

SAP® Environment, Health, and Safety Management Component Extension 4.0 for SAP EHS Management



Document History

Version	Date	Change
1.0	2013-07-29	First published version
1.1	2013-09-06	Correction of typos and links
1.2	2013-10-09	Corrections of format
2.0	2013-10-30	Chapter 1.3 - adding an important note
2.1	2014-01-08	Chapter 2.2 -adding clarification in part "Required"
2.2	2014-02-10	Chapter 1.3: SAP notes 1916079 + 1976155 added Chapter 6.2.2.1Table UWL enhanced Chapter 6.2.2.2. first table enhanced
2.3	2014-07-10	Chapter 6.2.4.1 Upgrade for product compliance: prerequisites added
2.4	2014-07-16	Chapter 2.5.1 with details for User Interfaces added
2.5	2014-09-09	Chapter 1.3 Note 2002786 added
2.6	2015-02-11	In Chapter 1.3 Important SAP Notes SAP Note for SPO2 added Chapter 7 correction of link to installation guides Correction of typos
2.7	2015 - 11 -18	Chapter 6.2.4.2 Upgrade from Component Extension 4.0 for SAP EHS Management for Product Compliance , details for weight tolerance and IMDS10.0 adoptions is added
2.8	2016-08-26	Chapter 1.3 Important SAP Notes updated with SAP note 1995776

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1 Getting Started

Component extension 4.0 for SAP Environment, Health, and Safety Management (SAP EHS Management) is an add-on to *SAP ERP* and supports your organization in managing business processes related to environment, health, and safety. Component extension 4.0 provides comprehensive functionalities to support you in managing incidents, assessing risk, and complying with product compliance requirements.

This add-on features integration points with other SAP components throughout the solution and a foundation layer that connects the processes of SAP EHS Management to the SAP Business Workflow engine.

If you use existing components in the application SAP EHS Management as part of *SAP ERP* (not an add-on) that support managing incidents and accidents and assessing risk, or if you use *SAP Product and REACH Compliance* for managing product compliance, they are still supported. However, further enhancements of these components are only developed in this add-on.

1.1 About this Document

Purpose

This Master Guide is the central starting point for the technical implementation of the *SAP EHS Management* add-on. Use the Master Guide to get an overview of *SAP EHS Management*, its software units, and how it supports you from a technical perspective.

Note

The central starting point for the technical upgrade of your SAP application/solution is the Master Guide, which you can find on *SAP Service Marketplace* at <http://service.sap.com/instguides>.

The Master Guide is a planning tool that helps you to design your system landscape. It refers you to the required detailed documentation, mainly:

- Installation and security information
- SAP Notes
- SAP Help documentation

In this Master Guide, you can find business process-specific information for the following processes:

- Managing Incidents
- Managing EHS Risks
- Managing EHS Locations
- Managing Product Compliance
- Managing IMDS Compliance

If you already use *SAP EHS Management* as part of *SAP ERP* and the product compliance functionality of *SAP Product and REACH Compliance*, you can also learn about how to migrate your data to the add-on *SAP EHS Management*. The central starting point for information about the migration of your existing EHS data to *SAP EHS Management* is the Migration Guide.

The Master Guide consists of the following main sections:

1. Getting Started

This section provides an introduction of what to expect from this Master Guide, planning information, important links, and SAP Notes.

2. Overview of Component Extension 4.0 for *SAP EHS Management*

This section provides an introduction to *SAP EHS Management*, mainly its software units, integrated application components, third party components, system landscape and overall implementation sequence.

3. Business Scenario: Health and Safety

This section describes the business processes used for this scenario and any relevant implementation considerations.

4. Business Scenario: Product Compliance

This section describes the business processes used for this scenario and any relevant implementation considerations.

5. Solution-Wide Topics

This section describes integration topics and relevant implementation considerations

6. Upgrade Information

This section describes different upgrade processes that depend on your source release.

7. References

This section lists documents and sources used in this guide.

Note

You can find the most current information about the technical implementation of *SAP EHS Management* on *SAP Service Marketplace* at <http://service.sap.com/instguides>.

We strongly recommend that you use the documents available here. The guides are regularly updated.
Put your note here

Constraints

- The business scenarios that are presented here serve as examples of how you can use SAP software in your company. The business scenarios are only intended as models and do not necessarily run the way they are described here in your customer-specific system landscape. Check your requirements and systems to determine if scenarios can be used productively at your site. Furthermore, we recommend that you test these scenarios thoroughly in your test systems to ensure they are complete and free of errors before going live.
- This Master Guide primarily discusses the overall technical implementation of *SAP EHS Management*. This means that additional software dependencies might exist without being mentioned explicitly in this document.

1.2 Related Information

1.2.1 Planning Information

For more information about planning topics not covered in this guide, see the following content on *SAP Service Marketplace*:

Content	Description	Location on SAP Service Marketplace
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.	http://service.sap.com/instguides → <i>SAP Business Suite Applications</i> → <i>SAP EHS Management</i> → <i>Component Extension for SAP EHS Management</i> → <i>Release 4.0</i>
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.	
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.	
SAP EHS Management Migration Information	Learn about migrating data from <i>SAP EHS Management</i> as part of <i>SAP ERP</i> and the product compliance functionality of <i>SAP Product and REACH Compliance</i> to this add-on.	
General information about SAP EHS Management		http://service.sap.com/ehs
Released platforms and technology-related topics such as maintenance strategies and language support		http://service.sap.com/platforms To access the Platform Availability Matrix directly, enter http://service.sap.com/pam .
Network security		http://service.sap.com/securityguide
High Availability		http://www.sdn.sap.com/irj/sgdn/ha
Performance		http://service.sap.com/performance
Information about Support Package Stacks, latest software versions and patch level requirements		http://service.sap.com/sp-stacks
Information about Unicode technology		http://www.sdn.sap.com/irj/sgdn/i18n

1.2.2 Further Useful Links

The following table lists further useful links and their location:

Content	Location on SAP Service Marketplace
Application Help	See SAP Help at http://help.sap.com/ under <i>SAP Business Suite</i> → <i>SAP EHS Management</i> → <i>Component Extension for SAP EHS Management</i> → <i>Release 4.0</i>
Role documentation for <i>SAP NetWeaver</i> Business Client and for the Business Package (Portal Content)	See SAP Help at http://help.sap.com/ under <i>SAP Business Suite</i> → <i>SAP Environment, Health, and Safety</i> → <i>Component Extension for SAP EHS Management</i> → <i>Component Extension 4.0 for SAP EHS Management</i> . On the page navigate to Application Help and open the SAP Library in your preferred Language. Application Help and open the SAP Library in your preferred language. In the SAP Library navigate: <i>Foundation for EHS Management</i> → <i>Roles</i>
BI Content for EHS Management	See SAP Help at http://help.sap.com under <i>SAP NetWeaver</i> → <i>BI Content Choose documentation for Content 7.37 or 7.47</i>
<i>SAP NetWeaver</i> Business Client	See SAP Help at http://help.sap.com/ under <i>SAP NetWeaver</i> → <i>SAP NetWeaver 7.0 Library (including Enhancement Package 2)</i> → <i>SAP NetWeaver by Key Capability</i> → <i>Application Platform by Key Capability</i> → <i>ABAP Technology</i> → <i>UI Technology</i> → <i>SAP NetWeaver Business Client</i>
Information about creating incident messages	Http://service.sap.com/incident
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

1.3 Important SAP Notes

You must read the following SAP Notes before you start the installation. These SAP Notes contain the most recent information on the installation, as well as corrections to the installation documentation.

Make sure that you have the up-to-date version of each SAP Note, which you can find on *SAP Service Marketplace* at <http://service.sap.com/notes>.

Information about Installation

SAP Note Number	Title	Description
1861693	Component Extension 4.0 for <i>SAP EHS Management</i> : RIN	Release Information Note
1808983	Installation / Delta Update of EHSM 400 on <i>SAP ERP</i>	
2043599	Installation / Delta Update of EHSM 400 on <i>SAP ERP</i>	
1887938	SAP EHSM 400: Information about migration	Learn about migrating data from <i>SAP EHS Management</i> as part of <i>SAP ERP</i> and the product compliance functionality of <i>SAP Product and REACH Compliance</i> to this add-on.
766191	Active Component Framework Installation	Read this SAP note for information about installing the ACF if you want to work on Microsoft Office documents (Microsoft Excel and Microsoft Word) as part of an investigation step in incident management or as part of an analysis method in risk assessment.
1789743	Output length for domains with the data type UNIT	Apply this note before installing Component Extension 4.0 for <i>SAP EHS Management</i> to avoid a problem on activating data dictionary during installation.
1728946	Central Browser Note for NetWeaver	Read this SAP note for information for information about supported Web Browsers.
1566444	Main Browser Note for BS7i2010	Read the SAP note which corresponds to your version of <i>SAP ERP</i> for information about supported Web Browsers.
1574357	Main Browser Note for BS7i2011	
1853989	Main Browser Note for BS7i2013	
1830437	Supported scenarios for installation of SPRC 2.0 and EHSM	Read this SAP Note for supported installation scenarios of the component extension for <i>SAP EHS Management</i> and <i>SAP Product and REACH Compliance 2.0</i> .
1916079	Clear POWL caches	Read this SAP note for information about how to reset POWL caches.

The following SAP Notes are either mandatory to ensure faultless operation or are recommended for improving the operation of component extension 4.0 for *SAP EHS Management*. Apply the SAP Notes listed in SAP Notes as well as any additional SAP Notes according to the base *SAP ERP* system that you use.

- SAP Notes
- Additional SAP Notes for Add-On Based on [SAP ERP 605](#)
- Additional SAP Notes for Add-On Based on [SAP ERP 606](#)

Note that in the tables, the column Description provides information if the SAP Note is only relevant for a specific component of [SAP EHS Management](#) or for a specific integrated component. If you do not use the component, you must not implement the SAP Note even if it is classified as Mandatory.

SAP Notes

SAP Note Number	Title	Description	Mandatory/Recommended
1313850	Release Restrictions for SAP EHP 2 for SAP NetWeaver 7.0	Read this SAP Note for more information if you plan to use the forms of SAP EHS Management in languages that use right to left alignment.	Recommended
1976155	ENA returns a wrong node entry	Apply this SAP Note to avoid data inconsistencies.	Mandatory
1449845	BAPI_PTMEOVERVIEW_GET: Multiple entries in RETURN	Apply this SAP Note on your HR system to avoid duplicated error messages when time data from HR is read from incident management. With this SAP Note also the performance is enhanced when extracting time data into Business Intelligence.	Recommended
1486653	NW BI 7.01: Context menu: Entry in WAD cannot be deactivated	Apply this SAP Note on your BW system, if you want to define KPI limits for incident dashboards.	Mandatory
1526402	Implicit check of RFC authorization	Apply this SAP Note on your HR system, if you use SAP_HRGXX with one of the versions and SPs mentioned in the SAP Note.	Mandatory
1534362	Reading data in the HRMS	Apply this SAP Note on your HR system, if you use SAP_HRGXX with one of the versions and SPs mentioned in the SAP Note.	Mandatory
1539317	Restrictions on form layout mirroring	Check the information in this Note if you need right-to-left aligned SAP Interactive Forms by Adobe for the languages Hebrew and Arabic.	Mandatory
1580524	Xcelsius Dashboard does not display variable popup	Apply this SAP Note on your BW system, if you use the SAP BusinessObjects dashboards of SAP EHS Management .	Mandatory
1581936	Reading data in the Human Resource Management System	Apply this SAP Note on your HR system, if you use SAP_HRGXX with one of the versions and SPs mentioned in the SAP Note.	Mandatory

SAP Note Number	Title	Description	Mandatory/Recommended
1583901	Error handling in the RFC to create Incident	Apply this SAP Note on your GRC system if you use the integration of incident management with GRC to improve error handling of the integration.	Recommended
1599624	Dashboard does not show any value if it contains only KFs	Apply this SAP Note on your BW system, if you use the SAP BusinessObjects dashboards of <i>SAP EHS Management</i> .	Mandatory
1673704	Query including count on key figure fails to generate	Apply this SAP Note if you use BI Content and NW 7.30 up until (and including) SPO6.	Recommended
1696615	BEx Query terminates with short dump 'GET_COB_PRO-01-'	Apply this SAP Note to solve a system dump in <i>SAP NetWeaver</i> Business Warehouse when executing queries.	Recommended
1766764	NWBC: Execution of transactions after loading	Apply this SAP Note to avoid an error when calling transactions from NWBC	Mandatory
1748036	SAP NWBC 3.0 ABAP Runtime Patch 23	Apply this SAP Note to solve an error which hides the "Services" menu items in the NWBC menu	Mandatory
1675873	System messages during logon cause crash	Apply this SAP Note to avoid a potential system dump when calling transactions from NWBC	Recommended
1739930	Fix for the link column missing in the attachment folder tab	Apply this SAP Note to solve an error which hides links to documents in document screens.	Recommended
1797388	Webdynpro: Conversion for non-printable characters	Apply this SAP Note to solve a problem with texts longer than 132 characters.	Recommended
1782445	Remote enabled change request creation	Apply this SAP Note on your system for SAP Management of Change if you use the integration with SAP Management of Change.	Mandatory
1763600	POWL: Detail area hidden on any ALV standard	Apply this SAP Note to solve problems with the shown detail area of POWLs.	Recommended
1617578	Incorrect results for SELECT with correlated subquery	Apply this SAP Note when you are using MaxDB as database system for <i>SAP EHS Management</i> .	Mandatory
1586415	FPM: List Component: Filter and display types	Apply this SAP Note to enable filtering on hyperlinks	Recommended
1818466	Internal application error of business object	Apply this SAP Note to avoid a potential system dump when renaming documents	Recommended
1821791	F4 help: Long selection condition	Apply this SAP Note to allow long values to selection conditions in value helps	Recommended
1819563	FPM Mess. Manager: Duplicate messages when	Apply this SAP Note to avoid duplicate messages	Recommended

