

# **SAP® Extended Warehouse Management 9.1**

**Using SAP SCM 7.0 including SAP enhancement package 3, SAP ERP 6.0 including SAP enhancement package 7, or SAP NetWeaver® 7.4**



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# Documentation on the SAP Service Marketplace

You can find this document at the following address: [service.sap.com/instguides](https://service.sap.com/instguides)

# Typographic Conventions


Table 1

Example	Description
< >	Angle brackets indicate that you replace these words or characters with appropriate entries to make entries in the system, for example, "Enter your <User Name>".
▶ > ▶	Arrows separating the parts of a navigation path, for example, menu options
<b>Example</b>	Emphasized words or expressions
<b>Example</b>	Words or characters that you enter in the system exactly as they appear in the documentation
Example	Textual cross-references to an internet address, for example, <a href="http://www.sap.com">www.sap.com</a>
/example	Quicklinks added to the internet address of a homepage to enable quick access to specific content on the Web
123456	Hyperlink to an SAP Note, for example, SAP Note <a href="#">123456</a>
Example	<ul style="list-style-type: none"> <li>Words or characters quoted from the screen. These include field labels, screen titles, pushbutton labels, menu names, and menu options.</li> <li>Cross-references to other documentation or published works</li> </ul>
Example	<ul style="list-style-type: none"> <li>Output on the screen following a user action, for example, messages</li> <li>Source code or syntax quoted directly from a program</li> <li>File and directory names and their paths, names of variables and parameters, and names of installation, upgrade, and database tools</li> </ul>
EXAMPLE	Technical names of system objects. These include report names, program names, transaction codes, database table names, and key concepts of a programming language when they are surrounded by body text, for example, <code>SELECT</code> and <code>INCLUDE</code>
EXAMPLE	Keys on the keyboard

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# Document History

The Upgrade Master Guide is regularly updated on SAP Service Marketplace at [service.sap.com/instguides](http://service.sap.com/instguides).

 **Caution**

Before you start the implementation, make sure you have the latest version of this document. You can find the latest version on SAP Service Marketplace at [service.sap.com/instguides](http://service.sap.com/instguides).

The following table provides an overview on the most important document changes:

Table 2

Version	Date	Description
1.0	2013-11-08	Initial version
1.1	2014-06-24	Microsoft® Silverlight® information updated
1.2	2015-04-30	Information on availability and activation of Business Functions corrected.

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# 1 Getting Started

## 1.1 About this Document

This Upgrade Master Guide provides a central starting point for the technical upgrade of SAP EWM. You can find cross-scenario upgrade information as well as scenario-specific information in this guide.

### **i** Note

The central starting point for the technical implementation of your SAP application is the Master Guide, which you can find on SAP Service Marketplace at [service.sap.com/instguides](https://service.sap.com/instguides).

This Upgrade Master Guide provides an overview of the upgrade paths, as well as the upgrade of the involved software units (components) and scenarios from a technical perspective. The Upgrade Master Guide is a planning tool that helps you to decide which software units you have to upgrade, while taking into account the dependencies between the software units. It refers you to the required detailed documentation, and in particular the following:

- Upgrade guides for single software units
- SAP Notes
- Configuration documentation
- SAP Library documentation

For a general overview of available SAP documentation, see *The Main SAP Documentation Types*.

The Upgrade Master Guide consists of the following main sections:

- Getting Started, which contains valuable information about using this document and related information (documentation and SAP Notes) crucial to the installation and upgrade.
- [SAP EWM Upgrade Overview \[page 13\]](#) which provides an overview of possible system landscapes and overall upgrade information.
- [Business Scenarios of SAP Extended Warehouse Management \[page 32\]](#)

This section contains descriptions of some predesigned business scenarios that can help you to implement SAP EWM.

- [Business Processes of SAP EWM \[page 36\]](#)

This section contains the following information for each business process:

- A short overview of the business process
  - Minimal system landscape
  - A software component matrix for each business process, which provides information about the software units (components) that the business process uses and whether the corresponding software unit (component) is mandatory or optional
  - References to further information about the business process
- *Solution-Wide Topics* [external document] which refers you to additional information that is relevant for your solution.

## **i** Note

There is no particular upgrade sequence for EWM business scenarios or business processes. See [Overall Upgrade Sequence \[page 29\]](#).

You can find the most current information about the technical upgrade of SAP EWM and the latest upgrade, installation, and configuration guides on SAP Service Marketplace at [service.sap.com/instguides](http://service.sap.com/instguides).

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

## **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 system landscape to determine whether these scenarios can be used in production 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 Upgrade Master Guide primarily discusses the overall technical upgrade of SAP EWM 9.0, rather than its subordinate components. This means that additional software dependencies may exist without being explicitly mentioned in this document. You can find more information about component-specific software dependencies in the corresponding upgrade guides.

## **1.2 Related Information**

### **Planning Information**

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

Table 3

Content	Location on SAP Service Marketplace
Latest versions of installation and upgrade guides	<a href="http://service.sap.com/instguides">service.sap.com/instguides</a>
SAP Upgrade Info Center – general information about upgrade topics and solution-specific upgrade information	<a href="http://service.sap.com/upgrade">service.sap.com/upgrade</a>
General information about SAP EWM	<a href="http://service.sap.com/scm">service.sap.com/scm</a>
SAP Business Maps – information about solutions and business scenarios	<a href="http://service.sap.com/businessmaps">service.sap.com/businessmaps</a>
Sizing and calculation of hardware requirements – such as CPU, disk and memory resource	<a href="http://service.sap.com/sizing">service.sap.com/sizing</a>
Released platforms and technology-related topics such as maintenance strategies and language support	▶ <a href="http://service.sap.com/platforms">service.sap.com/platforms</a> ▶ To access the Platform Availability Matrix directly, enter ▶ <a href="http://service.sap.com/pam">service.sap.com/pam</a> ▶
Network security	<a href="http://service.sap.com/securityguide">service.sap.com/securityguide</a>
High Availability	<a href="http://service.sap.com/ha">service.sap.com/ha</a>

Content	Location on SAP Service Marketplace
Performance	<a href="http://service.sap.com/performance">service.sap.com/performance</a>
Information about Support Package Stacks, latest software versions and patch level requirements	<a href="http://service.sap.com/sp-stacks">service.sap.com/sp-stacks</a>
Information about Unicode technology	<a href="http://service.sap.com/unicode@sap">service.sap.com/unicode@sap</a>

### Further Useful Links

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

Table 4

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

## 1.3 Important SAP Notes

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

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

Table 5: Relevant SAP Notes for SAP EWM

SAP Note Number	Title	Description
<a href="#">1892669</a>	Installing or upgrading SCMEWM 910	You want to perform an add-on installation or upgrade to SAP EWM 9.1
<a href="#">1894045</a>	Installation of SAP EWM LDP	Options for installing Labor Demand Planning
<a href="#">1885000</a>	Implementation recommendations for SAP EWM 9.1	For implementing SAP EWM 9.1
<a href="#">1678780</a>	BI_CONT / BI_CONT_XT 7x7: Information about installation and upgrade	Information about Business Intelligence Content 7x7 in relation to add-on installation and delta upgrade, and basis upgrade to 7X.  This note is only relevant if you use BI content for SAP EWM.

SAP Note Number	Title	Description
<a href="#">1606493</a>	SAP EWM Deployment Options – Best Practices	Several deployment options exist for SAP EWM: it can be deployed as Add-On to SAP NetWeaver, to SAP ERP or to SAP SCM.
<a href="#">1529649</a>	Factory Calendar expires 2010	Factory calendars are delivered from SAP with a validity until 2010 in the standard. Before expiration no error message is displayed. This could lead to follow-up errors at the turn of the year, in different applications, using the calendar.
<a href="#">1515223</a>	SAP NetWeaver Process Integration: Release Recommendation	Information about which PI release to use.  This note is only relevant if you use Enterprise Services for SAP EWM.
<a href="#">1423066</a>	Optimization of the performance in EWM	You are using SAP EWM and you notice that system performance is inadequate for your requirements with regard to the dialog response times or the consumption of system resources.
<a href="#">1224284</a>	Enterprise Services Bundles – Required Technical Usages and Business Functions	Lists business-related grouping of Enterprise Services.  This note is only relevant if you use Enterprise Services for SAP EWM.
<a href="#">1048230</a>	De-activate the livecache for EWM	Using SAP EWM in a SCM system the liveCache is not relevant and may not be activated if you do not use it for other SCM applications.  This note is only relevant if you install SAP EWM as an Add-On to SAP SCM.
<a href="#">1039436</a>	Low performance, dispatcher AP 7.0 LIME in mass test	Activation of index /LIME/ COLL_W2IM~D is required for EWM
<a href="#">900000</a>	Netweaver Business Client - FAQ	This note is only relevant if you use NWBC for SAP EWM transactions.

## 2 SAP EWM Upgrade Overview

### 2.1 Upgrade at a Glance

#### EWM as an Add-On Application

While SAP EWM before release 9.0 was delivered either as an Add-On to SAP ERP or as part of the SCM Server, SAP EWM 9.1 is delivered exclusively as Add-On application. The following component versions of SAP EWM as Add-On application are available:

Table 6

Component Version of SAP EWM 9.1	Required Product Version for Add-On Installation
EWM Standalone	SAP NetWeaver 7.4 (Application Server ABAP)
EWM on SAP SCM	SAP enhancement package 3 for SAP SCM 7.0 (SCM Server)
EWM on SAP ERP	SAP enhancement package 7 for SAP ERP 6.0 (SAP ECC Server)
EWM UI Features	SAP NetWeaver 7.4

An upgrade to SAP EWM 9.1 from previous releases is supported. This applies also for previous releases with EWM as part of SCM Server.

#### **i** Note

SAP Dock Appointment Scheduling (DAS) is included in all content component versions of SAP EWM and must not be installed separately. The EWM UI Features component is used for Labor Demand Planning. It can be installed on the same instance as SAP EWM or on a separate server (for example, in the demilitarized zone).