SAP Note Number	Title	Description	Mandatory/Recommended
	closing personal.		
1790994	Hazard-related proposals for health surveillance protocols	Apply this SAP Note on your system for Occupational Health (EHS-HEA) in <i>SAP ERP</i> Central Component if you intend to use the integration as described in chapter 2.3.1 Integrated Application Components for Health and Safety	Mandatory
1774739	Value helps containing domain range values not recognized	Apply this SAP Note to solve an issue on value helps	Recommended
1722016	Search help for Standard Workbreakdown Structure dumps	Apply this SAP Note to solve a dump in the value help for the standard work breakdown structure	Recommended
1835218	IFbA: SET LOCALE in inbound process for offline forms	Apply this SAP Note together with 1847176 to solve an error on the inbound processing of Adobe Interactive Forms	Recommended
1847176	Dump at submitting inquiries in different language	Apply this SAP Note together with 1835218 to solve an error on the inbound processing of Adobe Interactive Forms	Recommended
1818223	FPM: List Component (old list UIBB): Setting the focus	Apply this SAP Note to improve focus handling in lists	Recommended
1768373	POWL: Lead selection changes when selecting multiple lines	Apply this SAP Note to solve issues with selections in POWLs.	Recommended
1850711	Leading zeros of specification id are displayed	Apply this SAP Note to ensure consistent handling of leading zeroes of the specification id.	Recommended
1673704	Query including count on key figure fails to generate	Apply this SAP Note to be able to activate the BI content of EHSM	Mandatory
1725203	A query cannot be generated	Apply this SAP Note to be able to activate the BI content of EHSM	Mandatory
1762908	Wrong DTPs after process chain activation w/ source systems	Apply this SAP Note to be able to activate the correct DTPs	Mandatory
1789776	Xcelsius Dashboard: activation from BI Content fails	Apply this SAP Note to be able to activate the Xcelsius dashboards for EHSM	Mandatory
1630248	SP30:Field descriptions of Error stack gets lost	Apply this SAP Note to avoid short dumps during content activation	Mandatory
1821727	POWL: Detail area not updated in accordance with current lead selection	Apply this SAP Note to solve issues with selections in POWLs.	Recommended
1883305	F4 sequence (attribute) = 0	Apply this SAP Note to make sure the	Recommended

SAP Note Number	Title	Description	Mandatory/Recommended
	for content IOBJ	InfoObject OEH_LOCATIN can be activated properly in BW. Otherwise the F4 help for locations on BW reports may be hard to read because too many attributes are being displayed.	
1781996	Incorrect due date displayed for workitems in the worklist	Apply this SAP Note to avoid potentially incorrect due dates in the work list	Recommended
1842862	MessageArea line break for long messages	Apply this SAP Note to improve readability of long messages	Recommended
2002786	POWL: Table is rendered blank on switching between queries	Apply this SAP note to avoid problems in dynamic screen rendering	Recommended
1995776	ITS up/down: RESTGUI dialogs instead of applet execution	Apply this SAP note to avoid problems of the frontend services methods such as upload and download using a java applet.	Mandatory

Additional SAP Notes for Add-On Based on SAP ERP 605

SAP Note Number	Title	Description	Mandatory/Recommended
1796505	Corrections for unified rendering 702/13 IV (UR-mimes)	Apply this SAP Note to solve a problem that disabled buttons are shown as enabled. In addition the note solves performance issues with Internet Explorer 8.	Recommended
1841663	Corrections for unified rendering 702/14 IV (UR-mimes)	Apply this SAP Note to solve a problem that disabled URLs are not displayed as disabled	Recommended
1554754	FPM: List Component: Lead selection and filtering	Apply this SAP Note to solve a problem that the lead selection in a list is wrongly set after filtering	Recommended
1852331	Corrections for unified rendering 702/14 V (UR-mimes)	Apply this SAP Note to solve a problem that too few values are displayed in the suggested values for an input field	Recommended
1879254	Corrections for unified rendering 702/15 I (UR-mimes)	Apply this SAP Note to solve problems related to the suggested values of input fields	Recommended

Additional SAP Notes for Add-On Based on SAP ERP 606

SAP Note Number	Title	Description	Mandatory/ Recommended
1755088	DDIC input help: Dump when you maintain personal value list	Apply this SAP Note to solve a system dump when maintaining a personal value list within a value help	Recommended
1798727	Corrections for Unified-Rendering up to SAP_BASIS 731/06 II	Apply this SAP Note to solve a problem not being able to upload documents to an Incident	Mandatory
1842228	Attachment Folder as List UIBB: Selected Lines are Empty	Apply this SAP Note to solve an error that selected lines are empty in various screens for documents	Recommended
1819455	132 Chars Restriction of CL_WDR_CONVERSION_UTILS	Apply this SAP Note to solve an error that texts longer than 132 characters are not converted correctly	Recommended
1873514	Corrections for unified rendering up to SAP_BASIS 731/08 IV	Apply this SAP Note to solve a problem on auto-completion of entered values in input fields	Recommended
1881858	Inconsistent Proxy to Webservice in Enterprise Portal	Apply this note to avoid an error message when you are using the portal.	Mandatory if Enterprise Portal is used
1776839	FPM: Tree Component: selection event not raised	Apply this note to trigger a selection event when clicking inside a cell in the tree	Mandatory

2 Overview of Component Extension 4.0 for SAP EHS Management

Component extension 4.0 for *SAP EHS Management* is based on the *SAP ERP* application and *SAP NetWeaver*. It is a Web-based application that is realized in Web Dynpro (ABAP).

This add-on provides integration points throughout the application to other SAP systems, such as Human Capital Management, Plant Maintenance, and Financials and also to externally hosted systems via the Internet, such as the International Material Data System (IMDS) for product compliance in the automotive industry. Integration is described in section 2.3 Integrated Application Components.

SAP EHS Management also utilizes existing tools, such as the SAP Business Workflow to provide the engine for its process foundation, and SAP Interactive Forms by Adobe to collect information in questionnaires and to create print forms in PDF format.

To get an overview of your data, you can use *SAP NetWeaver* Business Warehouse and BI content to generate analytical reports, or you can use file-based reporting to generate analytical reports.

This section provides an overview of the required and optional software components and tools, integrated application components, and third party components that you can use in *SAP EHS Management*.

2.1 Software Units of Component Extension 4.0 for SAP EHS Management

Recommendation

If you are not familiar with the business scenarios and processes in *SAP EHS Management*, we recommend reviewing chapters 3 Business Scenario: Health and Safety and 4 Business Scenario: Product Compliance.

2.2 Software Component Matrix

The following table contains an overview of the software components that are required or optional in *SAP EHS Management*. The current details, you find In SAP Note [1808983](#).

Required/ Optional	Software Component	Version	Comment
Required	Component extension for <i>SAP EHS Management</i>	4.0	
	<i>SAP NetWeaver</i>	SAP enhancement package 2 for <i>SAP NetWeaver</i> 7.0 SP Stack 12 or higher. Or SAP enhancement package 3	

Required/ Optional	Software Component	Version	Comment
		for SAP NetWeaver 7.0 SP Stack 05 or higher. Or SAP NetWeaver 7.4 SP Stack 03 or higher.	
	SAP ERP	SAP enhancement package 5 for SAP ERP 6.0 SP Stack 09 or higher Or SAP enhancement package 6 for SAP ERP 6.0 SP Stack 05 or higher Or SAP enhancement package 7 for SAP ERP 6.0 SP Stack 01 or higher	
	Backend Event Provider (SAP IW BEP)	2.0 SPO6 or higher	
	SAP NetWeaver Application Server (Java)	SAP enhancement package 2 for SAP NetWeaver 7.0 or higher	Required for ADS
	Adobe Document Services (ADS)	Version delivered with the appropriate NetWeaver J2EE Server	
Optional	SAP NetWeaver Business Client	3.0 SP PL11	
	SAP NetWeaver Portal	SAP NetWeaver 7.0 or higher	If you use SAP NetWeaver 7.3 , you need to install SPO4 to ensure that the portal functions properly. If you use SAP NetWeaver 7.31 , you need to install SPO6 to ensure that the portal functions properly.
	Business Package for EHS Management	4.0	Contains portal content and roles.
	SAP Active Component Framework (ACF)	7.12 PL 26	Required if you want to work on Microsoft Office documents (Microsoft Excel and Microsoft Word) as part of an investigation step in incident management or as part of an analysis method in risk assessment. For more information about installing the ACF, see SAP Note 766191.

Required/ Optional	Software Component	Version	Comment
The following components are optional. However, if you want to use <i>SAP NetWeaver</i> Business Warehouse and BI content (see Integration of SAP BusinessObjects (Dashboards)), the components are required.			
Optional	<i>SAP NetWeaver</i> Application Server (ABAP)	<i>SAP NetWeaver</i> BW 7.30 (SP08) or higher	
	BI Content (Use one of the listed content packages)	7.37 SP06 Technical content package: BI_CONT 7.37	For <i>SAP NetWeaver</i> Business Warehouse 7.30 (SP08 or higher)
		7.47 SP06 Technical content package: BI_CONT 7.47	For <i>SAP NetWeaver</i> Business Warehouse 7.31 (SP05 or higher)
	BI Content Extension (SAP BusinessObjects Dashboards) (Use one of the listed content packages)	7.37 SP06 Technical content package: BI_CONT_XT 7.37	For <i>SAP NetWeaver</i> Business Warehouse 7.30 (SP08 or higher)
		7.47 SP06 Technical content package: BI_CONT_XT 7.47	For <i>SAP NetWeaver</i> Business Warehouse 7.31 (SP05 or higher)
	<i>SAP NetWeaver</i> Application Server (Java)	<i>SAP NetWeaver</i> 7.30 (SP07) or higher or <i>SAP NetWeaver</i> 7.31 (SP05) or higher	Including BI-Java, EPC, EP (EPC includes the iView for dashboards)
	Adobe Flash Player	Version 9 or higher	Required for dashboards
	The following component is optional. However, if you want to use an SAP-defined Web service (an Enterprise service) to record incidents for incident management, the components are required. For more information about the service, see Optional Software Units under Managing Incidents.		
Optional	Component extension for <i>SAP EHS Management</i> - XI Content	4.0	
	<i>SAP NetWeaver</i> PI	7.0 or higher	
The following component is optional. However, if you want to use the Enterprise Search services for incident management, the component is required.			
Optional	<i>SAP NetWeaver</i> Enterprise Search	7.10, Revision 27	<i>SAP NetWeaver</i> standalone engine
	Search and Classification (TREX)		
The following components are optional. However, if you want to collaborate with partners for product			

Required/ Optional	Software Component	Version	Comment
declarations or want to communicate data to IMDS, you can use the corresponding components.			
Optional	<i>SAP Product Stewardship Network</i> (An <i>SAP EHS Management</i> OnDemand solution)		<i>SAP Product Stewardship Network</i> is integrated into the compliance interfaces in a business context viewer side panel. The other place where <i>SAP Product Stewardship Network</i> is integrated is the Regulatory Management UI. The integration allows updating existing or creating a new revision with content provided by <i>SAP Product Stewardship Network</i> . For more information, see Customizing for <i>SAP EHS Management under Product Compliance</i> → <i>Integration</i> → <i>SAP Product Stewardship Network</i> .
	International Material Data System (IMDS) Batch client		The IMDS batch client is required to communicate with IMDS for the automotive industry.

For more information about the system prerequisites for using mandatory and optional software components, see 2.5 System Landscape.

2.3 Integrated Application Components

You can set up *SAP EHS Management* to use and integrate the functions of other SAP solutions as well as to provide data to other solutions that integrate with *SAP EHS Management*. The following sections each contain a table of the application components that *SAP EHS Management* integrates with and a second table of the application components that integrate to *SAP EHS Management*. The tables also include any special installation requirements and how these components support your business scenarios in *SAP EHS Management* for health and safety, and product compliance.

For an overview of all integrated components and their use in *SAP EHS Management*, see SAP Help at <http://help.sap.com/ehs-comp> → *Application Help* → *SAP Library (for your language)*, then navigate through the structure by choosing *SAP EHS Management* → *Foundation for EHS Management (EHS-MGM-FND)* → *Integration*.

2.3.1 Integrated Application Components for Health and Safety

Note that the integrated application components are used in the business processes relevant for managing health and safety and are described in the following chapters:

- 3.1 Managing Incidents

- 3.2 Managing EHS Risk
- 3.3 Managing EHS Locations

i Note

Some data described in Table 1: Integration from Health and Safety to Other Application Components must be available on the local system. For more information about the specific data that must be available on the local system, see the documentation for Customizing activity [Specify Destination for Integration under SAP EHS Management → Foundation for EHS Management → Integration](#).

Table 1: Integration from Health and Safety to Other Application Components

Application Component	Special Installation Requirements	Usage in SAP EHS Management
SAP Business Partner	Specific business partner roles must be available locally. R/3 Enterprise 4.70 Extension Set 2.00 (Basis 620) or higher is required for the remote system	Call of RFC-enabled function modules enable data from SAP Business Partner to be read, changed, and created directly from SAP EHS Management .
Plant Maintenance (PM)	Specific PM data must be available locally. R/3 Enterprise 4.70 Extension Set 2.00 (Basis 620) or higher is required for the remote PM system. SAP ERP 6.0, enhancement package 5 or higher is required for locations to read geo location data and partner data of a linked PM technical object.	You can use RFC-enabled function modules to use PM data in the following ways: Read and replicate data for PM technical objects (functional locations, sites, vehicles, and equipment) Read and create PM notifications Read and create maintenance orders. Maintenance orders are also a cost collector for financial tracking in incident management. Partner data (such as function, name, and address)
	SAP ERP 6.0, enhancement package 5 or higher and activation of business function LOG_EAM_SIMPLICITY	Navigate to PM Web Dynpro screens to view details of technical objects that are assigned to locations
Materials Management (MM)	Materials must be available locally.	Material numbers and material descriptions can be read.
Customer Service (CS)	Specific CS data must be available locally. R/3 Enterprise 4.70 Extension Set 2.00 (Basis 620) or higher is required for the remote CS system	Call of RFC enabled function modules enable CS notifications to be read and created. Service orders are also a cost collector for financial tracking in incident management.
Quality Management (QM)	Specific QM data must be available locally. SAP ERP 6.0 (Basis 700) or higher is required for the remote QM system	Call of RFC enabled function modules enable QM notifications to be read and created.

Application Component	Special Installation Requirements	Usage in <i>SAP EHS Management</i>
Personnel Management (PA)	R/3 Enterprise 4.70 Extension Set 2.00 (Basis 620) or higher is required for the remote system	Call of RFC enabled function modules enable data for employees and applicants to be read.
Personnel Time Management (PT)	R/3 Enterprise 4.70 Extension Set 2.00 (Basis 620) or higher is required for the remote system	Call of RFC enabled function modules enable data for absences to be read from PT and assigned to an incident, and enables data for absences to be created directly in PT (optional).
Organizational Management (PA-OS)	Only locally. If the original system for Organizational Management is not the local system, then ALE distribution into the local system shall be performed. To make the person information available, distribution of the relevant HR data (HR minimaster) is required.	Different structure information that is used, for example, "Find line manager", "Find team members", organizational unit hierarchy, organizational assignment of incidents, organizational assignment of locations. Read positions and assign to locations and jobs. Read assigned objects (such as persons) to positions.
Accounting (AC)	R/3 Enterprise 4.70 Extension Set 2.00 (Basis 620) or higher is required for the remote system	Call of RFC enabled function modules enable data for internal orders to be read and created. Internal orders are a cost collector for financial tracking in incident management.
Currency Conversion/Expiring Currency (BC-SRV-BSF-CUR)	Only locally We recommend distributing this data via Application Link Enabling (ALE). This way, you can update the data regularly.	Currency and exchange rate data can be read.
Hazardous Substance Management in SAP ERP Central Component	R/3 Enterprise 4.70 Extension Set 2.00 (Basis 620) or higher is required for the remote system	Replication of data of chemicals and listed substances relevant for risk assessment from the specification management.
SAP Management of Change	SAP Management of Change 1.0, SP02 or higher. Alternatively to using SP02, you can apply SAP Note 1782445.	Call of RFC enabled function modules enable the creation of Change Requests in SAP Management of Change as a corrective or preventive action triggered by an incident or risk assessment.
Occupational Health (EHS-HEA) in SAP ERP Central Component	SAP ERP 6.0 (Basis 700) SP23 or higher is required for the remote EHS-HEA system. Alternatively to using SP23 or one of its	Call of RFC enabled function modules enable proposing health surveillance protocols

Application Component	Special Installation Requirements	Usage in <i>SAP EHS Management</i>
	equivalents you can apply SAP Note 1790994.	based on risks. Alternatively such health surveillance protocols can also be proposed to third-party occupational health systems, by implementing a BAAdI.
Incident and Risk Assessment Archiving	SAP Basis Component release 702 SP11 or higher is required to enable ILM on the EHHSS_INC archiving object. Activate ILM in the Switch Framework (transaction SFW5).	The EHHSS_INC archiving object complies with the rules of Information Lifecycle Management (ILM). To enable ILM, you should install the SAP Basis Component. Otherwise, you can still use the archiving object but it does not comply with the ILM rules.