#### Business Functions

In SAP EWM 9.1, the following business functions are available:

Table 7

Name	Description
SCM_EWM_FND	EWM, Essential Foundation Functions
SCM_EWM_MEAN	EWM, Additional GTINs (EANs/UPCs) for Product

The business function, SCM\_EWM\_FND, is mandatory for all EWM business processes described in this guide. You must no longer activate the following business functions because they are now available in SAP EWM 9.1.

Table 8

Name	Description
SCM_EWM_BP_IDMAP	<i>EWM, Business Partner ID Mapping</i>
SCM_EWM_USAB_IMPL_1	<i>EWM, Usability and Implementation 1</i>

## 2.2 Upgrade Paths

A direct upgrade path to SAP EWM 9.1 is supported for the following source releases:

- SAP EWM 2007
- SAP EWM 7.0
- SAP EWM 7.0 including Enhancement Package 1
- SAP EWM 7.0 including Enhancement Package 2
- SAP EWM 9.0

## 2.3 Upgrade of Involved Software Components

### Application Components of SAP EWM

The following software components are affected by the upgrade of SAP EWM:

Table 9: EWM Standalone

Name	Release after Upgrade	Description
EA-IPPE	400	SAP Integrated Product and Process Engineering 400
SCMEWM	910	Extended Warehouse Management 9.10
MDG_FND	747	MDG Foundation 747
QIE	200	QIE 200 (Quality Inspection Engine)
SAP_AP	700	SAP Application Platform 7.00
SCM_BASIS	713	SAP SCM BASIS 7.13
WEBCUIF	747	SAP Web UIF 747
SAP_BS_FND	747	SAP Business Suite Foundation 747
SCMBPLUS	713	SCM Basis PLUS 7.13

Table 10: EWM on SAP SCM

Name	Release after Upgrade	Description
SCMEWM	910	Extended Warehouse Management 9.10

Table 11: EWM on SAP ERP

Name	Release after Upgrade	Description
SCMEWM	910	Extended Warehouse Management 9.10
QIE	200	QIE 200 (Quality Inspection Engine)
SCM_BASIS	713	SAP SCM BASIS 7.13

Table 12: EWM UI Features

Name	Release after Upgrade	Description
SCMEWMUI	910	SAP EXTENDED WAREHOUSE Management User Interface 9.1

### Additional Application Components

Some EWM scenarios and processes available with SAP EWM 9.1 require an upgrade or an update of the following application components, which are not part of SAP EWM:

Table 13

Required Version of Application Component for Specific EWM Scenarios or Processes	Upgrade Information
SAP ERP 6.0 including Enhancement Package 7	For more information, see SAP Service Marketplace at <a href="http://service.sap.com/instguides">service.sap.com/instguides</a> under ► <i>SAP Business Suite Applications</i> ► <i>SAP ERP</i> ► <i>SAP ERP 6.0</i> ► <i>SAP enhancement packages for SAP ERP 6.0</i> ► <i>SAP enhancement package 7 for SAP ERP 6.0</i> ►.
SAP Transportation Management 9.1	For more information, see the Upgrade Master Guide for SAP TM on SAP Service Marketplace at <a href="http://service.sap.com/instguides">service.sap.com/instguides</a> under ► <i>SAP Business Suite Applications</i> ► <i>SAP TM</i> ► <i>Using SAP TM 9.1</i> ►.

For more information about the affected scenarios and processes, see the following section, [Software Component Matrix \[page 15\]](#).

## 2.4 Software Component Matrix

This section provides an overview of which business scenario, business process, and function – both in and outside of SAP Solution Manager – uses which software unit.

For information about the latest component version and patch level requirements, see SAP Support Package on SAP Service Marketplace at [service.sap.com/sp-stacks](http://service.sap.com/sp-stacks).

### **i** Note

There are software requirements for each of the following components that are not explicitly mentioned in this document. These requirements are documented in the associated installation guides.

### **i** Note

This Master Guide provides just one method of implementing each business scenario. For alternative methods, see the Scenario & Process Component List on SAP Service Marketplace at [service.sap.com/scl](http://service.sap.com/scl). The Scenario & Process Component List helps you to find realization alternatives for SAP solutions, business scenarios, and processes. It shows you which application components are needed to realize a business scenario or process.

Table 14: SAP EWM Business Scenarios Delivered with SAP Solution Manager

Business Scenarios	Software Components			Additional Information
	SAP EWM	SAP ERP	Other Software Units	
<a href="#">Dock Appointment Scheduling [page 32]</a>	X	-	-	<p>Scenario includes business process for DAS standalone.</p> <p>Web Dynpro applications require the desktop version of NetWeaver Business Client (NWBC) 4.0 or higher.</p> <p>Use of DAS graphical view requires Microsoft® Silverlight® 5 or higher.</p>
<a href="#">Integration of Outbound Warehousing and Transportation [page 33]</a>	X	X	SAP TM	<p>Scenario includes business processes using ERP and direct methods for integration.</p> <p>Minimal release/patch level for integration using SAP ERP: EHP4 for SAP ERP 6.0 (SP4); EHP4 for ECC-SE 6.0 (SP9) (Add-On to SAP ERP); SAP TM 9.0</p> <p>Uses IDOCs for communication of LE-TRA shipments between ERP and EWM.</p> <p>Minimal release/patch level for direct integration: EHP5 for SAP ERP; EHP5 for 6.0 ECC-SE 6.0 (SP11) (Add-On to SAP ERP); SAP TM 9.1; XI CONTENT EWM 9.10; XI CONTENT SAPTM 1.2</p> <p>Uses Enterprise Services for</p>

Business Scenarios	Software Components			Additional Information
	SAP EWM	SAP ERP	Other Software Units	
				<p>communication between TM and EWM. Configuration documentation of this SAP Solution Manager business scenario describes business functions in ERP, TM and EWM for both methods of integration. This SAP Solution Manager business scenario covering both methods of integration is based on the business scenario <a href="#">Warehouse Management with Preconfigured Processes [page 34]</a>.</p>
<a href="#">Warehouse Management with Preconfigured Processes [page 34]</a>	X	X	-	<p>Scenario includes standard warehouse management business processes.</p> <p>Minimal release/patch level: EHP3 for SAP ERP 6.0</p> <p>ERP Business Function: LOG_LE_INTEGRATION</p>

Table 15: SAP EWM Business Processes Delivered with SAP Solution Manager

Business Processes	Software Components			Additional Information
	SAP EWM	SAP ERP	Other Software Units	
<a href="#">Inbound Processing and Receipt Confirmation with Warehouse Management in SCM [page 63]</a>	X	X	-	<p>Minimal release/patch level: SAP ERP 6.0</p> <p>We recommend that you use instead processes from the business scenario <a href="#">Warehouse</a></p>

Business Processes	Software Components			Additional Information
	SAP EWM	SAP ERP	Other Software Units	
				Management with Preconfigured Processes [page 34].
Merchandise Distribution [page 58]	X	X	-	Minimal release/patch level: EHP4 for SAP ERP 6.0 ERP Business Functions: LOG_LE_INTEGRATION;ISR_RET_CD/FT_EWM
Opportunistic Cross-Docking [page 59]	X	-	-	-
Outbound Process with Cartonization Planning [page 56]	X	X	-	Minimal release/patch level: EHP3 for SAP ERP 6.0 This SAP Solution Manager business process is based on the business scenario Warehouse Management with Preconfigured Processes [page 34].
Planning Labor Demand for Outbound [page 55]	X	X	-	Requires installation of EWM UI Features component. Usage of SAP HANA For use of Gateway (contained in NetWeaver 7.40), see SAP Note 1894045.
Processing Inbound with SAP Dock Appointment Scheduling [page 57]	X	X	-	This SAP Solution Manager business process is based on the business scenario Warehouse Management with Preconfigured Processes [page 34].

Business Processes	Software Components			Additional Information
	SAP EWM	SAP ERP	Other Software Units	
				<p>Process for DAS integrated in EWM</p> <p>Web Dynpro applications require the desktop version of NetWeaver Business Client (NWBC) 4.0 or higher.</p> <p>Use of DAS graphical view requires Microsoft® Silverlight® 5 or higher.</p>
Processing Inbound with Stock-Specific UoM (Manual GR) [page 64]	X	X	-	<p>Minimal release/patch level: EHP6 for SAP ERP 6.0</p> <p>Implement SAP Note <a href="#">1612190</a>.</p> <p>This SAP Solution Manager business scenario is based on the business scenario <a href="#">Warehouse Management with Preconfigured Processes</a> [page 34].</p>
Processing Inbound with Stock-Specific UoM (Manual Warehouse Task) [page 65]	X	X	-	See <a href="#">Processing Inbound with Stock-Specific UoM (Manual GR)</a> [page 64]
Processing Outbound with Stock-Specific UoM [page 66]	X	X	-	See <a href="#">Processing Inbound with Stock-Specific UoM (Manual GR)</a> [page 64]
Warehouse Inbound Processing with Transportation Integration [page 60]	X	X	-	<p>Minimal release/patch level: SAP R/3 4.6C</p> <p>Uses the LE-TRA component for shipments in ERP; however, no functionality in SAP TM.</p>

Business Processes	Software Components			Additional Information
	SAP EWM	SAP ERP	Other Software Units	
Warehouse Outbound Processing with Transportation Planning in ERP [page 61]	X	X	-	See the generic EWM business process <a href="#">Warehouse Inbound Processing with Transportation Integration [page 60]</a> .
Warehouse Outbound Processing with Transportation Planning in EWM [page 62]	X	X	-	See the generic EWM business process <a href="#">Warehouse Inbound Processing with Transportation Integration [page 60]</a> .
Unpacked Inbound Delivery from Vendor (with Manual GR and Automatic WT) [page 67]	X	X	-	Minimal release/patch level: SAP ERP 6.0 We recommend that you use instead processes from the business scenario <a href="#">Warehouse Management with Preconfigured Processes [page 34]</a> .
Unpacked Inbound Delivery from Vendor (with Manual WT and Automatic GR) [page 68]	X	X	-	See generic EWM business process <a href="#">Unpacked Inbound Delivery from Vendor (with Manual GR and Automatic WT) [page 67]</a> .

Table 16: Other SAP EWM Functions and Processes

Business Function / Process	Software Components			Additional Information
	SAP EWM	SAP ERP	Other Software Units	
Additional GTINs (EANs/UPCs) for Product	X	X	-	Minimal release/patch level: EHP6 for SAP ERP 6.0 ERP Business Functions: LOG_LE_INTEGRATION; LOG_SCM_MEAN_INT

Business Function / Process	Software Components			Additional Information
	SAP EWM	SAP ERP	Other Software Units	
				EWM Business Functions: SCM_EWM_MEAN
Advanced Returns Management	X	X	SAP CRM	Minimal release/patch level: EHP6 for SAP ERP 6.0 ERP Business Functions: LOG_LE_INTEGRATION; OPS_ADVRETURNS_2
Batch Management enhancements	X	X	-	Minimal release/patch level: EHP3 for SAP ERP 6.0 ERP Business Function: LOG_LE_INTEGRATION Replication of batch selection criteria; supports documentary batches.
Catch-Weight Management with IS-CWM in ERP	X	X	-	Minimal release/patch level: EHP5 for SAP ERP 6.0 ERP Business Functions: LOG_LE_INTEGRATION; /CWM/CM_2 IS-CWM active in SAP ERP Note that IS-CWM is not available for SAP Retail customers.
Catch-Weight Management Without IS-CWM in ERP	X	X	-	Minimal release/patch level: EHP3 for SAP ERP 6.0 ERP Business Functions: LOG_LE_INTEGRATION

Business Function / Process	Software Components			Additional Information
	SAP EWM	SAP ERP	Other Software Units	
				IS-CWM not active in SAP ERP
Enhanced Serial Number Handling	X	X	-	Minimal release/patch level: EHP3 for SAP ERP 6.0 ERP Business Function: LOG_LE_INTEGRATION
Enhancements in Outbound Process	X	X	-	Minimal release/patch level: EHP3 for SAP ERP 6.0 ERP Business Function: LOG_LE_INTEGRATION Includes direct outbound deliveries, goods issue for direct sales and account assignment, invoice before goods issue, delivery change request following an (SD) sales order quantity decrease, goods issue time maintenance.
ERP QM Integration	X	X	-	Minimal release/patch level: EHP6 for SAP ERP 6.0 (SP09) or EHP7 for SAP ERP 6.0 (SP02), QIE 2.0 (SP07) (as part of EWM installation) Includes extended functionality as of EWM 9.0. In the case of upgrade to EWM 9.1, see SAP Note <a href="#">1906105</a> (activation of new

Business Function / Process	Software Components			Additional Information
	SAP EWM	SAP ERP	Other Software Units	
				EWM QM functions after upgrade).
Goods Receipt Enhancements	X	X	-	Minimal release/patch level: EHP3 SAP ERP 6.0; ERP Business Function: LOG_LE_INTEGRATION Includes expected goods receipts (GR), GR from production, GR without reference, tolerance checks.
Kit-to-Order	X	X	-	Minimal release/patch level: EHP3 for SAP ERP 6.0 ERP Business Function: LOG_LE_INTEGRATION
Kit to Stock	X	X	-	Minimal release/patch level: EHP3 for SAP ERP 6.0 ERP Business Function: LOG_LE_INTEGRATION
Master Data Integration to SAP ERP via core interface (CIF)	X	X	-	Minimal release/patch level: SAP R/3 4.6C
Merchandise Cross-Docking	X	X	-	Minimal release/patch level: EHP4 for SAP ERP 6.0 ERP Business Functions: LOG_LE_INTEGRATION; ISR_RET_CD/FT_EWM Includes planned cross-docking with and

Business Function / Process	Software Components			Additional Information
	SAP EWM	SAP ERP	Other Software Units	
				without pre-packing, article-based flow-through, recipient-driven flow-through.
Production Supply	X	X	-	Minimal release/patch level: EHP4 for SAP ERP 6.0 ERP Business Functions: LOG_LE_INTEGRATION; LOG_PP_EWM_MAN Includes conventional manufacturing (production and process orders), kanban, repetitive manufacturing.
Returns in the Distribution Network	X	X	SAP CRM	Minimal release/patch level: EHP5 for SAP ERP 6.0 ERP Business Functions: LOG_LE_INTEGRATION; SPE_CI_1
Returns Processing	X	X	-	Minimal release/patch level: EHP3 for SAP ERP 6.0 ERP Business Function: LOG_LE_INTEGRATION
Routing of RFID data between ERP and EWM	X	X	-	Minimal release/patch level: EHP3 for SAP ERP 6.0 ERP Business Function: LOG_LE_INTEGRATION
Shipping Cockpit	X	-	-	Business Functions in SAP EWM (for side

Business Function / Process	Software Components			Additional Information
	SAP EWM	SAP ERP	Other Software Units	
				panel); /BCV/ MAIN; /BCV/ MAIN_1; /BCV/ NWBC_SIDE_PANEL Requires desktop version of NetWeaver Business Client (NWBC) 4.0 or higher. Microsoft® Silverlight® 5 or higher needed to use the graphical view for Staging Area Planning in the Shipping Cockpit
Stock Transfer Enhancements	X	X	-	Minimal release/patch level: EHP3 for SAP ERP 6.0 ERP Business Function: LOG_LE_INTEGRATI ON
Transactional Data Integration to SAP ERP via IDOCs	X	X	-	Minimal release/patch level: SAP R/3 4.6C Replaced by transactional data integration to SAP ERP via qRFC as of SAP ERP 6.0.
Transactional Data Integration to SAP ERP via qRFC	X	X	-	Minimal release/patch level: SAP ERP 6.0

### **i** Note

This master guide provides a brief description of business scenarios and processes delivered in SAP Solution Manager with SAP EWM 9.1. For more information about SAP EWM 9.1 business processes and functions not contained in SAP Solution Manager, see SAP Library for SAP Extended Warehouse Management on SAP Help Portal at [help.sap.com](http://help.sap.com).

Key: X = mandatory; – = not part of the business process

## 2.5 System Landscape

The following diagrams provide an overview of possible system landscapes for SAP EWM 9.1.

The diagram below shows three possible SAP EWM 9.1 installations based on a minimal landscape. You can use any one of these same system landscapes for SAP Dock Appointment Scheduling since it is already included in SAP EWM.



### Caution

We strongly recommend that you use a minimal system landscape for test and demo purposes only. For performance, scalability, high availability, and security reasons, do **not** use a minimal system landscape as your production landscape.

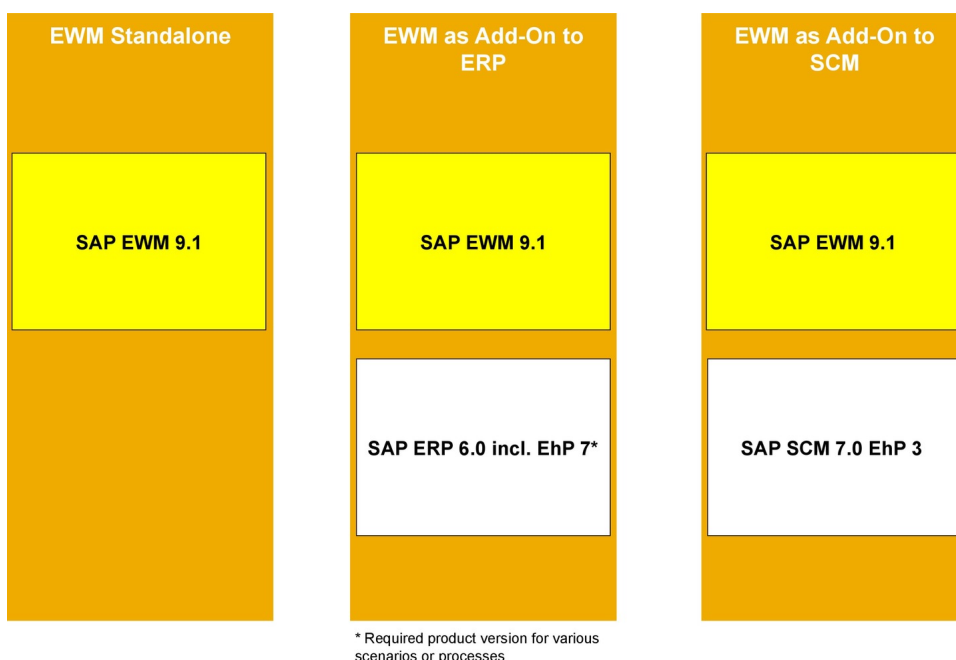
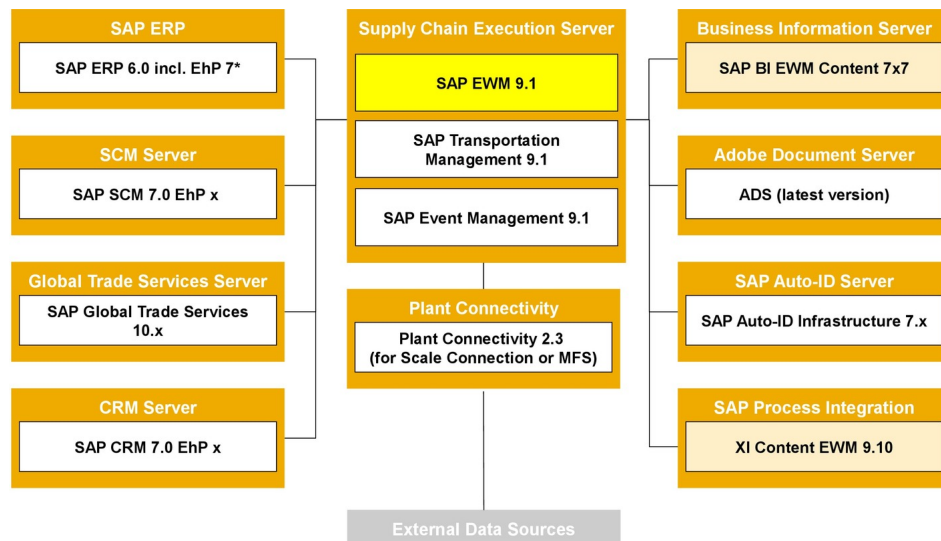


Figure 1: Overview: EWM as Standalone and Add-On to ERP and SCM – Minimal System Landscape

This next diagram provides an overview of a possible system landscape for SAP EWM, installed together with SAP Transportation Management and SAP Event Management as an application based on SAP NetWeaver.