Table 2: Application Components that Integrate to Health and Safety

Application Component	Special Installation Requirements	Usage in SAP EHS Management
Plant Maintenance (PM)	<i>SAP ERP</i> 6.0 enhancement package 6 or higher and activation of business function /EAMPLM/LOG_EAM_WS is required for activation of integration of risk assessment with the worker safety feature in PM	Communication of risk information (such as risk, controls, and safety measures) from risk assessment to PM when the risk assessment status is set to Closed.
SAP Management of Change	SAP Management of Change 1.0, SP01 or higher	Call of RFC enabled function module enables a user of SAP Management of Change to send a risk assessment request from their system to the <i>SAP EHS Management</i> system. You can simulate a risk assessment to fulfill the request.
SAP BusinessObjects Risk Management A component included in SAP BusinessObjects governance, risk, and compliance solutions (GRC solutions)	GRC 10.0 (based on NW 7.02) or higher	Call of RFC enabled function module enable incidents to be reported to risk management, depending on a certain severity level.

2.3.2 Integrated Application Components for Product Compliance

Note that the integrated applications are used in the product compliance processes that are described in the following chapters:

- 4.1 Managing Product Compliance
- 4.2 Managing IMDS Compliance

i Note

Some data described in Table 7: Integration from Product Compliance to Other Application Components must be available on the local system. For more information about the specific data that must be available on the local system, see the documentation for Customizing activity Specify Destination for Integration under [SAP EHS Management → Foundation for EHS Management → Integration](#).

Table 7 displays the application components that the product compliance component integrates with. Table 8 displays the application components that integrate with the product compliance component.

Table 3: Integration from Product Compliance to Other Application Components

Application Component	Special Installation Requirements	Usage in SAP EHS Management
SAP Business Partner	Specific business partner roles must be available locally. R/3 Enterprise 4.70 Extension Set 2.00 (Basis 620) or higher is required for the remote system	Read of business partner details.
Materials Management (MM)	Materials must be available locally.	Read of material number and description.
Purchasing (MM-PUR)	Suppliers must be available locally. Approved manufacturer parts lists and the purchasing info record with purchasing source list information must be available locally.	Read of supplier details, purchase info records, approved manufacturer part lists, and purchasing source list.
Bill of Material (Logistics (LO), Product Lifecycle Management (PLM))	Bill of materials must be available locally.	Read of bill of materials.
SAP Product Stewardship Network (An SAP EHS Management OnDemand solution)	Configure the Web service consumer clients	Call of Web service to enable integration of information from SAP Product Stewardship Network : Call SAP Product Stewardship Network web services Get compliance information from SAP Product Stewardship Network Get regulatory content information from SAP Product Stewardship Network

Table 4: Application Components that Integrate to Product Compliance

Application Component	Special Installation Requirements	Usage in SAP EHS Management
Materials Management (MM)	Material master transactions See customizing activity for configuration under SAP EHS Management → Product Compliance → Integration → Logistic	Call of RFC enabled function modules in the SAP EHS Management system enables the integration of compliance

Application Component	Special Installation Requirements	Usage in SAP EHS Management
	<i>Integration → Material Master.</i>	information into material master: Maintain basic material composition Show released compliance information
Purchasing (MM-PUR)	Purchase order transactions See Customizing activity under <i>SAP EHS Management → Product Compliance → Integration → Logistic Integration → Supplier and Purchasing → Integrate Compliance Information into Purchase Order.</i>	Call of RFC enabled function modules in the <i>SAP EHS Management</i> system enables the integration of compliance information into purchasing order transaction: Show released compliance information
Sales and Distribution (SD)	Sales order transactions See Customizing activity under <i>SAP EHS Management → Product Compliance → Integration → Logistic Integration → Customer and Sales → Integrate Compliance Information into Sales Order.</i>	Call of RFC enabled function modules in the <i>SAP EHS Management</i> system enables the integration of compliance information into sales order transaction: Show released compliance information
Product Lifecycle Management (PLM)	CAD Desktop	Show released compliance information Note: Can be implemented via RFC
<i>SAP Product Stewardship Network</i> (An <i>SAP EHS Management</i> OnDemand solution)	Configure the Web service consumer clients See Customizing activity under <i>SAP EHS Management → Product Compliance → Integration → SAP Product Stewardship Network → Specify SAP Product Stewardship Network Integration.</i>	Call of Web service to enable integration of information to <i>SAP Product Stewardship Network</i> : Provide compliance information to <i>SAP Product Stewardship Network</i> Provide regulatory content information from <i>SAP Product Stewardship Network</i>

2.4 Third Party Components

Although *SAP EHS Management* is not delivered with third-party components, you can use third-party components for the following functions:

- Map function for locations

To support you in managing EHS locations (see 3.3), you can integrate a third party map provider by implementing a Web Dynpro CHIP component. This component interprets and displays the address information from the location address. This allows users to see the position of a location on a map. For more information, see the Customizing activity Configure Integration of Map under *SAP EHS Management → Foundation for EHS Management → Locations*.

- Encryption function for inquiry forms

The inquiry forms used in *SAP EHS Management* can contain sensitive and confidential data. These forms are sent via e-mail. If you do not already use an encryption function, you can configure SAP connect to send e-mails via a secure e-mail gateway application that is capable of encrypting outbound and inbound e-mails. For more information, see SAP Help Portal for *SAP NetWeaver* under *SAP NetWeaver 7.0 (2004s) → SAP NetWeaver Library → Administrator's Guide → Technical Operations Manual for SAP NetWeaver → Administration of SAP NetWeaver Systems → AS ABAP (Application Server for ABAP) → Administration → SAP connect Communication Interface*. Note that in SAP connect Communication Interface under More Information, you can find general information about SAP connect.

- International Material Data System (IMDS)

To support you in managing IMDS compliance (see 4.2 Managing IMDS Compliance), you can integrate the IMDS advanced interface. *SAP EHS Management* supports IMDS release 7.2 /10.0. For more information, see Customizing for *SAP EHS Management* under *Product Compliance → IMDS Compliance*. For more information, see also <http://www.mdsystem.com>.

- Occupational Health

Alternatively to proposing health surveillance protocols based on risks into Occupational Health (EHS-HEA) in *SAP ERP* Central Component, you can also integrate a third-party Occupational Health system by implementing the BAdI for Occupational Health Integration. For more information, see Customizing for *SAP EHS Management* under *Risk Assessment → Integration → BAdI: Occupational Health Integration*.

2.5 System Landscape

This section describes several possible system landscapes and the prerequisites for using their mandatory and optional components. For more information about components and the minimum release information, see 2.2 Software Component Matrix.

Note

The system functions properly without optional servers and components. However, you may choose to include optional servers and components in your system landscape depending on your business needs. For more information about when you may want to use optional servers or components, see 3 Business Scenario: Health and Safety and 4 Business Scenario: Product Compliance.

2.5.1 User Interface

You can access the user interface of *SAP EHS Management* using the following user interface clients:

- *SAP NetWeaver* Business Client for Desktop
- SAP NetWeaver Business Client for HTML
- *SAP NetWeaver* Portal
- For more information about these user interface clients, see SAP Help at <http://help.sap.com/nw74> under *Application Help → UI Technologies in SAP NetWeaver → User Interface Clients*.

- We recommend that you access the user interface via *SAP NetWeaver* Business Client (NWBC) because it integrates the latest UI technologies.
- *SAP EHS Management* is optimized for the SAP Corbu theme. We recommend that you use SAP Corbu to ensure an optimal screen layout. For more information, see SAP Help at <http://help.sap.com/nw74> under *Application Help* → *UI Technologies in SAP NetWeaver* → *Theming and Branding*.

2.5.2 Full System Landscape

The full, productive system landscape of the *SAP EHS Management* add-on is based on *SAP ERP* and *SAP NetWeaver*.

The following graphic depicts the full system landscape:

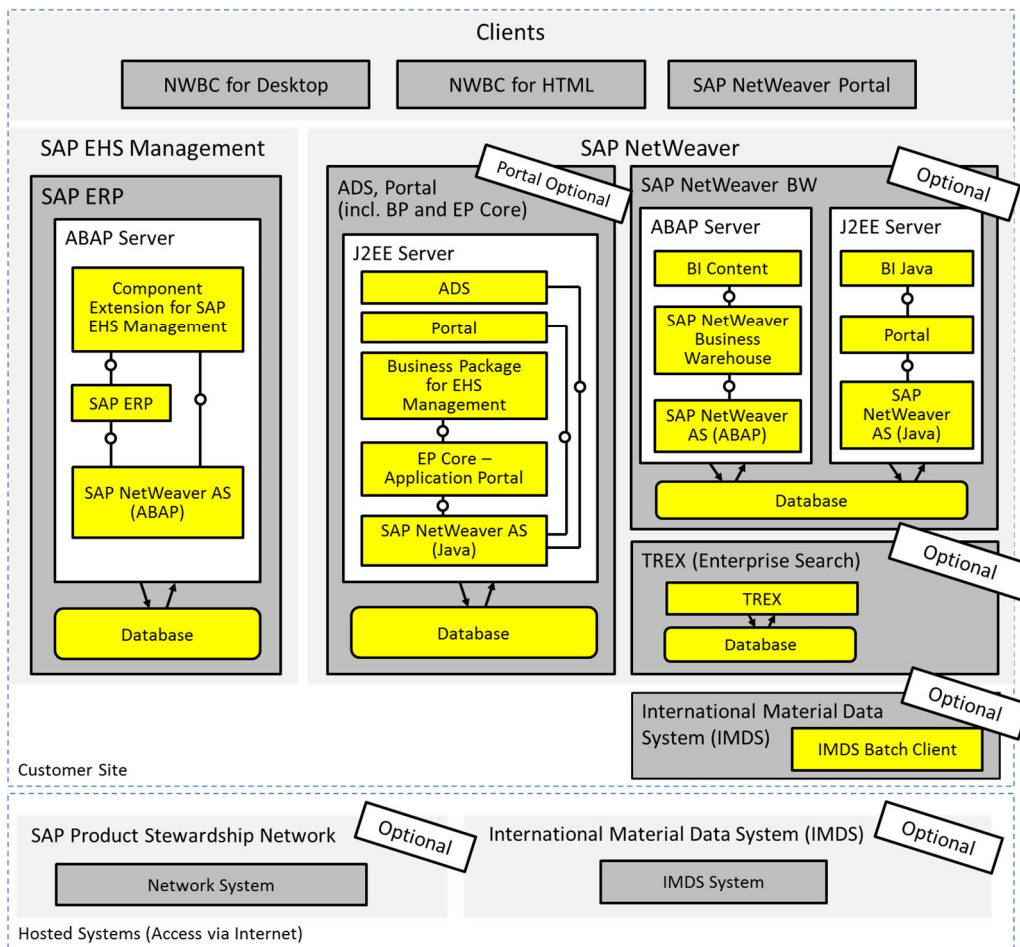


Figure 1: Full System Landscape

You can access the user interface of *SAP EHS Management* using the following clients:

- NetWeaver Business Client for Desktop
- NetWeaver Business Client for HTML
- *SAP NetWeaver* Portal

i Note

For more information about the recommended Web browsers, see the recommended browsers for *SAP EHS Management* on SAP Help at <http://help.sap.com/> under *SAP Business Suite* → *SAP*

Environment, Health, and Safety Management → Component Extension for SAP EHS Management → Component Extension 4.0 for SAP EHS Management → Application Help → Foundation for EHS Management → Roles → Business Package (Portal Content).

The full system landscape contains the following elements:

- **SAP ERP** on ABAP Server

SAP EHS Management is an add-on to *SAP ERP*. The *SAP EHS Management* add-on uses the *SAP ERP* application and *SAP NetWeaver* Application Server (*SAP NetWeaver AS*) for ABAP.

The components run on the same ABAP server as *SAP ERP*. This server exchanges data with the database.

- Portal (optional) and Adobe Document Services (ADS) on J2EE Server

In *SAP EHS Management*, you use Adobe Document Services (ADS) for local printing and for SAP Interactive Forms by Adobe. Optionally, you can use the *SAP NetWeaver* Portal (including Business Package for EHS Management and the EP Core - Application Portal).

The *SAP NetWeaver AS* for Java enables the Web services for these components. The components run on a J2EE server that exchanges data with the database.

- **SAP NetWeaver Business Warehouse (BW)**

Using the components of *SAP NetWeaver BW* is optional. The data entered into *SAP EHS Management* can be extracted and stored in BW for use in analytical reporting.

BI Content contains BW modeling/objects, BEx queries, and SAP BusinessObjects Dashboards. We recommend that you run BI Content, BW, and the corresponding *SAP NetWeaver AS* for ABAP on an ABAP server dedicated to analytical reporting.

You use BI Java to run SAP BusinessObjects Dashboards software and SAP Business Explorer (BEx) Web analyzer and to support local printing via the SAP List Viewer (ALV). BI Java can be deployed on the same J2EE server that is used for ADS, or together with the portal and the *SAP NetWeaver AS* for Java on a separate J2EE server (recommended). The portal is optional as a client, but technically required for SAP BusinessObjects Dashboards and BEx Web analyzer.

- TREX (Enterprise Search)

You can use *SAP NetWeaver* Enterprise Search to search for incidents in the application.

To use Enterprise Search, see also SAP Note [1164979](#).

- **SAP Product Stewardship Network**

Using the on demand networked application *SAP Product Stewardship Network* is optional. It enables you to download of regulatory content information as well as collaboration with business partners in complying with substance-related regulations, such as requirements for product declarations. This system is not installed at the customer site. You can access it via the Internet using calls to web service endpoints.

- International Material Data System (IMDS)

Using IMDS is optional. It enables the exchange of product-related data, such as material compositions within the automotive supply chain. This is required to comply with legal requirements such as the EU directive on end-of life vehicles. This system is not installed at the customer site. You can access it via the Internet.

For more information about the installation requirements, see SAP Note [1712603](#).