For more information about the additional components installed on separate servers, see the section on *Software Components of SAP Extended Warehouse Management* [external document]



\* Required product version for various scenarios or processes

■ = Content for EWM

Figure 2: Overview: Possible System Landscape

This last following diagram shows the minimal system landscape for intranet usage of Labor Demand Planning. In this case, SAP NetWeaver Gateway is co-deployed on the SAP EWM instance, which acts as the Web server.

Alternatively, it is also possible to have separate instances for the SAP NetWeaver Gateway, Web dispatcher, and SAP EWM. This is recommended for security reasons if the Web server should be made visible on the internet to allow access from anywhere. The Web dispatcher would be in front of the firewall, whereas SAP NetWeaver Gateway, and SAP EWM would be behind the firewall.

For more information, see *Labor Demand Planning* in SAP Library for SAP Extended Warehouse Management on SAP Help Portal at [help.sap.com](http://help.sap.com).

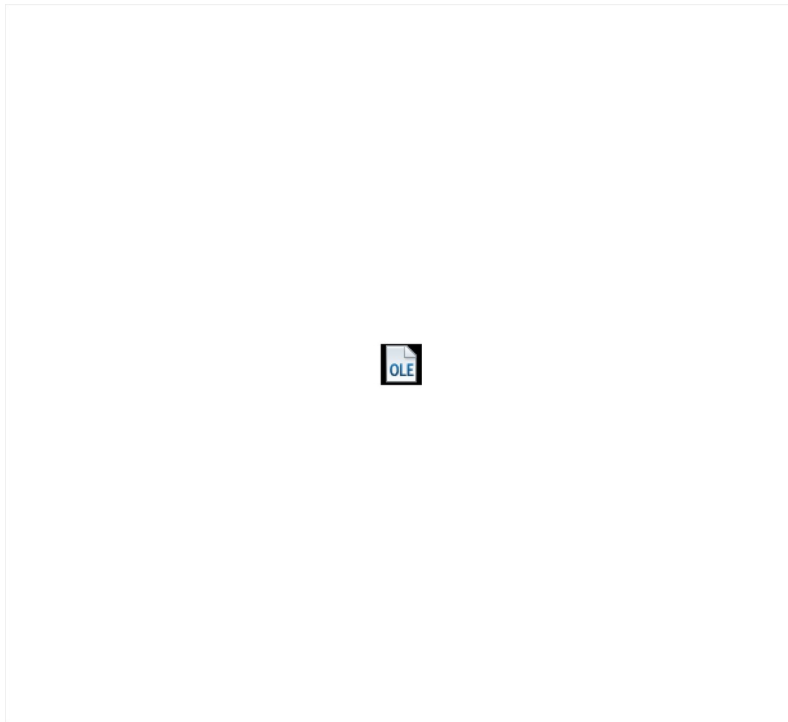


Figure 3: Overview: EWM with Labor Demand Planning – Minimal System Landscape for Intranet Usage

### Additional Information Regarding Enterprise Services

There are two technical scenarios for enterprise services shipped with SAP EWM.

#### Asynchronous Enterprise (EWM) Services

To run asynchronous enterprise services, you must install SAP NetWeaver Process Integration (PI).

#### **i** Note

SAP EWM services run with an SAP ERP system for message exchange.

#### Synchronous Enterprise (EWM) Services

Synchronous enterprise services run by accessing the back-end system either via WSDL/SOAP runtime directly or via SAP NetWeaver PI runtime (synchronous mediated). The latter requires an SAP NetWeaver PI integration server.

For information about the required releases and support packages, see [Business Processes of SAP Extended Warehouse Management \[page 36\]](#).

For more information about Enterprise Services, see [Service Enablement \[page 70\]](#).

### Additional Information Regarding Front-End Clients

#### NetWeaver Business Client

You must install the desktop version of NetWeaver Business Client (NWBC) 4.0 or higher to be able to use Web Dynpro applications in SAP EWM.

## Microsoft® Silverlight®

You must install Microsoft® Silverlight® 5.0 or higher to be able to use the graphical view for staging area planning in the *Shipping Cockpit* of SAP EWM.

## SAP Visual Business

SAP Visual Business is a user interface that enables you to visualize data from various sources in interactive geographical or three-dimensional applications. In SAP EWM 9.1, SAP Visual Business is used to display SAP EWM route data on geographical maps. This enables the maps to be seamlessly integrated into the user interface of SAP EWM 9.1. You must install a front-end client before you can use SAP Visual Business. For more information about SAP Visual Business, see the corresponding Installation and Configuration Guide on SAP Service Marketplace at [service.sap.com/instguides](http://service.sap.com/instguides).

## Additional Information Regarding Printing

EWM supports use of Smartforms and PDF-based forms. If you want to print documents such as delivery notes or bills of lading, you require Adobe Document Services (ADS). For more information, see *Configuration of Adobe Document Services for Print Applications* in SAP Library for SAP NetWeaver on SAP Help Portal at [help.sap.com/nw](http://help.sap.com/nw).

For more information about the installation of SAP NetWeaver, see the Master Guide for SAP NetWeaver 7.4 on SAP Help Portal at [help.sap.com/nw74/](http://help.sap.com/nw74/). In SAP Help Portal, choose ► *SAP NetWeaver 7.4* ► *Installation and Upgrade Information* ► *Master Guide* ↘.

## 2.6 Overall Upgrade Sequence

The following tables describe the overall upgrade sequence for SAP EWM 9.1.

These tables contain all available software components. However, to run a specific scenario or process, you only need a subset of available software components. Some are only required for special processes. For information about which software component is required to run a specific scenario, see [Software Component Matrix \[page 15\]](#).

For the latest component version and patch level requirements, see SAP Service Marketplace at [service.sap.com/sp-stacks](http://service.sap.com/sp-stacks).

## Process

Table 17: Upgrade Sequence for SAP EWM Standalone

Step	Action	Remarks / Subsequent Steps
1	Upgrade of SAP NetWeaver 7.4	For more information, see <a href="http://service.sap.com/instguides">service.sap.com/instguides</a> ► <i>SAP NetWeaver</i> ► <i>SAP NetWeaver 7.4</i> ↘.
2	Upgrade of SAP EWM 9.1	For more information, see <a href="http://service.sap.com/instguides">service.sap.com/instguides</a> ► <i>SAP Business Suite Applications</i> ► <i>SAP EWM</i> ► <i>Using SAP EWM 9.1</i> ↘.
3	Installation of SAP EWM UI 9.1	See SAP Note <a href="https://support.sap.com/en/notes/1894045">1894045</a> .

Table 18: Upgrade Sequence for SAP EWM as Add-On to SCM

Step	Action	Remarks / Subsequent Steps
1	Upgrade of SAP NetWeaver 7.4	For more information, see <a href="http://service.sap.com/instguides">service.sap.com/instguides</a> under ▶ <a href="#">SAP NetWeaver</a> ▶ <a href="#">SAP NetWeaver 7.4</a> ▶.
2	Upgrade of SAP SCM Server including SAP enhancement package 3	For more information, see <a href="http://service.sap.com/instguides">service.sap.com/instguides</a> ▶ <a href="#">SAP Business Suite Applications</a> ▶ <a href="#">SAP SCM</a> ▶ <a href="#">SAP EWM</a> ▶ <a href="#">Using SAP enhancement package 3 for SAP SCM 7.0</a> ▶.
3	Upgrade of SAP EWM 9.1	For more information, see <a href="http://service.sap.com/instguides">service.sap.com/instguides</a> ▶ <a href="#">SAP Business Suite Applications</a> ▶ <a href="#">SAP EWM</a> ▶ <a href="#">Using SAP EWM 9.1</a> ▶.
4	Installation of SAP EWM UI 9.1	See SAP Note <a href="#">1894045</a> .

Table 19: Upgrade Sequence for SAP EWM as Add-On to ERP

Step	Action	Remarks / Subsequent Steps
1	Upgrade of SAP NetWeaver 7.4	For more information, see <a href="http://service.sap.com/instguides">service.sap.com/instguides</a> ▶ <a href="#">SAP NetWeaver</a> ▶ <a href="#">SAP NetWeaver 7.4</a> ▶.
2	Upgrade of SAP ERP 6.0 including SAP enhancement package /	For more information, see <a href="http://service.sap.com/instguides">service.sap.com/instguides</a> ▶ <a href="#">SAP Business Suite Applications</a> ▶ <a href="#">SAP ERP</a> ▶ <a href="#">SAP ERP 6.0</a> ▶ <a href="#">SAP enhancement packages for SAP ERP 6.0</a> ▶ <a href="#">SAP enhancement package /for SAP ERP 6.0</a> ▶.
3	Upgrade of SAP EWM 9.10	For more information, see <a href="http://service.sap.com/instguides">service.sap.com/instguides</a> ▶ <a href="#">SAP Business Suite Applications</a> ▶ <a href="#">SAP EWM</a> ▶ <a href="#">Using SAP EWM 9.1</a> ▶.
4	Installation of SAP EWM UI 9.1	See SAP Note <a href="#">1894045</a> .

Table 20: Upgrade Sequence for PI Content for SAP EWM

Step	Action	Remarks / Subsequent Steps
1	Upgrade of SAP NetWeaver 7.4 or higher, usage type PI	This upgrade is only necessary if you use Enterprise Services for EWM. For more information, see <a href="http://service.sap.com/installNW74">service.sap.com/installNW74</a> .
2	Download of PI content for SAP EWM 9.1	This download is only necessary if you use Enterprise Services for EWM. PI Content for SAP EWM: XI CONTENT EWM 9.10, XI CONTENT QIE 200, XI CONTENT SCM BASIS 7.13 You can download the PI content for SAP EWM from SAP Service Marketplace at <a href="http://service.sap.com/swdcSupport">service.sap.com/swdcSupport</a> .

Table 21: Upgrade Sequence for BI Content for SAP EWM

Step	Action	Remarks / Subsequent Steps
1	Upgrade of SAP NetWeaver 7.0 including SAP enhancement package 3, usage type BI or higher	<p>This upgrade is only necessary if you use BI content for EWM.</p> <p>For more information, see <a href="http://service.sap.com/installNW74">service.sap.com/installNW74</a>.</p>
2	Download of BI content for SAP EWM 9.1	<p>This download is only necessary if you use BI Content for EWM.</p> <p>From SAP NetWeaver 7.0 BI Content Add-On 7 SPO2 on, business intelligence (BI) content is available for SAP EWM 9.1. The content is unchanged from EWM 9.0.</p> <p>You can download the BI content for SAP EWM from SAP Service Marketplace at <a href="http://service.sap.com/swdcSupport">service.sap.com/swdcSupport</a> ► <i>Packages and Patches</i> ► <i>Browse our Download Catalog</i> ► <i>SAP Content or Installation and Upgrades</i> ► <i>Browse our Download</i> ► <i>Catalog</i> ► <i>SAP Content</i> ▾.</p>

# 3 Business Scenarios of SAP Extended Warehouse Management

## 3.1 Dock Appointment Scheduling

You can use this business scenario to plan and proceed with appointments for trucks or other transportation units to arrive at the warehouse for loading or unloading. It also allows carriers chosen by the warehouse to plan their own appointments directly in the warehouse's system.

You must install the desktop version of NetWeaver Business Client (NWBC) 4.0 or higher to be able to use SAP Dock Appointment Scheduling.

You must install Microsoft® Silverlight® 5 or higher to be able to use the Web Dynpro applications with graphical views in SAP Dock Appointment Scheduling.

For more information, see Administrator's Guide for SAP Dock Appointment Scheduling on SAP Marketplace at SAP Service Marketplace at [service.sap.com/instguides](http://service.sap.com/instguides) under ► *SAP Business Suite Applications* ► *SAP SCM* ► *SAP EWM* ► *Using SAP EWM 9.1* ►.

This business scenario comprises the following business process: [Processing Dock Appointment Scheduling \[page 36\]](#).

### Technical System Landscape

The minimal release of the following software components are either mandatory or optional, as indicated below, for the technical implementation of this scenario. The following table provides just one way to implement the business process. For other combinations, see [service.sap.com/scl](http://service.sap.com/scl).

Table 22

Component	Mandatory	Optional
SAP EWM 9.1	X	-

For more information about the installation of these components, see [System Landscapes \[page 26\]](#).

### Further Information

The following documents provide more information about this business scenario:

Table 23

Content	Location
Scenario description	The scenario description is part of SAP Solution Manager implementation content ST-ICO SP39. For more information about SAP Solution Manager, see <a href="http://service.sap.com/solutionmanager">service.sap.com/solutionmanager</a> .
Configuration documentation	

## 3.2 Integration of Outbound Warehousing and Transportation

This business scenario contains outbound processes in which goods ordered by external customers are picked from your own warehouse and transported by an external carrier to the customer. It integrates warehousing with SAP Extended Warehouse Management (EWM) and transportation with SAP Transportation Management (TM).

This business scenario comprises the following business processes based on method of integration:

- Integration of Outbound Warehousing and Transportation using SAP ERP
  - [Managing Order-Based Outbound Processes \(EWM-ERP-TM\) \[page 37\]](#)
  - [Handling Cancellation in Order-Based Outbound Processes \(EWM-ERP-TM\) \[page 38\]](#)
  - [Managing Delivery-Based Outbound Processes \(EWM-ERP-TM\) \[page 39\]](#)
  - [Planning Transportation \(EWM\) and Billing \(TM\) in Outbound Processes \[page 40\]](#)
- Direct Integration of Outbound Warehousing and Transportation
  - [Managing Order-Based Outbound Processes \(TM-EWM\) \[page 41\]](#)
  - [Handling Cancellation in Order-Based Outbound Processes \(TM-EWM\) \[page 42\]](#)
  - [Managing Delivery-Based Outbound Processes \(TM-EWM\) \[page 43\]](#)

### Technical System Landscape

The minimal release of the following software components are either mandatory or optional, as indicated below, for the technical implementation of this scenario. The following table provides just one way to implement the business process. For other combinations, see [service.sap.com/scl](http://service.sap.com/scl).

Table 24

Component	Mandatory	Optional
SAP EHP1 for SAP NetWeaver 7.3	X	-
EPH6 for SAP ERP 6.0	X	-
SAP EWM 9.0 (using SAP ERP) SAP EWM 9.1 (direct integration)	X	-
SAP TM 9.0 (using SAP ERP) SAP TM 9.1 (direct integration)	X	-

For more information about the installation of these components, see [System Landscapes \[page 26\]](#).

### Further Information

The following documents provide more information about this business scenario:

Table 25

Content	Location
Scenario description	The scenario description is part of SAP Solution Manager implementation content ST-ICO SP39. For more information about SAP Solution Manager, see <a href="http://service.sap.com/solutionmanager">service.sap.com/solutionmanager</a> .
Configuration documentation	

## 3.3 Warehouse Management with Preconfigured Processes

This business scenario contains basic business processes used in a warehouse managed with SAP Extended Warehouse Management (EWM).

As warehousing processes strongly depend on the warehouse structure and on the products stored in the warehouse, all processes are integrated in a standard warehouse with a predefined structure and use common master data such as business partners, products, packaging specifications, and resources. The processes interact with each other and build a consistent product flow. For example, in an inbound process, you receive goods from vendors and store them on pallets in the warehouse. In an outbound process, you pick cartons or eaches of the same goods from a picking area to pack and ship them to customers. If the stock in the picking area falls below a predefined threshold, EWM triggers an automatic replenishment process to move cartons from the pallets to the picking area.

The business process descriptions include not only the system and user activities, but also the physical activities in the warehouse. For this reason, some process steps are not carried out in the system.

The business processes contain typical EWM functions. For example, some processes are paper-based, while others make use of radio frequency devices. Some use handling units to manage packed goods, while others use alternative units of measure for the same purpose. The processes also include monitoring, printing, scanning, and integration to SAP ERP.

You can use this business scenario to accelerate your EWM implementation. It is the recommended way for getting started with EWM.

This business scenario comprises the following business processes. All processes run in parallel in the warehouse:

- [Automatic Replenishment \[page 44\]](#)
- [Customer Returns with Quality Inspection \[page 45\]](#)
- [Cycle Counting \[page 46\]](#)
- [Inbound Process with Repacking for Putaway \[page 47\]](#)
- [Inbound Process Without Packing Information \(Manual Goods Receipt\) \[page 48\]](#)
- [Inbound Process Without Packing Information \(Manual Warehouse Task\) \[page 49\]](#)
- [Outbound Process Using Pick-HUs as Shipping HUs \[page 51\]](#)
- [Outbound Process Using Wave, Pick-HU, Packing, Staging, and Loading \[page 52\]](#)
- [Periodic Physical Inventory \[page 53\]](#)
- [Unplanned Scrapping Due to Damaged Stock \[page 54\]](#)

### Technical System Landscape

The minimal release of the following software components are either mandatory or optional, as indicated below, for the technical implementation of this scenario.

The following table provides just one way to implement the business process. For other combinations, see [service.sap.com/scl](http://service.sap.com/scl).

### Software Units

Table 26

Component	Mandatory	Optional
EPH3 for SAP ERP 6.0	X	–
SAP EWM 9.0	X	–

## Further Information

The following documents provide more information about this business scenario:

Table 27

Content	Location
Scenario Description	The scenario description is part of SAP Solution Manager implementation content ST-ICO SP39. For more information about SAP Solution Manager, see <a href="http://service.sap.com/solutionmanager">service.sap.com/solutionmanager</a> .
Configuration Documentation	

## Basic Settings for Warehouse Management with Preconfigured Processes

To implement SAP Extended Warehouse Management (EWM) 9.1 with the business scenario *Warehouse Management with Preconfigured Processes*, you need to consider basic configuration settings. Therefore, in SAP Solution Manager, you need to add the basic settings manually in the following way:

1. In transaction `SOLAR02`, select the structure node *Configuration*.
2. On the *Structure* tab page, select the *Change Configuration Structure* button.
3. On the *Structure* tab page, select the value help for the *Configuration Element* field.
4. In the displayed structure, choose the basic settings under **Solutions/Applications > SAP EWM > Basic Settings for SAP EWM 9.0**.

The following basic settings are relevant for the business scenario:

- *Integration of SAP ERP with SAP EWM*
- *Configuration of Warehouse Structure and Master Data for SAP EWM*

# 4 Business Processes of SAP Extended Warehouse Management

This section contains short process descriptions and information about the technical landscape of business processes delivered with SAP Solution Manager.

## ➔ Recommendation

Detailed process descriptions and configuration documentation are part of SAP Solution Manager implementation content ST-ICO SP39. For more information about SAP Solution Manager, see [service.sap.com/solutionmanager](http://service.sap.com/solutionmanager).

## 4.1 Processing Dock Appointment Scheduling

You use this process to plan the receipt of goods from external vendors. You want to optimize the capacity utilization of your inbound docks.

### i Note

You must install the desktop version of NetWeaver Business Client (NWBC) 4.0 or higher to be able to use SAP Dock Appointment Scheduling.

You must install Microsoft® Silverlight® 5 or higher to be able to use the Web Dynpro applications with graphical views in SAP Dock Appointment Scheduling.