2.5.3 Minimum System Landscape

The minimum system landscape of the *SAP EHS Management* solution is based on *SAP ERP* and *SAP NetWeaver*.

The following figure illustrates the minimal system landscape:

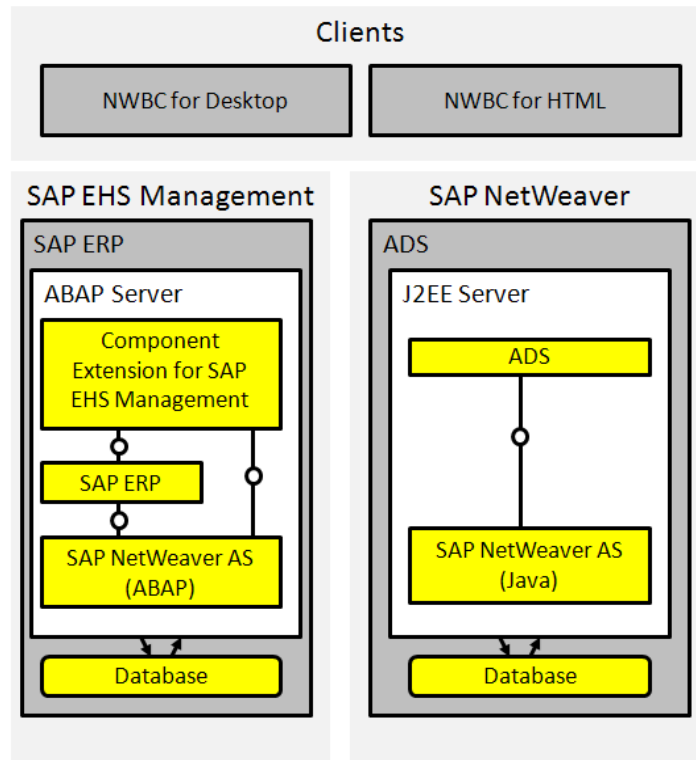


Figure 2: Minimum System Landscape

This landscape has a minimum number of required components to run the solution. The minimum system landscape contains the following elements:

- *SAP ERP* on ABAP Server
SAP EHS Management is an add-on to *SAP ERP*. The *SAP EHS Management* add-on uses the *SAP ERP* application and *SAP NetWeaver* Application Server (*SAP NetWeaver AS*) for ABAP.
 The components run on the same ABAP server as *SAP ERP*. This server exchanges data with the database.
- ADS on J2EE Server
 In *SAP EHS Management*, you use Adobe Document Services (ADS) for local printing and for SAP Interactive Forms by Adobe.
 The *SAP NetWeaver AS* for Java enables the Web services for these components. The components run on a J2EE server that exchanges data with the database.

2.5.4 Typical System Landscape

The typical system landscape of the *SAP EHS Management* solution is based on *SAP ERP* and *SAP NetWeaver*. The following figure illustrates the typical system landscape:

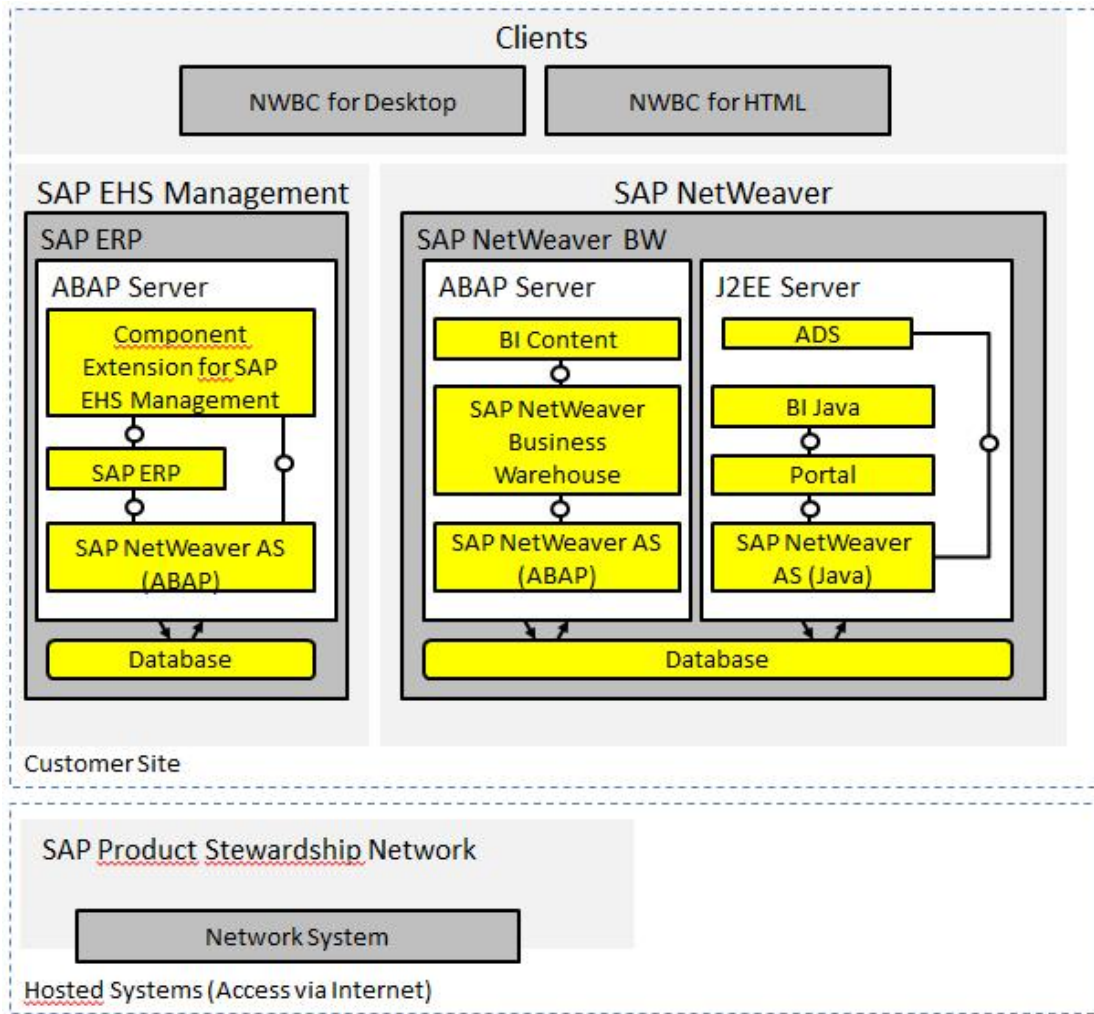


Figure 3: Typical System Landscape

A typical system landscape is the same as the minimum system landscape with the addition of a dedicated *SAP NetWeaver* Business Warehouse system.

2.6 Tools and Resources for Planning Your System Landscape

To plan your system landscape, you can use a few tools and resources that are available to you as SAP customer.

Table 5: Tools for Looking Up Information about Business Processes, Scenarios, and Implementable Steps

Tool	Purpose
Business process repository (BPR) viewer The BPR Viewer displays all descriptions, but only a selection of the configuration documentation. To view all configuration documentation, install and use <i>SAP</i>	To look up descriptions of business scenarios, business processes, and implementable steps Call up the BPR viewer directly using the Internet address https://implementationcontent.sap.com/bpr . Alternatively, you can also call up the Internet address http://service.sap.com/bpr first, to see more background

Tool	Purpose
<i>Solution Manager</i> at your customer site.	<p>information about the BPR viewer and additional material on SAP Service Marketplace.</p> <p>Select Solutions/Applications -> SAP EHS Management.</p> <p>Select the relevant scenario, for example, Health and Safety.</p> <p>Select the relevant business process, for example, Managing Incidents.</p>
<p>Scenario and process component list</p> <p>Enables you to find realization alternatives to SAP solutions, business scenarios, and processes for your solution.</p> <p>The SCL/PCL helps you to bridge the gap between the business view and the technical view in SAP's products. It shows you which application components are needed to realize a business scenario or a process and which business scenarios are possible with a given set of application components.</p>	<p>To look up the required components and releases for a business scenario, business process, or implementable step</p> <ol style="list-style-type: none"> 1. Go to SAP Service Marketplace at http://service.sap.com/scl. 2. To start the SCL/PCL, choose Start Application. 3. Select SAP Scenarios and Realization Alternatives. Search for the application SAP EHS Management.

Select a scenario and choose Next to display the realization alternatives. The SCL/PCL then lists the different possibilities. With options such as Validity you can switch between possible and impossible realization alternatives. The Optional Components dropdown list helps you to find the minimum required SAP product versions.

In addition, there are tools in *SAP Solution Manager* that support you before, during, or after the installation of your SAP product or SAP enhancement package. These tools include:

Table 6: Tools for Supporting Installations and Upgrades

Tool	Purpose
Solution Manager System Landscape	To model and set up your system landscape
<i>SAP Solution Manager</i> Maintenance Optimizer	To install support packages and SAP enhancement packages
Business process change analyzer (available with SAP enhancement package 1 for <i>SAP Solution Manager</i> 7.0)	To analyze the effects of transports and support packages as well as activation logs for business functions

i Note

As of *SAP Solution Manager* 7.0 with support package 23, these tools have been enhanced to provide better support for the setup of your system landscape and for installing and activating business functions. For more information, see SAP Library for *SAP Solution Manager* on SAP Help Portal at <http://help.sap.com>.

SAP Solution Manager: SAP EHS Management

To receive implementation content that supports you during the configuration of your business processes, business scenarios, and implementable steps, you need the *SAP Solution Manager* add-on Implementation Content ST-ICO_SP38 (SP38).

2.7 Integration Scenarios with ERP

You can run the following integration scenarios with ERP:

- Add-on is installed on top of the productive ERP system (see 2.7.1 Add-On Installed on Productive ERP).
- Add-on is installed side-by-side with the ERP system (see 2.7.2 Add-On Installed on ERP System (Operated Side-by-Side to an Earlier ERP System)).

2.7.1 Add-On Installed on Productive ERP

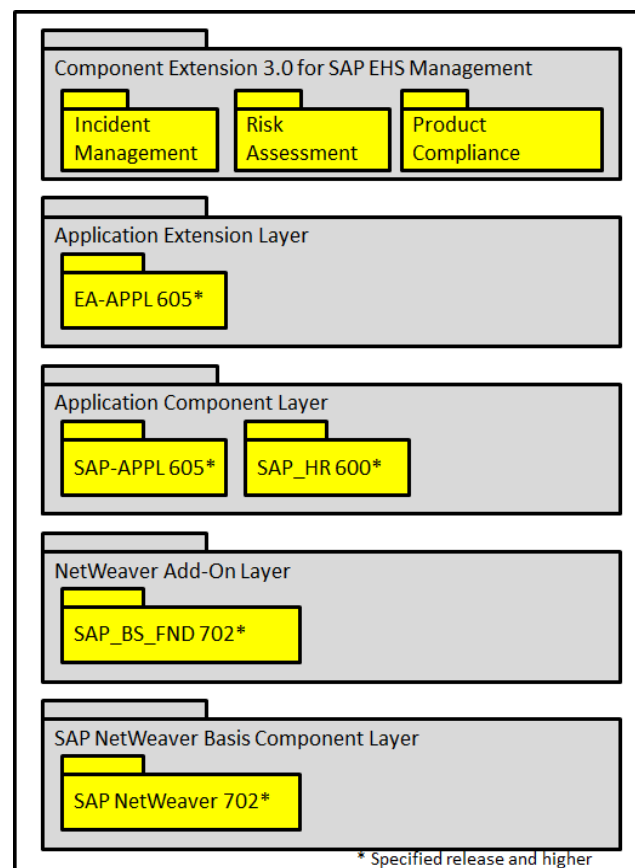


Figure 4 Deployment of *SAP EHS Management* as Add-On on Productive ERP System

Figure 4 depicts that you can deploy all components of *SAP EHS Management* as an add-on to a productive ERP system. In this scenario, you can use an ERP system that is upgraded to enhancement package 5 for the productive business processes, and the *SAP EHS Management* add-on for the supported components. The add-on reuses master data of the following lower software layers:

Application extension layer, including EA-APPL 605 and higher

Application component layer, including SAP-APPL 605 and SAP_HR 600 and higher

i Note

SAP_HR is only relevant for health and safety processes (see chapter 3).

- NetWeaver add-on layer, including SAP_BS_FND 702 and higher
- *SAP NetWeaver* Basis component layer, including *SAP NetWeaver* 702 and higher

2.7.2 Add-On Installed on ERP System (Operated Side-by-Side to an Earlier ERP System)

To enable existing customers that run a productive ERP system on an earlier release (earlier than 605) to benefit from the functions of *SAP EHS Management*, the customer can use a side-by-side scenario. In this scenario, the customer additionally installs and operates an ERP 605 system with this add-on. This 605 system (with the add-on) is dedicated to running *SAP EHS Management* only. All other business processes still run in the earlier ERP system. To run the side-by-side installation, the following two main scenarios are possible:

- Data is read remotely from the earlier ERP system by the 605 add-on system (see Figure 5 Side-By-Side Scenario: Data is Read Remotely).
- Data is replicated from the earlier ERP system to the 605 add-on system (see Figure 6 Side-By-Side Scenario: Data is Replicated).

Caution

Regardless of which side-by-side scenario you choose, there is specific data that can only be read locally. This data must be replicated. For more information about the specific data that must be replicated, see the Customizing activity Specify Destination for Integration under *SAP EHS Management* → *Foundation for EHS Management* → *Integration*.

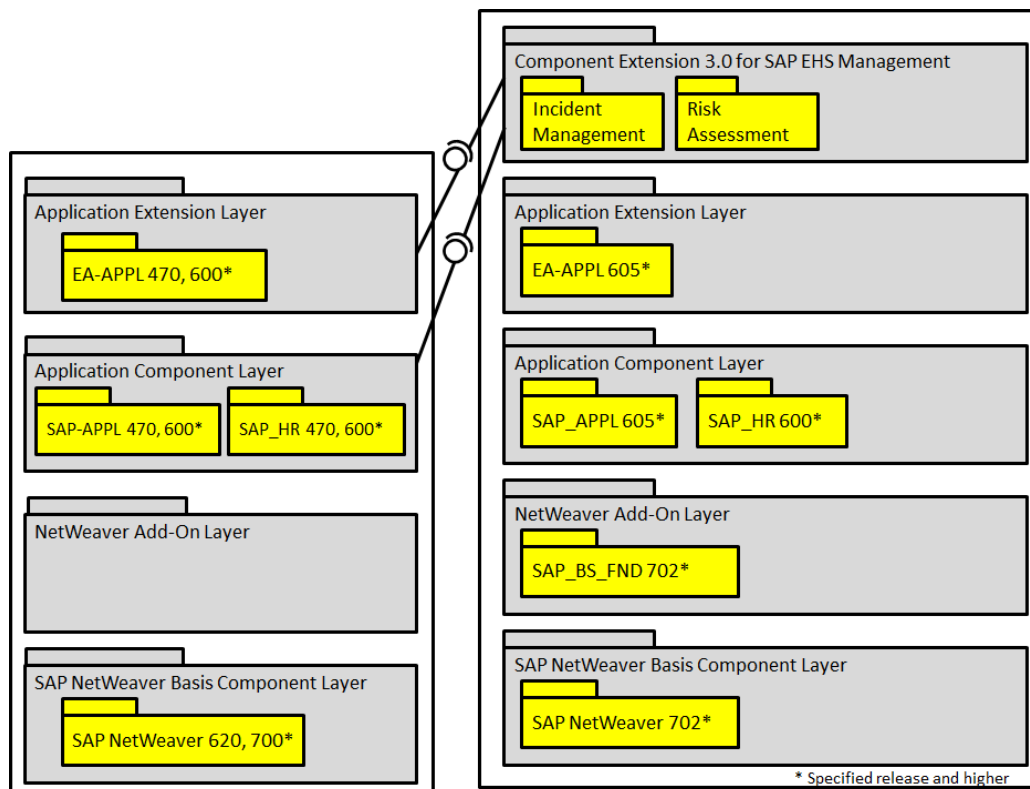


Figure 5 Side-By-Side Scenario: Data is Read Remotely

Figure 5 illustrates how you can use a side-by-side scenario for the health and safety processes of *SAP EHS Management*. Here, the *SAP EHS Management* system read data from the earlier ERP system remotely, specifically from the following software layers of the earlier ERP system:

- Application extension layer, including EA-APPL 470 or 600 and higher
- Application component layer, including SAP-APPL 470 or 600 and higher, and SAP_HR 470 or 600 and higher

- NetWeaver add-on layer
- *SAP NetWeaver* Basis component layer, including *SAP NetWeaver* 620 or 700 and higher

i Note

See chapter 2.2 Integrated Application Components for details on supported versions per application component in a side-by-side scenario.

If necessary, the add-on system reads replicated data from the following lower software layers:

- Application extension layer, including EA-APPL 605
- Application component layer, including SAP_APPL 605 and SAP_HR 600 and higher

i Note

SAP_HR is only relevant for health and safety processes (see chapter 3).

- NetWeaver add-on layer, including SAP_BS_FND 702
- *SAP NetWeaver* Basis component layer, including *SAP NetWeaver* 702

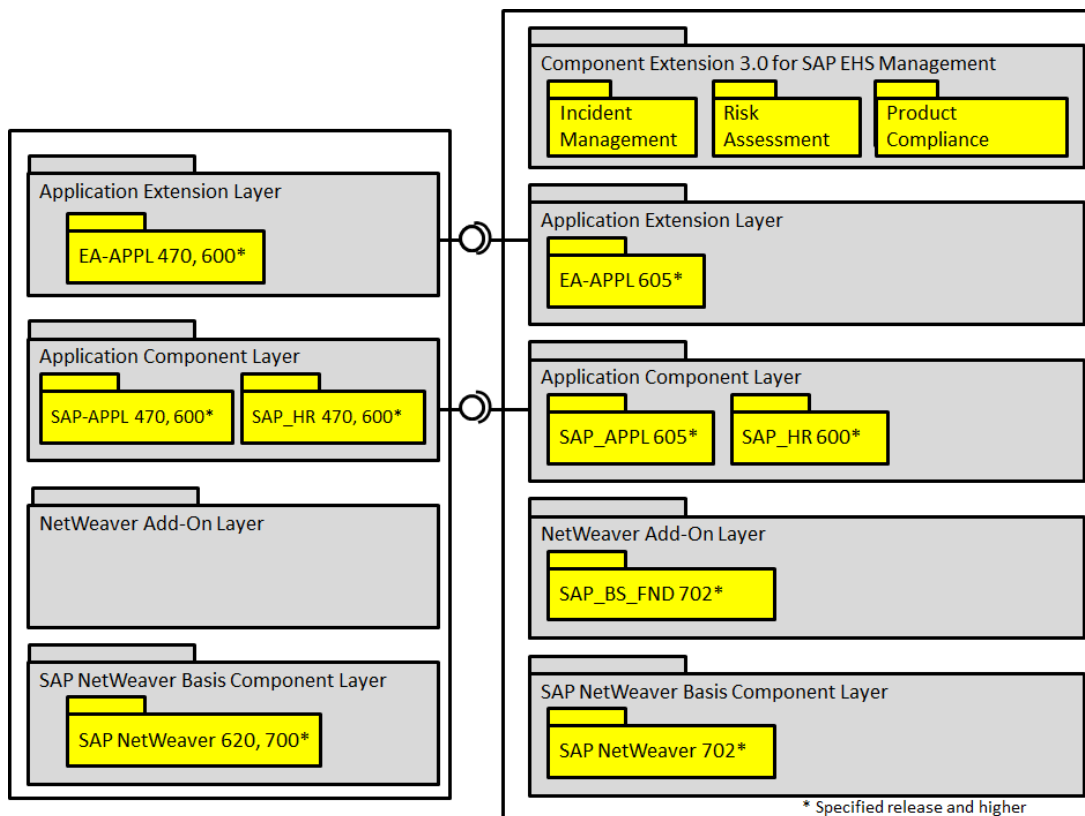


Figure 6 Side-By-Side Scenario: Data is Replicated

Figure 6 is similar to Figure 5. However, in this side-by-side scenario, the data in the application extension layer and the application component layer of the earlier system are replicated in the corresponding application extension layer and application component layer of the add-on system. The data is not read remotely. This scenario can also be used for all components of *SAP EHS Management*.

2.8 Overall Implementation Sequence

The following table describes the overall installation sequence for *SAP EHS Management*.

For the latest component version and patch level requirements, see <http://service.sap.com/sp-stacks>

For documentation listed in the following table, see 7 References.

Table 7: Implementation Sequence

Step	Action																
1.	<p>Ensure that you have performed the preparatory steps:</p> <p>You have planned your system landscape [see 2.6 Tools and Resources for Planning Your System Landscape, 2.5 System Landscape, and 2.7 Integration Scenarios with ERP]. This means, you have decided how many systems you require, how you want to use each of these systems, and which standalone engines and clients you require.</p> <p>With the help of your hardware partner, you have mapped your systems and standalone engines to correctly sized hosts.</p>																
2.	<p>You have read all relevant SAP Notes and guides. For navigation paths to this documentation, see 1.2 Related Information Planning Information and 1.3 Important SAP Notes</p> <table border="1"> <thead> <tr> <th>Content</th> <th>Location on SAP Service Marketplace</th> </tr> </thead> <tbody> <tr> <td>Application Help</td> <td>See SAP Help at http://help.sap.com/ under <i>SAP Business Suite → SAP EHS Management → Component Extension for SAP EHS Management → Release 4.0</i></td> </tr> <tr> <td>Role documentation for <i>SAP NetWeaver Business Client</i> and for the Business Package (Portal Content)</td> <td> <p>See SAP Help at http://help.sap.com/ under <i>SAP Business Suite → SAP Environment, Health, and Safety → Component Extension for SAP EHS Management → Component Extension 4.0 for SAP EHS Management</i>.</p> <p>On the page navigate to Application Help and open the SAP Library in your preferred Language.</p> <p>Application Help and open the SAP Library in your preferred language.</p> <p>In the SAP Library navigate: Foundation for EHS Management → Roles</p> </td> </tr> <tr> <td>BI Content for EHS Management</td> <td>See SAP Help at http://help.sap.com under <i>SAP NetWeaver → BI Content Choose documentation for Content 7.37 or 7.47</i></td> </tr> <tr> <td><i>SAP NetWeaver Business Client</i></td> <td>See SAP Help at http://help.sap.com/ under <i>SAP NetWeaver → SAP NetWeaver 7.0 Library (including Enhancement Package 2) → SAP NetWeaver by Key Capability → Application Platform by Key Capability → ABAP Technology → UI Technology → SAP NetWeaver Business Client</i></td> </tr> <tr> <td>Information about creating incident messages</td> <td>http://service.sap.com/incident</td> </tr> <tr> <td>SAP Notes search</td> <td>http://service.sap.com/notes</td> </tr> <tr> <td>SAP Software Distribution Center</td> <td>http://service.sap.com/swdc</td> </tr> </tbody> </table>	Content	Location on SAP Service Marketplace	Application Help	See SAP Help at http://help.sap.com/ under <i>SAP Business Suite → SAP EHS Management → Component Extension for SAP EHS Management → Release 4.0</i>	Role documentation for <i>SAP NetWeaver Business Client</i> and for the Business Package (Portal Content)	<p>See SAP Help at http://help.sap.com/ under <i>SAP Business Suite → SAP Environment, Health, and Safety → Component Extension for SAP EHS Management → Component Extension 4.0 for SAP EHS Management</i>.</p> <p>On the page navigate to Application Help and open the SAP Library in your preferred Language.</p> <p>Application Help and open the SAP Library in your preferred language.</p> <p>In the SAP Library navigate: Foundation for EHS Management → Roles</p>	BI Content for EHS Management	See SAP Help at http://help.sap.com under <i>SAP NetWeaver → BI Content Choose documentation for Content 7.37 or 7.47</i>	<i>SAP NetWeaver Business Client</i>	See SAP Help at http://help.sap.com/ under <i>SAP NetWeaver → SAP NetWeaver 7.0 Library (including Enhancement Package 2) → SAP NetWeaver by Key Capability → Application Platform by Key Capability → ABAP Technology → UI Technology → SAP NetWeaver Business Client</i>	Information about creating incident messages	http://service.sap.com/incident	SAP Notes search	http://service.sap.com/notes	SAP Software Distribution Center	http://service.sap.com/swdc
Content	Location on SAP Service Marketplace																
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SAP Notes search	http://service.sap.com/notes																
SAP Software Distribution Center	http://service.sap.com/swdc																

Step	Action
	<p>(software download and ordering of software)</p> <p>SAP Online Knowledge Products (OKPs) – role-specific Learning Maps</p> <p>Important SAP Notes</p> <p>.</p>
	<p>http://service.sap.com/rkt</p>
3.	<p>You install the add-on. For more information, see SAP Note 1808983.</p> <p>Note that installation is supported on Unicode systems only. For more information about supported languages and code pages in general, see SAP Notes 73606 and 838402.</p>
4.	<p>If you want to use optional components described in 2.2 Software Component Matrix for all business scenarios in <i>SAP EHS Management</i>, see the following installation guides:</p> <p>SAP NetWeaver (optional components)</p> <p>See <i>SAP Service Marketplace</i> at http://service.sap.com/installNW70 → <i>Installation - SAP NetWeaver Systems</i></p> <p>BW / BI Content</p> <p>See <i>SAP Service Marketplace</i> at http://service.sap.com/instguides → <i>SAP NetWeaver</i> → <i>SAP NetWeaver BI Content</i></p> <p>To run embedded analytics, you need to order the necessary SAP BusinessObjects software. See SAP Note 1486885 for details.</p>
5.	<p>If you want to use optional components described in Software Component Matrix for incident management (see chapter 3.1), see the following installation guides:</p> <p>TREX</p> <p>See <i>SAP Service Marketplace</i> at http://service.sap.com/instguides → <i>SAP NetWeaver</i> → <i>SAP NetWeaver Enterprise Search 7.0</i></p> <p>To use Enterprise Search, see also SAP Note 1164979</p>
6.	<p>If you want to use optional components described in 2.2 Software Component Matrix for IMDS compliance (see chapter 4.2), see the SAP Note 1712603.</p>

2.9 Customizing and Extensibility Options

To configure your system, we recommend using the Solution Manager tool as a starting point. For more information about using Solution Manager, see 2.6 Tools and Resources for Planning Your System Landscape. Note that the steps for configuring analytical reporting are also described in Solution Manager (see also 5.1 Integration of SAP BusinessObjects (Dashboards)).

You can extend functions and adapt this add-on to suit the needs of your organization. The following extensibility topics are described in the Application Help documentation (see SAP Help at <http://help.sap.com/> under *SAP Business Suite* → *SAP EHS Management* → *Component Extension for SAP EHS Management* → *Release 4.0*):

- Adding Fields to the User Interface
- Field Control
- Adding Print Forms and Interactive Forms
- Process Configuration

-
- Changing Workflow Templates

3 Business Scenario: Health and Safety

SAP EHS Management supports your company in fulfilling environment, health, and safety requirements on a regional and global scale. It makes day-to-day business safer by integrating EHS into the core business. This section provides an overview of the business processes in this scenario.

For more information about the following processes and their configuration, see the documentation in *SAP Solution Manager* under *Solutions/Applications* → *SAP EHS Management* → *Scenarios* → *Health and Safety* → *Business Processes*.

3.1 Managing Incidents

You can use this business process to record the following types of incidents that occur in your organization and to report these to the relevant authorities:

- Incidents
- Near misses
- Safety observations

The process also supports you with additional activities such as an incident risk assessment, investigations, and financial tracking, and allows you to initiate actions to prevent unsafe conditions and future incidents. Managing incidents not only ensures compliance with legal requirements, it also helps to increase employee health and safety and to safeguard the organization's assets by reducing the risk of further incidents in the future.

The business process runs as follows:

1. Report an incident (initial recording)
2. Review and complete an incident record
3. Perform an incident investigation
4. Generate analytical reports
5. Generate BI analytical reports (optional)

3.1.1 Technical System Landscape

For more information about the system landscape, see 2.5 System Landscape.

3.1.2 Software Units

For more information about the required software, see 2.2 Software Component Matrix.

3.1.3 Optional Software Units

- If you want to use analytical reports to analyze incident data, you can use SAP BusinessObjects and SAP BusinessObjects Dashboards with incident data from SAP Business Warehouse (BW).
For more information about BI content and embedded analytics, see Integration of SAP BusinessObjects (Dashboards).
- If you want to use an SAP-defined Web service (an Enterprise service) to record incidents for incident management, you can use the process component EHS Incident Processing.
For more information about service-oriented architecture, see 5.2 Service-Oriented Architecture (SOA).
For more information about the optional software units, see 2.2 Software Component Matrix.

3.1.4 Implementation Sequence

For more information, see 2.8 Overall Implementation Sequence.

For more information about configuration and extensibility options, see 2.9 Customizing and Extensibility Options.

3.1.5 Further Information

Content	Location
Enterprise service documentation (interfaces for initial recording of incidents are the following: Manage EHS Incident In and Action EHS Incident In)	For more information, see SAP Help at http://help.sap.com/ehs-comp for component extension 3.0 → <i>Application Help</i> → <i>SAP Library</i> (select your language), then navigate through the structure by choosing <i>SAP EHS Management</i> → <i>Enterprise Services</i> → <i>EHS Incident Processing</i> (only available in English). For more information on installing and accessing the SOA documentation, see the PDF attached to SAP Note 1224284 .

3.2 Managing EHS Risks

You can use this business process to identify, analyze, evaluate, treat, and monitor risks that exist in your organization. You can perform the following types of risk assessments:

- Health risk assessment
- Safety risk assessment
- Environmental risk assessment
- Job hazard analysis

The assessment steps for each risk assessment type are customizable, and you can use the standard analysis methods or incorporate your own analysis methods.