Table 28: This process is used in the following scenarios:

Scenario	Solution/Scenario Group
Dock Appointment Scheduling	-

### i Note

You can fully integrate this business process with the business scenario [Warehouse Management with Preconfigured Processes](#) [page 34].

## Technical System Landscape

The minimal release of the following software components are either mandatory or optional, as indicated below, for the technical implementation of this process.

The following table provides just one way to implement the business process. For other combinations, see SAP Service Marketplace at [service.sap.com/scl](http://service.sap.com/scl).

## Software Units

Table 29

Component	Mandatory	Optional
SAP EWM 9.1	X	-

For more information about the installation of this component, see [System Landscapes \[page 26\]](#).

## Further Information

The following documents provide more information about this business process:

Table 30

Content	Location
Process Description	The process description is part of SAP Solution Manager implementation content ST-ICO SP39. For more information about SAP Solution Manager, see <a href="http://service.sap.com/solutionmanager">service.sap.com/solutionmanager</a> .
Configuration Documentation	
Test Case	

## 4.2 Managing Order-Based Outbound Processes (EWM-ERP-TM)

You use this integrated warehousing and transportation process to send ordered goods to external customers from a warehouse managed with SAP Extended Warehouse Management (EWM). The goods are transported by an external carrier.

In this process you plan the transportation in SAP Transportation Management (TM) on the basis of sales orders created in SAP ERP. SAP TM proposes and creates deliveries based on dates and quantities according to transportation planning results, taking into account transportation constraints such as resource availability and transportation durations. The SAP TM system sends delivery proposals to SAP ERP, which creates the deliveries and forwards them to SAP TM and to SAP EWM for further processing. As a result of the transportation planning in TM, a freight order is created in TM, which results in the creation of a shipment in ERP and of a transportation unit (TU) in EWM.

In the warehouse you pick the goods by waves directly into shipping HUs (pallets). You then stage the shipping HUs and load them into a truck before posting the goods issue. As a result of the goods issue, the deliveries are updated in ERP for a later billing and the freight order in TM is updated for a later freight cost settlement.

Table 31: This process is used in the following scenarios:

Scenario	Solution/Scenario Group
Integration of Outbound Warehousing and Transportation	-

### **i** Note

You can fully integrate this business process with the business scenario [Warehouse Management with Preconfigured Processes \[page 34\]](#).

## Technical System Landscape

The minimal release of the following software components are either mandatory or optional, as indicated below, for the technical implementation of this process.

The following table provides just one way to implement the business process. For other combinations, see SAP Service Marketplace at [service.sap.com/scl](http://service.sap.com/scl).

### Software Units

Table 32

Component	Mandatory	Optional
EHP6 for SAP ERP 6.0	X	-
SAP EWM 9.0	X	-
SAP TM 9.0	X	-

For more information about the installation of these components, see [System Landscapes \[page 26\]](#).

### Further Information

The following documents provide more information about this business process:

Table 33

Content	Location
Process Description	The process description is part of SAP Solution Manager implementation content ST-ICO SP39. For more information about SAP Solution Manager, see <a href="http://service.sap.com/solutionmanager">service.sap.com/solutionmanager</a> .
Configuration Documentation	
Test Case	

## 4.3 Handling Cancellation in Order-Based Outbound Processes (EWM-ERP-TM)

This process is a variant of *Managing Order-Based Outbound Processes (EWM-ERP-TM)*. During or at the end of the picking and staging step in the warehouse, the carrier calls the shipping office clerk to cancel the appointment. The shipping office clerk un-assigns the outbound delivery orders from the TU appointments and deletes the TU appointment. In the warehouse the picking and staging can be completed but the shipping HUs stay in the staging area (or are moved to a nearby area) and are ready for loading. The EWM system forwards the TU cancellation to ERP, where the corresponding shipment is deleted and a message is sent to TM for cancellation of the freight order. After the freight order cancellation, the DTRs are open for a new transportation planning and execution as described in process *Managing Order-Based Outbound Processes (EWM-ERP-TM)*.

Table 34: This process is used in the following scenarios:

Scenario	Solution/Scenario Group
Integration of Outbound Warehousing and Transportation	-

### **i** Note

You can fully integrate this business process with the business scenario [Warehouse Management with Preconfigured Processes \[page 34\]](#).

## Technical System Landscape

The minimal release of the following software components are either mandatory or optional, as indicated below, for the technical implementation of this process.

The following table provides just one way to implement the business process. For other combinations, see SAP Service Marketplace at [service.sap.com/scl](http://service.sap.com/scl).

## Software Units

Table 35

Component	Mandatory	Optional
EPH6 for SAP ERP 6.0	X	-
SAP EWM 9.0	X	-
SAP TM 9.0	X	-

For more information about the installation of these components, see [System Landscapes \[page 26\]](#).

## Further Information

The following documents provide more information about this business process:

Table 36

Content	Location
Process Description	The process description is part of SAP Solution Manager implementation content ST-ICO SP39. For more information about SAP Solution Manager, see <a href="http://service.sap.com/solutionmanager">service.sap.com/solutionmanager</a> .
Configuration Documentation	
Test Case	

## 4.4 Managing Delivery-Based Outbound Processes (EWM-ERP-TM)

You use this integrated warehousing and transportation process to send ordered goods to external customers from a warehouse managed with SAP Extended Warehouse Management (EWM). The goods are transported by an external carrier.

In this process the inventory planning has priority over the transportation planning: you plan the transportation in SAP Transportation Management (TM) on the basis of outbound deliveries created and scheduled in SAP ERP. As a result of the transportation planning in TM, a freight order is created in TM, which results in the creation of a shipment in ERP and of a transportation unit (TU) in EWM.

In the warehouse you pick the goods by waves directly into shipping HUs (pallets). You then stage the shipping HUs and load them into a truck before posting the goods issue. As a result of the goods issue, the deliveries are updated in ERP for a later billing and the freight order in TM is updated for a later freight cost settlement.

Table 37: This process is used in the following scenarios:

Scenario	Solution/Scenario Group
Integration of Outbound Warehousing and Transportation	-

**i Note**

You can fully integrate this business process with the business scenario [Warehouse Management with Preconfigured Processes \[page 34\]](#).

### Technical System Landscape

The minimal release of the following software components are either mandatory or optional, as indicated below, for the technical implementation of this process.

The following table provides just one way to implement the business process. For other combinations, see SAP Service Marketplace at [service.sap.com/scl](http://service.sap.com/scl).

### Software Units

Table 38

Component	Mandatory	Optional
EHP6 for SAP ERP 6.0	X	-
SAP EWM 9.0	X	-
SAP TM 9.0	X	-

For more information about the installation of these components, see [System Landscapes \[page 26\]](#).

### Further Information

The following documents provide more information about this business process:

Table 39

Content	Location
Process Description	The process description is part of SAP Solution Manager implementation content ST-ICO SP39. For more information about SAP Solution Manager, see <a href="http://service.sap.com/solutionmanager">service.sap.com/solutionmanager</a> .
Configuration Documentation	
Test Case	

## 4.5 Planning Transportation (EWM) and Billing (TM) in Outbound Processes

You use this integrated warehousing and transportation process to send ordered goods to external customers from a warehouse managed with SAP Extended Warehouse Management (EWM). The goods are transported by an external carrier.

In this process you execute the outbound deliveries created in SAP ERP as soon as possible in the warehouse and plan the transportation in SAP EWM accordingly. As a result of the transportation planning in EWM, you create a transportation unit (TU) in EWM and assign the outbound deliveries to it.

In the warehouse you pick the goods by waves directly into shipping HUs (pallets). You then stage the shipping HUs and load them into a truck before posting the goods issue. As a result of the goods issue, the deliveries are updated in ERP for a later billing, a shipment is created in ERP and a freight order in TM. The freight order is the basis for the freight cost settlement in TM

Table 40: This process is used in the following scenarios:

Scenario	Solution/Scenario Group
Integration of Outbound Warehousing and Transportation	-

### **i** Note

You can fully integrate this business process with the business scenario [Warehouse Management with Preconfigured Processes \[page 34\]](#).

## Technical System Landscape

The minimal release of the following software components are either mandatory or optional, as indicated below, for the technical implementation of this process.

The following table provides just one way to implement the business process. For other combinations, see SAP Service Marketplace at [service.sap.com/scl](http://service.sap.com/scl).

## Software Units

Table 41

Component	Mandatory	Optional
EHP6 for SAP ERP 6.0	X	-
SAP EWM 9.0	X	-
SAP TM 9.0	X	-

For more information about the installation of these components, see [System Landscapes \[page 26\]](#).

## Further Information

The following documents provide more information about this business process:

Table 42

Content	Location
Process Description	The process description is part of SAP Solution Manager implementation content ST-ICO SP39. For more information about SAP Solution Manager, see <a href="http://service.sap.com/solutionmanager">service.sap.com/solutionmanager</a> .
Configuration Documentation	
Test Case	

## 4.6 Managing Order-Based Outbound Processes (TM-EWM)

You use this integrated warehousing and transportation process to send ordered goods to external customers from a warehouse managed with SAP Extended Warehouse Management (SAP EWM). The goods are transported by an external carrier.

Table 43: This process is used in the following scenarios:

Scenario	Solution/Scenario Group
Integration of Outbound Warehousing and Transportation	-

**i Note**

You can fully integrate this business process with the business scenario [Warehouse Management with Preconfigured Processes \[page 34\]](#).

### Technical System Landscape

The minimal release of the following software components are either mandatory or optional, as indicated below, for the technical implementation of this scenario. The following table provides just one way to implement the business process. For other combinations, see <http://service.sap.com/scl>.

Table 44

Component	Mandatory	Optional
SAP ERP 6.0	X	-
SAP enhancement package 6 for SAP ERP 6.0 (SP4)	X	-
SAP EWM 9.1	X	-
SAP TM 9.1	X	-

For more information about the installation of these components, see [System Landscapes \[page 26\]](#).