The business process supports measuring and analyzing exposure data for physical agents and chemicals. You can compare exposure data to occupational exposure limits (OELs) set by your organization or regulatory agencies to determine whether exposure levels are acceptable for the corresponding locations or jobs. You

can also group the people together into similar exposure groups (SEGs) and generate exposure profiles for each person.

The managing EHS risk process not only supports compliance with regulations, but also enables you to minimize identified risk within your organization by implementing risk-related controls, tasks and proposals for health surveillance. Rating the effectiveness of controls is supported by regular question based control inspections.

This helps you to effectively improve the health and safety of your employees as well as to prevent harmful effects to the environment. After you have assessed and treated risk, you can communicate information about the risk at a location (and the controls to reduce that risk) to the Plant Maintenance (PM) system for the corresponding PM technical object. This enables you to embed risk information into the PM processes, and the maintenance planner can include the risk information on the job card for the maintenance worker.

The business process provides you with various configuration options that you can use to adapt the process to your organization-specific requirements. You can also set up the application to receive requests to perform risk assessments from an integrated system, such as SAP Management of Change.

This process has the following steps:

1. Identify Risks
2. Analyze Risks
3. Evaluate Risks
4. Treat Risks
5. Monitor Risks
6. Generate BI Analytical Reports

3.2.1 Technical System Landscape

For more information about the system landscape, see 2.5 System Landscape.

3.2.2 Software Units

For more information about the required software, see 2.2 Software Component Matrix.

3.2.3 Implementation Sequence

For more information, see 2.8 Overall Implementation Sequence

For more information about configuration and extensibility options, see 2.9 Customizing and Extensibility Options.

There are also specific adaptations that you can make for risk assessment. For more information, see SAP Help at <http://help.sap.com/ehs-comp> for component extension 3.0 → *Application Help* → *SAP Library* (for your language), then navigate through the structure by choosing *SAP EHS Management* → *Risk Assessment* → *Technical Solution Information* → *Extensibility Options*:

- Adapting Terminology (for risk assessment)
- Adapting Assessment Steps (for risk assessment)

3.3 Managing EHS Locations

You can use this business process to create and edit the locations that are required in *SAP EHS Management* (EHS-MGM), and to organize these locations in a structure. In the EHS-MGM applications, you can use locations, for example, to describe where an incident occurred, or to specify a workplace for which a risk assessment is performed.

You can also use this business process to import locations from the Plant Maintenance (PM) component into the *SAP EHS Management* component.

The following business process runs in *SAP EHS Management*:

1. Import Locations from PM (optional)
2. Edit Location Structure
3. Edit Locations

3.3.1 Technical System Landscape

For more information about the system landscape, see 2.5 System Landscape.

3.3.2 Software Units

For more information about the required software, see 2.2 Software Component Matrix.

3.3.3 Implementation Sequence

For more information, see 2.8 Overall Implementation Sequence.

4 Business Scenario: Product Compliance

SAP EHS Management supports your company in fulfilling environment, health, and safety requirements on a regional and global scale. It makes day-to-day business safer and helps you achieve compliance by integrating EHS into the core business. This section provides an overview of the business processes in this scenario.

For more information about the following business processes and their configuration, see the documentation in *SAP Solution Manager* under *Solutions/Applications* → *SAP EHS Management* → *Scenarios* → *Product Compliance* → *Business Processes*.

4.1 Managing Product Compliance

The product compliance supports discrete manufacturers in complying with product related environmental regulations such as the EU directive for the restriction of hazardous substances (EU RoHS) and the REACH substances in articles (REACH SVHCs).

The business process supports you in performing the following tasks:

- Assess products compliance requirements
- Assess components compliance requirements
- Assess basic material compliance requirements
- Integrate into business processes
- Collaborate with suppliers and receive compliance
- Set up *SAP Product Stewardship Network*
- Analyze product compliance

4.1.1 Technical System Landscape

To support you in this business process, you use the following components depicted in Figure 1: Full System Landscape:

- *SAP ERP* on ABAP Server
- Portal and Adobe Document Services (ADS) on J2EE Server
- *SAP NetWeaver* Business Warehouse (BW)
- *SAP Product Stewardship Network*

If the Business Context Viewer side panel shall be used to integrate compliance information or the *SAP Product Stewardship Network*, the business function `/BCV/MAIN` must be activated.

If you want to integrate the side panel into a SAP GUI transaction, the following requirements must be fulfilled:

- NWBC 3.5 for Desktop
- SAP GUI version 7.20 patch level 9
- ERP 6.0 EHP 6 (mandatory for the side panel system)

You have activated the business functions `/BCV/MAIN` and `/BCV/MAIN_1`.

4.1.2 Software Units

For more information about the required software, see 2.2 Software Component Matrix.

4.1.3 Optional Software Units

If you want to use analytical reports to analyze compliance data, you can use SAP BusinessObjects and SAP BusinessObjects Dashboards with product compliance data from SAP Business Warehouse (BW).

For more information about BI content and embedded analytics, see Integration of SAP BusinessObjects (Dashboards).

4.1.4 Implementation Sequence

For more information, see 2.8 Overall Implementation Sequence.

For more information about configuration and extensibility options, see 2.9 Customizing and Extensibility Options

4.2 Managing IMDS Compliance

For the automotive industry, *SAP EHS Management* supports the collaboration and electronic data exchange using the International Material Data System (IMDS). IMDS is used to exchange product-related data, such as material compositions within the automotive supply chain. This is required to comply with legal requirements, such as the EU directive for end-of life vehicles.

SAP EHS Management provides an interface to the IMDS database that communicates via the exchange of material data sheet (MDS) files. This allows products to be sent to the IMDS database, and also enables the back-end system to receive information about purchased products.

IMDS compliance can act as an in-house solution for handling IMDS processes. All necessary data can be stored in the system (outside the IMDS server).

The business process supports you in performing the following tasks:

- Set up IMDS
- Assess IMDS compliance requirements
- Collaborate with suppliers (MDS)
- Collaborate with customers (MDS)
- Analyze IMDS compliance

4.2.1 Technical System Landscape

To support you in this business process, you use the following components depicted in Figure 1: Full System Landscape:

- *SAP ERP* on ABAP Server
- Portal and Adobe Document Services (ADS) on J2EE Server

-
- *SAP NetWeaver* Business Warehouse (BW)
 - International Material Data System (IMDS)

4.2.2 Software Units

For more information about the required software, see 2.2 Software Component Matrix.

4.2.3 Implementation Sequence

For more information, see 2.8 Overall Implementation Sequence.

For more information about configuration and extensibility options, see 2.9 Customizing and Extensibility Options.

5 Solution-Wide Topics

5.1 Integration of SAP BusinessObjects (Dashboards)

The integration of SAP BusinessObjects and SAP BusinessObjects Dashboards in SAP Business Suite provides you with analysis functions that are integrated in the user interface and processes: Embedded Analytics.

Predefined reports and dashboards provide a detailed, graphical, or interactive display of (transaction) data from SAP Business Suite or from [SAP NetWeaver BW](#).

Embedded Analytics contains the following integrations:

- SAP BusinessObjects Dashboards for the graphical or interactive display of data from queries in dashboards

Users can call these functions in [SAP NetWeaver Business Client](#) or [SAP NetWeaver Portal](#).

5.1.1 Technical System Landscape

This business scenario uses the required components, and the optional components for [SAP NetWeaver Business Warehouse](#) as described in 2.2 Software Component Matrix.

The following technical requirements are also required:

- SAP BusinessObjects Dashboards with Queries

To display the dashboards provided, you require Adobe Flash Player version 9. Note also the license terms for SAP BusinessObjects.

To create your own dashboards, you require SAP BusinessObjects Dashboards 2008 (SP03, FP1). Note also the corresponding license terms.

For dashboards, the following system requirements also apply:

- [SAP NetWeaver 7.0](#) including enhancement package 2 (SP04)
- [SAP NetWeaver 7.0 BI Content Add-On 5](#)
- Extension for [SAP NetWeaver 7.02 BI Content Add-On 5](#)

The connection between the ABAP back end and the BI system must be configured as a secure connection with single sign on. Otherwise, the user will be prompted to log in and the navigation context will be lost.

To run embedded analytics, you need to order the necessary SAP BusinessObjects software. See SAP Note [1486885](#) for details

5.1.2 Implementation Sequence

To implement this business scenario, see the implementation sequence described in 2.8 Overall Implementation Sequence.

5.1.3 Further Information

For more information about the BI content documentation for *SAP EHS Management*, see 1.2.2 Further Useful Links and the information sources in the following table.

Application Component	Special Installation Requirements
General Information	SAP Help Portal at http://help.sap.com under <i>SAP ERP</i> or SAP CRM Processes and Tools for Enterprise Applications (CA-EPT) → Embedded Analytics
Installation Information	<i>SAP Service Marketplace</i> at http://service.sap.com/bosap-instguides and SAP Help Portal at http://help.sap.com → <i>SAP BusinessObjects (all products)</i>
Configuration Information	<i>SAP Solution Manager</i> under <i>Solutions/Applications</i> → <i>Basic Configuration</i> → <i>Embedded Analytics</i> <i>SAP Solution Manager</i> under <i>Solutions/Applications</i> → <i>SAP EHS Management</i> → <i>Scenarios</i> → <i>Health and Safety</i> → <i>Business Processes</i> → <i>Managing Incidents</i> → <i>Generate BI Analytical Reports</i> <i>Health and Safety</i> → <i>Business Processes</i> → <i>Managing EHS Risk</i> → <i>Generate BI Analytical Reports</i> . <i>Product Compliance</i> → <i>Business Processes</i> → <i>Managing Product Compliance</i> → <i>Analyze and monitor product compliance</i> <i>Product Compliance</i> → <i>Business Processes</i> → <i>Managing IMDS Compliance</i> → <i>Analyze and monitor IMDS</i>

5.2 Service-Oriented Architecture (SOA)

The SAP delivery on SOA (service-oriented architecture) differs from the pure architectural concept of SOA in the delivery of ready-to-use enterprise services. Enterprise services are SAP-defined Web services that provide end-to-end business processes or individual business process steps that can be used to compose business scenarios while ensuring business integrity and ease of reuse. SAP designs and implements enterprise service interfaces to ensure semantic harmonization and business relevance. This section deals with the service-enablement of component extension for *SAP EHS Management* for the following services:

- EHS Incident Processing

For more information, see SAP Help at <http://help.sap.com/ehs-comp> for component extension 4.0 → *Application Help* → *SAP Library* (for your language), then navigate through the structure by choosing *SAP EHS Management* → *Enterprise Services* → *EHS Incident Processing* (only available in English).

5.2.1 Service Enablement

The service enablement of SAP Business Suite consists of one or more of the following SAP components:

- Component extension for *SAP EHS Management*

An Enterprise service for initial recording of incidents for incident management provides a technical interface to the further processing functionality available in the incident management application.

- *SAP NetWeaver* PI 7.0 or higher

SAP NetWeaver Process Integration (*SAP NetWeaver* PI) is an open integration and application platform that provides tools enabling you to set up a service-oriented architecture for business applications. You can use the platform for providing, discovering, and consuming services, integrating applications using the integration server, and managing business processes. Process integration is required in a runtime environment to consume enterprise services in a mediated scenario.

i Note

Most asynchronous services can only be consumed in a mediated scenario.

We recommend that you use the highest version of *SAP NetWeaver* Process Integration. For more information, see SAP Note [1515223](#) and SAP Note [1388258](#).

- o Enterprise Services Repository

The Enterprise Services Repository (ES Repository) is the central repository that contains the definition of all enterprise services and models. ES Repository is shipped with *SAP NetWeaver* PI 7.1 and with *SAP NetWeaver* CE 7.1 or higher. The Enterprise Services Repository is a design time environment that enables you to create and enhance enterprise service definitions and to view enterprise service models.

i Note

In a *SAP NetWeaver* 7.0 landscape, you will require the Integration Repository to create and enhance enterprise service definitions in a design time environment.

- o Services Registry

The Services Registry is shipped with *SAP NetWeaver* PI 7.1 and *SAP NetWeaver* CE 7.1 or higher and is required for the publication of enterprise service end-points (Web services) that have been configured and activated in the SAP Business Suite.

- *SAP NetWeaver* CE 7.1 or higher

The *SAP NetWeaver* Composition Environment (*SAP NetWeaver* CE) provides a robust environment for the design and implementation of composite applications.

The design time environment of *SAP NetWeaver* CE can be used for the model-driven design and development of composite applications based on enterprise services. *SAP NetWeaver* CE offers the tools and the environment necessary for running composite applications fast and efficiently in a runtime environment.

- *SAP Solution Manager* 7.0

The Solution Composer, shipped with *SAP Solution Manager* 7.0, is required to host the enterprise service online documentation.

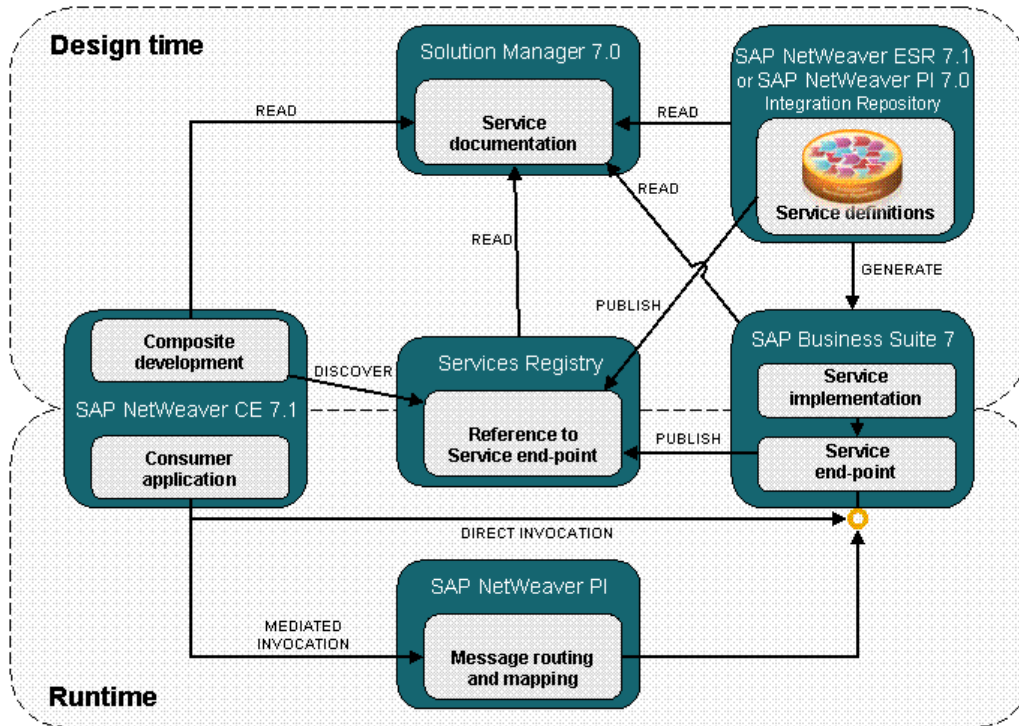


Figure 7: Overview: SAP's Applications for SOA Enablement

The following table describes the SAP applications required or recommended for different runtime and design time use cases:

Table 8: SAP Solutions required or recommended

	SAP EHS Management / SAP Business Suite	SAP NetWeaver PI 7.0 (Integration Repository)	SAP NetWeaver PI 7.1 (ES Repository)	SAP NetWeaver CE 7.1 (ES Repository)	SAP Solution Manager 7.0 (Solution Composer)	
Runtime Usage:						
Enterprise Service Provisioning	Required					Optional
Process integration and mediated communication		One option required				
Design Time Usage:						
Create and enhance enterprise service definitions	Required	One option required	Recommended			

	SAP EHS Management / SAP Business Suite	SAP NetWeaver PI 7.0 (Integration Repository)	SAP NetWeaver PI 7.1 (ES Repository)	SAP NetWeaver CE 7.1 (ES Repository)	SAP Solution Manager 7.0 (Solution Composer)	
View enterprise service models			One Option Required	Recommended		
Design and develop composite applications				Required	Recommended	Recommended
Enterprise service online documentation					Required	
Publications of enterprise service endpoints					Optional	Required

5.2.2 Installation of the Service-Oriented Architecture (SOA)

The installation of service interfaces, and therefore the service enablement of SAP Business Suite, consists of one or more of the following phases:

- Identification of software components and required business functions
You use the technical data section of the enterprise service documentation to identify the following data for each enterprise service:
 - Software component version with which the service was shipped
 - Business function(s) to activate
- Identification of technical usages
SAP Note [1324838](#) provides a mapping of business functions and software component versions to technical usages. You use this documentation to identify the required technical usages for your list of software component versions and business functions.
- Installation of the software component ECC-SE
The software component ECC-SE contains service implementations for ECC (the ERP Central Component). This component must be explicitly installed if you intend to use enterprise services for ECC functionality. In this case you must also select the technical usage "ESA ECC-SE" during the enhancement package installation.
- Selection and installation together with the other parts of the enhancement package
In the enhancement package installation process you must select all the technical usages you have identified for service enablement together with the technical usages you identified for enhanced features in SAP Business Suite. The selected technical usages will install the corresponding software components that contain the enterprise services interfaces and implementations.

- Enterprise service definitions for *SAP NetWeaver* PI 7.0 or ES Repository (*SAP NetWeaver* 7.1) (optional)
To install the content required for the enterprise service definitions you must select the technical usage “XI Content” in the enhancement package installation process. This usage type downloads the content files for both *SAP NetWeaver* 7.0 and 7.1 versions. Unpack the ZIP file and copy the TPZ files corresponding to your *SAP NetWeaver* version into the import directory of your Integration Repository (for *SAP NetWeaver* PI 7.0) or Enterprise Services Repository (for *SAP NetWeaver* ES Repository 7.1). Use the import function to import the content files into the corresponding repository (Integration Repository or Enterprise Services Repository). (Choose ► *Tools* → *Import Design Objects* ◀)
- Enterprise service models for ES Repository (*SAP NetWeaver* 7.1) (optional)
To install the content required for the enterprise service models you must select the technical usage “ESR Content” in the enhancement package installation process. This usage type downloads the content files for *SAP NetWeaver* ES Repository 7.1. Unpack the ZIP file and copy the TPZ files into the import directory of your Enterprise Services Repository. Use the import function to import the content files into the Enterprise Services Repository. (Choose ► *Tools* → *Import design objects* ◀)

Note

The enterprise service models are not available for the Integration Repository (*SAP NetWeaver* PI 7.0).

- Enterprise service online documentation for Solution Composer (optional)
To install the content required for the enterprise service online documentation you must download the content file for the corresponding Business Suite application product version from the Service Marketplace. Then you must import the content file into your Solution Composer. Refer to SAP Note 1224284 for further information.
- Services Registry (optional)
The services registry is shipped with *SAP NetWeaver* PI 7.1 and CE 7.1. You must install the services registry and then publish the enterprise services from the Business Suite application to the registry using the transaction SOAMANAGER in the backend.

For further information regarding the installation of *SAP NetWeaver* PI, CE and ES Repository, refer to the corresponding *SAP NetWeaver* Installation and Master Guides.

5.2.3 Related Documentation

For more information about the service-oriented architecture (SOA), see the following information sources:

- The SAP Enterprise Service Workplace at [Http://esworkplace.sap.com](http://esworkplace.sap.com)
- SAP Note [1224284](#): Enterprise Services, Installing and Accessing the SOA Documentation
- SAP Note [1359215](#): Technical prerequisites for using enterprise services
- SAP note [838402](#): Problems with non-Unicode system landscapes
- SAP Note [1097348](#): Configuration of idempotent services.

5.3 Adobe Document Services

Adobe document services are included in AS Java. This means that you have to install an *SAP NetWeaver* system with usage type AS Java regardless of the development language of your application (ABAP or Java).

The following Adobe software is included for SAP Interactive Forms by Adobe:

- Adobe LiveCycle Designer

A graphical tool for designing form layouts; it is integrated into *SAP NetWeaver* Developer Studio and ABAP Workbench.

- Adobe Document Services

Web services used to generate the PDF forms at runtime; in interactive scenarios, they extract the XML data from the form and send it to the system.

On the front end, you require Adobe Acrobat or Adobe Reader. For information about the required version, see SAP Note [834573](#).

For more information about the installation of ADS, see the Master Guide for SAP enhancement package 2 for *SAP NetWeaver* 7.0.

5.4 Authentication and Single Sign-On

Before implementing your system landscape, plan how to implement authentication and how to integrate different systems into a Single Sign-On landscape. Single Sign-On reduces complexity for end users, saving them valuable time, while also reducing administration effort for resetting passwords, which helps reduce TCO.

Once you have logged on to the portal where authentication takes place, all systems in the landscape – no matter whether they are based (AS ABAP, AS Java, or both), can be accessed.

For more information about authentication and single sign-on IT, see the Master Guide for SAP enhancement package 2 for *SAP NetWeaver* 7.0.

5.5 Authorizations for Workflow System

SAP EHS Management uses SAP Business Workflow to support its processes. The workflow engine follows modeled processes, executes background tasks, and distributes [foreground] tasks to the correct receivers. This functionality is executed in the context of the workflow system user WF-BATCH. For the workflow system to work properly, the correct permissions must be given to the workflow system user.

The basic authorizations for the workflow system are provided by the role SAP_BC_BMT_WFM_SERV_USER. You also need to assign the role SAP_EHSM_FND_WF_PERMISSION to provide basic authorizations required by the components of *SAP EHS Management*.

We recommend assigning the authorization profiles of the following business roles to the workflow system user (WF-BATCH) to ensure that the workflow contains the required authorizations:

- SAP_EHSM_PRC_COMPL_ENG
- SAP_EHSM_PRC_COMPONENT_ENG
- SAP_EHSM_PRC_BASMAT_SPEC

For more information about the front-end roles used in *SAP EHS Management*, see the role documentation in SAP Help at <http://help.sap.com/> under *SAP Business Suite* → *SAP EHS Management* → *Component Extension for SAP EHS Management* → *Release 4.0* → *Foundation for EHS Management* → *Roles*.

6 Upgrade Information

You can upgrade from component extension 1.0, 2.0 or 3.0 for *SAP EHS Management* to component extension 4.0 for *SAP EHS Management*. The following sections provide information about planning and executing the upgrade project.

Note

If you don't start from a component extension of *SAP EHS Management* but from another system e.g. *SAP EHS Management* as part of *SAP ERP* you find all details in the Migration guide.

6.1 New Features

For information about new or changed features of the different versions of the Component Extension for SAP EHS Management please check the respective Release Notes on the [SAP Service Marketplace](#).

[Component Extension for SAP EHS Management -Release Notes](#)

Or navigate on the page help.sap.com/ehs to SAP Environment, Health, and Safety Management → Component Extension for *SAP EHS Management* → What's New – Release Notes

6.2 Quick Guide for the Upgrade

6.2.1 Planning

✓	Activity
	Identify the changed features that are relevant to your implementation of an earlier version of the component extension. You only need to perform upgrade activities for component extension 4.0 if you used the feature in the earlier version.
	Identify the new features that you want to use in component extension 4.0. You only need to perform upgrade activities for those features that you want to use in 4.0.
	Review the upgrade activities listed below under Upgrade Process and determine the relevant activities.

6.2.2 Upgrade Process for Incident Management

6.2.2.1 Upgrade from Component Extension 1.0 for SAP EHS Management

If you upgrade Incident Management directly from component extension 1.0 for *SAP EHS Management*, perform the following activities.

✓	Activity
	<p>Run the report R_EHHSS_INC_ADJUST_LNK_TBL.</p> <p>The database table EHHSSD_INC_LINKI was enhanced with an additional field LINK_CATEGORY that specifies whether a link links to a risk assessment or an incident. The report fills the table with default values (specifying the link as a link to an incident).</p>
	<p>Add Personnel Number field to customer-specific versions of offline forms for initial near miss and safety observation.</p> <p>The forms in the standard system are delivered with the new field for the personnel number. If you copied this form in an earlier release, you may want to add this new field and its logic to the copy.</p>
	<p>Select the attached document that is the notice of violation (NOV) in existing incident records.</p> <p>In the previous version, you could indicate that the NOV was attached. Now, you can also choose which of the attached documents the NOV is. It appears linked on the tab for notice of violations in incident management.</p>
	<p>Import all Customizing settings and classes for field control in component extension 4.0.</p> <p>Using old Customizing settings or classes can lead to short dumps.</p>
	<p>Rebuild Enterprise Search index for incident if ESH is used.</p>
	<p>The authorization object EHHSS_INC1 (access to incidents) has an additional activity —C5 (Reopen) I. If you have already been granted authorizations using this authorization object to your roles/profiles, you may need to check whether it is also necessary to grant this new activity for reopening closed incidents.</p> <p>As of component extension 3.0 for <i>SAP EHS Management</i>, the following new authorization objects are available:</p> <p>EHHSS_INC2 EHHSS_INC3 EHHSS_INC5</p> <p>You should additionally configure these authorization objects. For more information, see the Security Guide at http://help.sap.com/ehs-comp#section4.</p> <p>If authorization objects EHHSS_INC3 and EHHSS_INC5 are not applicable for your use case, you can deactivate the objects by deactivating the corresponding BADl that you can access in Customizing under <i>SAP EHS Management</i> → Incident Management → Business Add-Ins → Business Add-Ins for Authorization → BADl: Extended Authorization Checks.</p>
	<p>If you plan to use the optional Enterprise service for initially recording incidents, run the report R_EHHSS_FILL_GDT_CODE after upgrading to fill the additional GDT code list key field in the Customizing tables used by the Enterprise service.</p>

Universal Worklist (UWL)

✓	Activity
	<p>Component extension 1.0 and 2.0 for <i>SAP EHS Management</i> provide a Universal Worklist with the configuration name SAP_EHS_Incident. Since there are additional components in the add-on, a new UWL configuration was created that contains the configuration of all <i>SAP EHS Management</i> components (for example, incident management, risk assessment, and product compliance).</p> <p>If you upgrade from component extension 1.0 you must remove the old UWL configuration of component extension 1.0 for <i>SAP EHS Management</i> from the Portal. Perform the following steps in the portal:</p> <p>Navigate to work center <i>System Administration</i> → <i>System Administration</i> → <i>Universal Worklist and Workflow</i> → <i>Universal Worklist Administration</i> → <i>Universal Worklist Configuration Content</i> and remove configuration SAP_EHS_Incident.</p>
	Clear POWL caches according to note 1916079
	Execute customizing activity 'Perform Automatic Workflow Customizing'
	Recognize note 1970106 about changed usage of fatality flag
	Recognize note 1970313 about deletion of class CL_EHHSS_INC_INV_DET_UI_FRM and component configuration EHHSS_INC_REC_OIF_V3_INVDETA_FRM .
	If you have created customer roles you need to check if the provided template roles contain new menu entries needed to be integrated into your customer roles. After integration you will need to regenerate the corresponding authorization profiles.

BI Content

✓	Activity
	If you are using BW for analytical reporting, you must delete the incident data from BW prior to activating the new BI content. After activating the new BI content some obsolete objects should be deleted, and the data has to be reloaded. See Upgrade of BI Content under Upgrade Process below for details.

6.2.2.2 Upgrade from Component Extension 2.0 for SAP EHS Management

If you upgrade Incident Management directly from component extension 2.0 for *SAP EHS Management*, perform the following activities.

✓	Activity
	Import all Customizing settings and classes for field control in component extension 4.0. Using old Customizing settings or classes can lead to short dumps.
	Rebuild Enterprise Search index for incident if ESH is used.
	<p>The authorization object EHHSS_INC1 (access to incidents) has an additional activity —C5 (Reopen) I. If you have already been granted authorizations using this authorization object to your roles/profiles, you may need to check whether it is also necessary to grant this new activity for reopening closed incidents.</p> <p>As of component extension 3.0 for <i>SAP EHS Management</i>, the following new authorization objects are available:</p> <ul style="list-style-type: none"> • EHHSS_INC2

✓	Activity
	<ul style="list-style-type: none"> • EHHSS_INC3 • EHHSS_INC5 <p>This means that you should additionally configure these authorization objects. For more information, see the Security Guide at <LINK>.</p> <p>If authorization objects EHHSS_INC3 and EHHSS_INC5 are not applicable for your business case, you can deactivate the objects by deactivating the corresponding BAoI.</p>
	Clear POWL caches according to note 1916079
	Execute customizing activity 'Perform Automatic Workflow Customizing'
	Recognize note 1970106 about changed usage of fatality flag
	Recognize note 1970313 about deletion of class CL_EHHSS_INC_INV_DET_UI_FRM and component configuration EHHSS_INC_REC_OIF_V3_INVDETA_FRM .
	If you have created customer roles you need to check if the provided template roles contain new menu entries needed to be integrated into your customer roles. After integration you will need to regenerate the corresponding authorization profiles.

Universal Worklist (UWL)

✓	Activity
	<p>Component extension 1.0 and 2.0 for <i>SAP EHS Management</i> provide a Universal Worklist with the configuration name SAP_EHS_Incident. Since there are additional components in the add-on, a new UWL configuration was created that contains the configuration of all <i>SAP EHS Management</i> components (for example, incident management, risk assessment, and product compliance).</p> <p>If you upgrade from component extension 2.0 you must remove the old UWL configuration of component extension 2.0 for <i>SAP EHS Management</i> from the Portal. Perform the following steps in the portal:</p> <p>Navigate to work center <i>System Administration</i> → <i>System Administration</i> → <i>Universal Worklist and Workflow</i> → <i>Universal Worklist Administration</i> → <i>Universal Worklist Configuration Content</i> and remove configuration SAP_EHS_Incident.</p>

BI Content

✓	Activity
	If you are using BW for analytical reporting, you must delete the incident data from BW prior to activating the new BI content. After activating the new BI content the data has to be reloaded. See Upgrade of BI Content under Upgrade Process below for details.