### Further Information

The following documents provide more information about this business process:

Table 45

Content	Location
Process description	The process description is part of SAP Solution Manager implementation content ST-ICO SP39. For more information about SAP Solution Manager, see <a href="http://service.sap.com/solutionmanager">http://service.sap.com/solutionmanager</a> .
Configuration documentation	

## 4.7 Handling Cancellation in Order-Based Outbound Processes (TM-EWM)

This process is a variant of [Managing Order-Based Outbound Processes \(TM-EWM\) \[page 41\]](#).

During the picking and staging step in the warehouse, or at the end of the step, the carrier calls the shipping office clerk to cancel the appointment. The shipping office clerk removes the outbound delivery orders from the transportation unit (TU) appointments and deletes the TU appointment. In the warehouse, the picking and staging can be completed, but the shipping handling units (HUs) stay in the staging area, or are moved to a nearby area, and are ready for loading.

Table 46: This process is used in the following scenarios:

Scenario	Solution/Scenario Group
Integration of Outbound Warehousing and Transportation	-

**i Note**

You can fully integrate this business process with the business scenario [Warehouse Management with Preconfigured Processes \[page 34\]](#).

### Technical System Landscape

The minimal release of the following software components are either mandatory or optional, as indicated below, for the technical implementation of this process. The following table provides just one way to implement the business process. For other combinations, see <http://service.sap.com/scl>.

Table 47

Component	Mandatory	Optional
EHP7 for SAP ERP 6.0	X	-
SAP EWM 9.1	X	-
SAP TM 9.1	X	-

For more information about the installation of these components, see [System Landscapes \[page 26\]](#).

### Further Information

The following documents provide more information about this business process:

Table 48

Content	Location
Process Description	The process description is part of SAP Solution Manager implementation content ST-ICO SP39. For more information about SAP Solution Manager, see <a href="http://service.sap.com/solutionmanager">service.sap.com/solutionmanager</a> .
Configuration Documentation	

## 4.8 Managing Delivery-Based Outbound Processes (TM-EWM)

You use this integrated warehousing and transportation process to send ordered goods to external customers from a warehouse managed with SAP Extended Warehouse Management (SAP EWM). The goods are transported by an external carrier.

Table 49: This process is used in the following scenarios:

Scenario	Solution/Scenario Group
Integration of Outbound Warehousing and Transportation	-

## **i** Note

You can fully integrate this business process with the business scenario [Warehouse Management with Preconfigured Processes \[page 34\]](#).

### Technical System Landscape

The minimal release of the following software components are either mandatory or optional, as indicated below, for the technical implementation of this process. The following table provides just one way to implement the business process. For other combinations, see <http://service.sap.com/scl>.

Table 50

Component	Mandatory	Optional
EHP7 for SAP ERP 6.0	X	-
SAP EWM 9.1	X	-
SAP TM 9.1	X	-

For more information about the installation of these components, see [System Landscapes \[page 26\]](#).

### Further Information

The following documents provide more information about this business process:

Table 51

Content	Location
Process Description	The process description is part of SAP Solution Manager implementation content ST-ICO SP39. For more information about SAP Solution Manager, see <a href="http://service.sap.com/solutionmanager">http://service.sap.com/solutionmanager</a> .
Configuration Documentation	

## 4.9 Automatic Replenishment

### Overview

You use this business process to fill up a picking area in accordance with the demand for products that you pick in this area. In this automatic replenishment process, you use warehouse orders (WOs) to carry out replenishment. The system creates replenishment WOs in the background when you confirm a pick-WO and the stock in the source bin falls below a predefined threshold. The system calculates the replenishment quantity in accordance with the maximum and minimum quantity maintained for the product in the product master.

Table 52: This process is used in the following scenarios:

Scenario	Solution/Scenario Group
Warehouse Management with Preconfigured Processes	-

### Technical System Landscape

The minimal release of the following software components are either mandatory or optional, as indicated below, for the technical implementation of this process.

The following table provides just one way to implement the business process. For other combinations, see [service.sap.com/scl](http://service.sap.com/scl).

## Software Units

Table 53

Component	Mandatory	Optional
SAP EWM 9.0	X	–

The following documents provide more information about this business process:

## Further Information

Table 54

Content	Location
Process Description	The process description is part of SAP Solution Manager implementation content ST-ICO SP39. For more information about SAP Solution Manager, see <a href="http://service.sap.com/solutionmanager">service.sap.com/solutionmanager</a> .
Configuration Documentation	
Test Case	

## 4.10 Customer Returns with Quality Inspection

### Overview

You use this business process to handle customer returns. In this process, only small quantities (for example, single pieces) are returned. When you receive the rejected goods, you perform a 100% inspection. The quality inspection is triggered and carried out in SAP Extended Warehouse Management (SAP EWM). Depending on the inspection result, you decide if the goods are put away or scrapped.

By phone, a customer informs a sales clerk about a coming return and requests an identifier for it. The sales clerk creates a returns delivery and communicates the number to the customer. The customer labels the goods with the delivery number and returns them. A truck arrives with the rejected goods. When the goods are unloaded, a goods receipt (GR) office clerk posts the GR. A quality inspection (QI) document is created automatically. A warehouse worker brings the rejected goods to the QI work center. A QI specialist checks the goods. He or she packs undamaged goods into cartons and puts damaged goods into a wire basket. He or she also enters the decision codes in the system. According to the decision codes, the system creates warehouse orders (WOs) for moving the goods to the putaway bins or to the scrapping zone. The putaway WOs are printed automatically. The QI specialist attaches the printouts to the corresponding cartons. The warehouse worker brings the cartons with the undamaged goods to the final bins and passes the printouts to the internal office. A warehouse clerk confirms the WOs in the system. The WOs for moving the damaged goods to the scrapping zone are confirmed automatically. The warehouse worker brings the wire basket with the damaged goods to the scrapping zone as soon as the wire basket is full. A background job runs regularly to empty the scrapping zone.

Table 55: This process is used in the following scenarios:

Scenario	Solution/Scenario Group
Warehouse Management with Preconfigured Processes	-

## Technical System Landscape

The minimal release of the following software components are either mandatory or optional, as indicated below, for the technical implementation of this process.

The following table provides just one way to implement the business process. For other combinations, see [service.sap.com/scl](http://service.sap.com/scl).

### Software Units

Table 56

Component	Mandatory	Optional
EPH3 for SAP ERP 6.0	X	–
SAP EWM 9.0	X	–

For more information about the installation of these components, see [System Landscapes \[page 26\]](#).

### Further Information

The following documents provide more information about this business process:

Table 57

Content	Location
Process Description	The process description is part of SAP Solution Manager implementation content ST-ICO SP39. For more information about SAP Solution Manager, see <a href="http://service.sap.com/solutionmanager">service.sap.com/solutionmanager</a> .
Configuration Documentation	
Test Case	

## 4.11 Cycle Counting

### Overview

You use this business process as a product-specific physical inventory (PI) process that you perform at regular intervals to ensure inventory accuracy in your warehouse and to meet legal requirements. These intervals depend on the Cycle Counting Indicator field that you maintain for all products that you want to include in cycle counting. The Cycle Counting Indicator field reflects the classification of your products according to their impact on operations and finance. You can automatically classify your products and maintain the Cycle Counting Indicator field for the products, for example, with the help of an ABC analysis in SAP Supply Chain Management (SAP SCM).

In this process, you create PI documents for all cycle-counting-relevant products that are due to be counted. You carry out the counting using a radio frequency (RF) device or paper. By posting the PI documents, you adjust the book inventory in SAP Extended Warehouse Management (EWM). By posting the differences to SAP ERP, you balance the stock accounts.

You can monitor the progress of your PI by using the warehouse management monitor.

Table 58: This process is used in the following scenarios:

Scenario	Solution/Scenario Group
Warehouse Management with Preconfigured Processes	-

## Technical System Landscape

The minimal release of the following software components are either mandatory or optional, as indicated below, for the technical implementation of this process.

The following table provides just one way to implement the business process. For other combinations, see [service.sap.com/scl](http://service.sap.com/scl).

### Software Units

Table 59

Component	Mandatory	Optional
SAP EWM 9.0	X	–

For more information about the installation of these components, see [System Landscapes \[page 26\]](#).

### Further Information

The following documents provide more information about this business process:

Table 60

Content	Location
Process Description	The process description is part of SAP Solution Manager implementation content ST-ICO SP39. For more information about SAP Solution Manager, see <a href="http://service.sap.com/solutionmanager">service.sap.com/solutionmanager</a> .
Configuration Documentation	
Test Case	

## 4.12 Inbound Process with Repacking for Putaway

### Overview

You use this business process to receive packed goods from vendors and repack them at a packing station before moving them to a pallet rack in the warehouse. The vendors send advanced shipping notifications (ASNs) to SAP ERP. A truck contains one or more inbound deliveries. The goods are packed by the vendors but must be repacked for putaway purposes so that each pallet contains only a single product.

When a truck arrives, a checkpoint clerk creates a transportation unit (TU) in SAP Extended Warehouse Management (EWM) and directs the truck to a door. The truck driver brings the delivery notes to the goods receipt (GR) office. A GR office clerk finds the corresponding inbound deliveries in the system and assigns them to the TU. If the number of handling units (HUs) is printed on the delivery notes, the GR office clerk creates HUs with unknown content for the deliveries, and prints the labels for the HUs. A warehouse worker unloads the truck. A warehouse clerk checks the quantities on the pallets and attaches the labels to the pallets at the staging area. If the number of HUs is not printed on the delivery notes, the warehouse clerk counts the number of unloaded pallets and writes them on the delivery notes. He or she then takes the revised delivery notes to the GR office. The GR office clerk corrects the GR quantities; if necessary he or she creates HUs with unknown content, and posts the GR. He or she checks out the truck and the truck leaves the door and the premises. Upon the GR posting, the system automatically creates HU warehouse tasks (WTs) to move all pallets of the deliveries to a storage bin in the inbound section of the packing station. At the packing station, a packer repacks the goods onto pallets for storage. Once an HU is closed in the system, the system automatically creates the HU WTs for the putaway of the pallet into the final storage bin. A warehouse worker (for example, a forklift driver) executes the putaway using a radio frequency (RF) device.