6.2.2.3 Upgrade from Component Extension 3.0 for SAP EHS Management

If you upgrade Incident Management from component extension 3.0 for *SAP EHS Management*, perform the following activities.

✓	Activity
	<p>Import all Customizing settings and classes for field control in component extension 4.0.</p> <p>Using old Customizing settings or classes can lead to short dumps.</p>

✓	Activity
	Rebuild Enterprise Search index for incident if ESH is used.
	Clear POWL caches according to note 1916079
	Execute customizing activity 'Perform Automatic Workflow Customizing'
	If you have created customer roles you need to check if the provided template roles contain new menu entries needed to be integrated into your customer roles. After integration you will need to regenerate the corresponding authorization profiles.

BI Content

✓	Activity
	Nothing to do because the BI content for incident management was not changed

6.2.3 Upgrade Process for Risk Assessment

6.2.3.1 Upgrade from Component Extension 2.0 for SAP EHS Management

✓	Activity
	If you have used agents for risk assessment in EHSM 2.0 to store rudimentary data for chemicals you may need to manually move the data into the new chemical object.
	Clear POWL caches according to note 1916079
	Execute customizing activity 'Perform Automatic Workflow Customizing'
	If you have created customer roles you need to check if the provided template roles contain new menu entries needed to be integrated into your customer roles. After integration you will need to regenerate the corresponding authorization profiles.

BI Content

✓	Activity
	<p>If you upgrade from component extension 2.0 and you already use BW for analytical reporting, you must delete the risk assessment data from BW. After activating the new BI content the data has to be reloaded. For more information, see Upgrade of BI Content under 6.2.2.</p> <p>In earlier releases only the current revisions of risks that have an analysis have been extracted. With component extension 4.0 the DataSource OEHSM_HSS_RAS_01 provides data for all risks, regardless if a risk analysis has been conducted or not. Furthermore it provides all revisions of a risk. The current (most recent) revision can be identified via the value '99991231' in the field END_DATE.</p> <p>So existing reports may have to be adjusted accordingly.</p> <p>i Note</p> <p>Note that in Customizing under SAP EHS Management → Risk Assessment → General Configuration → Specify Number Ranges for Risk Assessment, we recommend use disjunctive number ranges for agents and chemicals. In the standard system, the agent</p>

✓	Activity
	number range is from 0 to 99999, and the chemical number range starts at 100000. This enables unique identification of physical agents and chemical agents.
	<p>If you want to use chemical agents and have not configured different number range intervals for the chemical agent and physical agents number range objects as recommended in Customizing (see Note above), perform the following activities:</p> <ul style="list-style-type: none"> • Delete the risk assessment data in SAP Business Warehouse (SAP BW) from the following objects: <ul style="list-style-type: none"> ○ InfoCubes: OEHH_C20, OEHH_C22, OEHH_C23, OEHH_C24, OEHH_C25 ○ DSOs: OEHH_DS20, OEHH_DS21, OEHH_DS22, OEHH_DS23, OEHH_DS24, OEHH_DS25 ○ PSAs of Data Sources: OEHSM_HSS_RAS_01, OEHSM_HSS_RAS_02, OEHSM_HSS_RAS_03, OEHSM_HSS_RAS_04, OEHSM_HSS_RAS_05 ○ Initial selection of InfoPackages: Risks Delta Init, Limits and Amounts Delta Init, Controls Delta Init, Impacts Delta Init, and Regulations Delta Init ○ Master data of InfoObjects: OEH_AGENT, OEH_LIMREG • Activate the new BI content. • Reload the risk assessment data by executing a new initial load with process chain OEHHSS_RAS_INIT_P100.
	<p>OR</p> <p>If you want to use chemical agents and have configured different number range intervals for the chemical agent and physical agents number range objects as recommended in Customizing (see Note under 6.2.1), perform the following activities:</p> <ul style="list-style-type: none"> • Delete the data from the following objects: Master data of InfoObjects: OEH_AGENT, OEH_LIMREG • Activate the new BI content. Note: If you use query OEHH_MP20_Q0011 (Analytical Risk Report) and/or OEHH_MP22_Q0001 (Amounts vs. OELs), you have to adapt them. Replace row Agent (OEH_AGNTKEY) with characteristic Agent (OEH_AGENT) of dimension Agent. Replace filter characteristic Agent (OEH_AGNTKEY) with characteristic Agent and characteristic value variable Agent (OP_EH_AGENT_M) of dimension Agent. • Reload the risk assessment master data by executing a new full load with process chain OEHHSS_RAS_FULL_P001.


6.2.3.2 Upgrade from Component Extension 3.0 for SAP EHS Management

If you upgrade Risk Assessment from component extension 3.0 for [SAP EHS Management](#), perform the following activities.

✓	Activity
	If you have used chemical agents for risk assessment run the report R_EHFND_MIGRATE_CHM

✓	Activity
	<p>after upgrade.</p> <p>The BO and database structure of EHFND_CHEMICAL has been changed. This report will update existing chemicals from the old structure to the new structure.</p> <p>If you have extended the customizing for hazard classification or hazard statements you will need to make some further adjustments (see report documentation for more details).</p>
	<p>The customizing activity EHS Management -> Risk Assessment -> Master Data Configuration -> Agents -> Configure Report to Transfer Listed Substances and OELs is obsolete now. You can check your entries in transaction sm30: View EHFNDV_REGL_FILL.</p> <p>For the new report R_EHFND_FILL_REGL_BY_EHS_SUBST you have to use the BAdI EHS Management -> Risk Assessment -> Master Data Configuration -> Chemicals -> Data Transfer from EHS Specification Database -> BAdI: Transfer of Listed Substances and OELs to specify data sources for transferring substance data from <i>SAP EHS Management</i> as part of <i>SAP ERP</i> to component extension 4.0 for <i>SAP EHS Management</i> (<i>SAP EHS Management</i> add-on).</p>
	Clear POWL caches according to note 1916079
	Execute customizing activity 'Perform Automatic Workflow Customizing'
	If you have created customer roles you need to check if the provided template roles contain new menu entries needed to be integrated into your customer roles. After integration you will need to regenerate the corresponding authorization profiles.

BI Content

✓	Activity
	<p>If you upgrade from component extension 3.0 and you already use BW for analytical reporting and want to use the new reports for chemical inventory data, you must delete the risks and OELs/Amounts data from BW, i.e. data from</p> <ul style="list-style-type: none"> • InfoCube OEHH_C20 • DSO OEHH_DS20 • PSA of DataSource OEHSM_HSS_RAS_01 • InfoCube OEHH_C22 • DSO OEHH_DS22 • PSA of DataSource OEHSM_HSS_RAS_02 <p>After activating the new BI content the data has to be reloaded. For more information, see Upgrade of BI Content under 6.2.2.</p> <p>In earlier releases only the current revisions of risks that have an analysis have been extracted. With component extension 4.0 the DataSource OEHSM_HSS_RAS_01 provides data for all risks, regardless if a risk analysis has been conducted or not. Furthermore it provides all revisions of a risk. The current (most recent) revision can be identified via the value '99991231' in the field END_DATE.</p> <p>With component extension 4.0 the DataSource OEHSM_HSS_RAS_02 has a new field OEL_AGNT_KEY_REF. This field contains the key of the agent for which the OEL or amount exists. This is not necessarily the agent for which the risk exists.</p> <p>So existing reports may have to be adjusted accordingly.</p> <p> Note</p> <p>Note that in Customizing under <i>SAP EHS Management</i> → <i>Risk Assessment</i> → <i>General Configuration</i> → <i>Specify Number Ranges for Risk Assessment</i>, we recommend use disjunctive number ranges for agents and chemicals. In the standard system, the agent number range is from 0 to 99999, and the chemical number range starts at 100000. This</p>

✓	Activity
	enables unique identification of physical agents and chemical agents.

6.2.4 Upgrade Process for Product Compliance

6.2.4.1 Upgrade from Component Extension 3.0 for SAP EHS Management

✓	Activity
	<p>Run the report R_EHPRC_REV_PROC_STATUS_INIT after upgrade.</p> <p>A new field processing status has been introduced in the ROOT node of the business object EHPRC_COMPLIANCE_DATA: This report will update existing compliance data objects and fill the correct processing status value.</p> <p style="text-align: center;">Prerequisites and Constraints:</p> <p>Since the migration is client-dependent, you must execute the report in all clients that contain compliance data.</p> <p>Make sure that the user account used for executing the report has sufficient authorizations to modify compliance data.</p> <p>The report can run into error situations (e.g. locking errors), it is therefore recommended to run the report at a time when the system is not used by end users. The report can be re-executed any number of times and will try to migrate only these records which have not been migrated yet.</p>
	Clear POWL caches according to note 1916079
	Execute customizing activity 'Perform Automatic Workflow Customizing'
	If you have created customer roles you need to check if the provided template roles contain new menu entries needed to be integrated into your customer roles. After integration you will need to regenerate the corresponding authorization profiles.
	<p>If you upgrade to <i>EHSM 4.0</i> with Support Package 06 or higher, make sure that you have carried out all relevant steps to adapt existing weight tolerance values to the new standardized tolerance ranges, as introduced with the following two SAP Notes:</p> <p>SAP Note 2219639 <i>Add Support for Weight Tolerance Ranges</i>.</p> <p>SAP Note 2207037 <i>Support for IMDS 10.0 Requirements</i></p> <p>Carry out the following steps:</p> <p>Specify the weight tolerance values in the new Customizing activity <i>Specify Tolerance Values for Weight</i> (EHPRCV_TOLERANCE) under <i>Product Compliance</i> → <i>General Configuration</i> → <i>Compliance Object</i></p> <p>Adapt existing tolerance values in the Compliance Data Object by carrying out the report R_EHPRC_MIGRATE_TOLERANCES. Read the documentation carefully and first carry out the report in test mode.</p> <p>If you want to carry out the checks again for all existing compliance requirements based upon the</p>

new weight tolerance values, carry out the report R_EHPRC_RECHECK_TOLERANCES. This report creates the necessary ACP entries for the affected parts. The ACP entries will be processed by the standard run of the automated change processing.

6.2.4.2 Upgrade from Component Extension 4.0 for SAP EHS Management

6.2.4.2.1 Support Packages 06

The Support Package 06 for product compliance of component extension 4.0 for *SAP EHS Management* contains the adoption of IMDS 10.0 including a different handling of weight tolerances.

Table 9: Product Compliance: Upgrade from Component Extension 4.0 SP05 or lower

✓	Activity
	<p>If you upgrade to <i>EHSM 4.0</i> with Support Package 06 or higher, make sure that you have carried out all relevant steps to adapt existing weight tolerance values to the new standardized tolerance ranges, as introduced with the following two SAP Notes:</p> <p>SAP Note 2219639 Add Support for Weight Tolerance Ranges. SAP Note 2207037 Support for IMDS 10.0 Requirements</p> <p>Carry out the following steps:</p> <p>Specify the weight tolerance values in the new Customizing activity <i>Specify Tolerance Values for Weight</i> (EHPRCV_TOLERANCE) under <i>Product Compliance → General Configuration → Compliance Object</i></p> <p>Adapt existing tolerance values in the Compliance Data Object by carrying out the report R_EHPRC_MIGRATE_TOLERANCES. Read the documentation carefully and first carry out the report in test mode.</p> <p>If you want to carry out the checks again for all existing compliance requirements based upon the new weight tolerance values, carry out the report R_EHPRC_RECHECK_TOLERANCES. This report creates the necessary ACP entries for the affected parts. The ACP entries will be processed by the standard run of the automated change processing..</p>

7 References

The following table lists all documents and sources mentioned in this Master Guide:

Documentation	Where to Find
Guides and general information for <i>SAP EHS Management</i> available on <i>SAP Service Marketplace</i>	See 1.2 Related Information Planning Information
Documentation for <i>SAP EHS Management</i> that is available on SAP Help	See 1.2.2 Further Useful Links
SAP Notes that are important to the implementation of <i>SAP EHS Management</i>	See 1.3 Important SAP Notes
Generate Forms for Offline Recording	See the Customizing under <i>SAP EHS Management</i> → <i>Incident Management</i> → <i>Print Forms and Interactive Forms</i> → <i>Generate Forms for Offline Recording</i> .
Specify Destination for Integration	See Customizing under <i>SAP EHS Management</i> → <i>Foundation for EHS Management</i> → <i>Integration</i> → <i>Specify Destination for Integration</i> .
Configure Integration of Map	See Customizing under <i>SAP EHS Management</i> → <i>Foundation for EHS Management</i> → <i>Locations</i> → <i>Configure Integration of Map</i> .
Installation information for <i>SAP NetWeaver</i> Business Warehouse / BI Content	See <i>SAP Service Marketplace</i> at http://service.sap.com/instguides → <i>SAP NetWeaver</i> → <i>SAP NetWeaver BI Content</i>
Installation information for Enterprise Search services (TREX)	See <i>SAP Service Marketplace</i> at http://service.sap.com/instguides → <i>SAP NetWeaver</i> → <i>SAP NetWeaver Enterprise Search 7.0</i>
Enterprise service for initial recording of incidents	http://esworkplace.sap.com → (processing component) <i>EHS Incident Processing</i>
Installation information for <i>SAP NetWeaver</i> (optional components)	See <i>SAP Service Marketplace</i> at http://service.sap.com/installNW70 → <i>Installation - SAP NetWeaver Systems</i> .
SAP connect information	See SAP Help Portal (http://help.sap.com/) for <i>SAP NetWeaver</i> under <i>SAP NetWeaver 7.0 (2004s)</i> → <i>SAP NetWeaver Library</i> → <i>Administrator's Guide</i> → <i>Technical Operations Manual for SAP NetWeaver</i> → <i>Administration of SAP NetWeaver Systems</i> → <i>AS ABAP (Application Server for ABAP)</i> → <i>Administration</i> → <i>SAP connect Communication Interface</i> . Note that in SAP connect Communication Interface under More Information, you can find general information about SAP connect.
Application help (SAP Library) documentation downloads	http://service.sap.com/support under <i>Software Downloads</i> → <i>Installations and Upgrades</i> → <i>A-Z Index</i> → <i>Installations and Upgrades</i>

Documentation	Where to Find
International Material Data System (IMDS)	http://www.mdssystem.com

 Note

The following SAP Library documentation is relevant for *SAP EHS Management*:

- EHP6 FOR *SAP ERP* 6.0
- SAP EHP2 FOR *SAP NETWEAVER* 7.0
- Component extension 4.0 for *SAP EHS Management*

You can access and download the documentation and support package stack documentation on the SAP Support Portal at <http://support.sap.com/swdc> → *Installations and Upgrades*.

If you want to install Java hubs on *SAP NetWeaver* 7.3, see SAP Note [1468349](#) and Media List for *SAP NetWeaver* 7.3. For installation documentation and Media List for *SAP NetWeaver* 7.3, see *SAP Service Marketplace* at <http://service.sap.com/instguidesnw73>.



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