Table 61: This process is used in the following scenarios:

Scenario	Solution/Scenario Group
Warehouse Management with Preconfigured Processes	-

## Technical System Landscape

The minimal release of the following software components are either mandatory or optional, as indicated below, for the technical implementation of this process.

The following table provides just one way to implement the business process. For other combinations, see [service.sap.com/scl](http://service.sap.com/scl).

## Software Units

Table 62

Component	Mandatory	Optional
EHP3 for SAP ERP 6.0	X	-
SAP EWM 9.0	X	-

For more information about the installation of these components, see [System Landscapes \[page 26\]](#).

## Further Information

The following documents provide more information about this business process:

Table 63

Content	Location
Process Description	The process description is part of SAP Solution Manager implementation content ST-ICO SP39. For more information about SAP Solution Manager, see <a href="http://service.sap.com/solutionmanager">service.sap.com/solutionmanager</a> .
Configuration Documentation	
Test Case	

## 4.13 Inbound Process Without Packing Information (Manual Goods Receipt)

### Overview

You use this business process to receive goods on pallets from external vendors. Each pallet contains only a single product. You do not receive packing information from the vendors, but some vendors send advanced shipping notifications (ASN) to SAP ERP. You check the goods in the goods receipt area, and post the goods receipt (GR) in SAP Extended Warehouse Management (EWM). Upon GR posting, warehouse orders (WOs) are created. Depending on the product attributes, you move the goods to different areas in the warehouse using the information contained in the printed WOs. You move uncategorized products to a clarification zone before you put them away.

When a truck arrives, a checkpoint clerk directs the truck to a door. The truck driver brings the delivery note to the GR office. If the vendor has sent an ASN to SAP ERP, a GR office clerk finds the corresponding inbound delivery in EWM. If there is no inbound delivery in the system, the GR office clerk creates it in EWM. A warehouse worker unloads the truck. A warehouse clerk checks the goods against the delivery note, writes differences on the

delivery note, and takes the revised delivery note to the GR office. The GR office clerk posts the GR. Upon GR posting, the system automatically creates and prints WOs for the inbound delivery to move the goods into the warehouse. The truck leaves. The warehouse worker moves the goods from the GR area into the warehouse. The goods are then moved to the following storage types:

- A storage type for small parts, which is subdivided for slow-moving and fast-moving items
- A storage type for large parts, where fixed storage bins are used

In the storage type for small parts, the next empty storage bin is determined as the destination storage bin. Products that have not yet been categorized as small or large parts, or that have no fixed bin assignment, are moved into a separate storage type for clarification. When the goods are in the destination storage bins, the warehouse clerk confirms the putaway WOs.

Table 64: This process is used in the following scenarios:

Scenario	Solution/Scenario Group
Warehouse Management with Preconfigured Processes	-

### Technical System Landscape

The minimal release of the following software components are either mandatory or optional, as indicated below, for the technical implementation of this process.

The following table provides just one way to implement the business process. For other combinations, see [service.sap.com/scl](http://service.sap.com/scl).

### Software Units

Table 65

Component	Mandatory	Optional
EPH3 for SAP ERP 6.0	X	-
SAP EWM 9.0	X	-

For more information about the installation of these components, see [System Landscapes \[page 26\]](#).

### Further Information

The following documents provide more information about this business process:

Table 66

Content	Location
Process Description	The process description is part of SAP Solution Manager implementation content ST-ICO SP39. For more information about SAP Solution Manager, see <a href="http://service.sap.com/solutionmanager">service.sap.com/solutionmanager</a> .
Configuration Documentation	
Test Case	

## 4.14 Inbound Process Without Packing Information (Manual Warehouse Task)

### Overview

You use this business process to receive goods on pallets from external vendors. Each pallet contains only a single product. You do not receive packing information from the vendors, but some vendors send advanced shipping

notifications (ASN) to SAP ERP. You check the goods in the goods receipt (GR) area, and create warehouse orders (WOs) in SAP Extended Warehouse Management (EWM). Depending on the product attributes, you move the goods to different areas in the warehouse using the information contained in the printed WOs. You move uncategorized products to a clarification zone before you put them away. When you confirm the WOs, the system automatically posts the GR.

When the truck arrives, a checkpoint clerk directs the truck to a door. The truck driver brings the delivery note to the GR office. If the vendor has sent an ASN to SAP ERP, a GR office clerk finds the corresponding inbound delivery in EWM. If there is no inbound delivery in the system, the GR office clerk creates it in EWM. A warehouse worker unloads the truck. A warehouse clerk checks the goods against the delivery note, writes differences on the delivery note, and takes the revised delivery note to the GR office. The GR office clerk creates WOs for the inbound delivery to move the goods into the warehouse. The system automatically prints the WOs. The truck leaves. The warehouse worker moves the goods from the GR area into the warehouse. The goods are then moved to the following storage types:

- A storage type for small parts, which is subdivided for slow-moving and fast-moving items
- A storage type for large parts, where fixed storage bins are used

In the storage type for small parts, the next empty storage bin is determined as the destination storage bin. Products that have not yet been categorized as small or large parts, or that have no fixed bin assignment, are moved into a separate storage type for clarification. When the goods are in the destination storage bins, the warehouse clerk confirms the putaway WOs. Upon the confirmation of the putaway WOs, the system automatically posts the GR.

Table 67: This process is used in the following scenarios:

Scenario	Solution/Scenario Group
Warehouse Management with Preconfigured Processes	.-

## Technical System Landscape

The minimal release of the following software components are either mandatory or optional, as indicated below, for the technical implementation of this process.

The following table provides just one way to implement the business process. For other combinations, see [service.sap.com/scl](http://service.sap.com/scl).

## Software Units

Table 68

Component	Mandatory	Optional
EHP3 for SAP ERP 6.0	X	–
SAP EWM 9.0	X	–

For more information about the installation of these components, see [System Landscapes \[page 26\]](#).

## Further Information

The following documents provide more information about this business process:

Table 69

Content	Location
Process Description	The process description is part of SAP Solution Manager implementation content ST-ICO SP39. For more information
Configuration Documentation	

Content	Location
Test Case	about SAP Solution Manager, see <a href="http://service.sap.com/solutionmanager">service.sap.com/solutionmanager</a> .

## 4.15 Outbound Process Using Pick-HUs as Shipping HUs

### Overview

You use this business process to send high-priority ordered goods to external customers. Only small quantities (for example, single pieces) are ordered by the customers. On a daily basis a trucks arrives at the warehouse to transport the high-priority deliveries. Warehouse orders (WOs) are created during outbound delivery order creation and are used to optimize the picking process. Picking consists of a single paper-based step using pick-handling units (HUs) that you ship to the customers. Using one transportation route, you deliver goods to several customers.

Upon outbound delivery order creation, the system automatically assigns the outbound delivery orders to routes. The system then creates warehouse tasks (WTs) and warehouse orders (WOs) automatically, and the warehouse activities begin. The WOs are printed as a work list for a paper-based picking. A warehouse worker takes the printout of a WO and prepares a pick-HU to be used for the picking of the products listed on the WO printout. He or she then takes two labels with the same external HU identifiers, and sticks one to the physical HU and the other to the printout of the WO. The warehouse worker carries out the picking for one or several pick-HUs, and brings the goods to the staging area. The warehouse worker then hands over the printouts of the WOs to the warehouse clerk responsible for the confirmation of the picking. With the confirmation of the WOs, the pick-HUs are created in the system. In the staging area a warehouse worker weighs and labels the HUs with the shipping label, and creates an outbound delivery for each HU. This triggers the printout of a delivery note, which is put into the HU before the HU is physically closed. When the truck arrives, it is checked in and directed to a door by a checkpoint clerk. Once the truck arrives at the door, the warehouse worker commences the physical loading of the HUs. After he or she has finished the physical loading of all HUs for the route, a shipping office clerk posts the goods issue (GI), prints a second delivery note for each outbound delivery, and hands the delivery notes over to the truck driver. The truck leaves the premises.

Table 70: This process is used in the following scenarios:

Scenario	Solution/Scenario Group
Warehouse Management with Preconfigured Processes	-

### Technical System Landscape

The minimal release of the following software components are either mandatory or optional, as indicated below, for the technical implementation of this process.

The following table provides just one way to implement the business process. For other combinations, see [service.sap.com/scl](http://service.sap.com/scl).

### Software Units

Table 71

Component	Mandatory	Optional
EPH3 for SAP ERP 6.0	X	-

Component	Mandatory	Optional
SAP EWM 9.0	X	–

For more information about the installation of these components, see [System Landscapes \[page 26\]](#).

### Further Information

The following documents provide more information about this business process:

Table 72

Content	Location
Process Description	The process description is part of SAP Solution Manager implementation content ST-ICO SP39. For more information about SAP Solution Manager, see <a href="http://service.sap.com/solutionmanager">service.sap.com/solutionmanager</a> .
Configuration Documentation	
Test Case	

## 4.16 Outbound Process Using Wave, Pick-HU, Packing, Staging, and Loading

### Overview

You use this business process to send ordered goods to external customers. In this process, you can send bigger quantities (for example, cartons or pallets) to the customers. You pick the goods by waves into pick-handling units (pick-HUs) and consolidate them into shipping HUs at a packing station. You then stage the shipping HUs and load them into a truck before posting the goods issue. You use a separate route for each customer.

When the outbound delivery orders are created, the system automatically assigns the outbound delivery orders to routes depending on scheduled dates. After the route assignment, the outbound delivery orders are assigned to picking waves automatically. A shipping office clerk orders transportation capacity from the shipper for each route. After the confirmation by the shipper, the shipping office clerk creates transportation units (TUs) and assigns them to the route and a door used for this route. With the automatic release of the waves, the warehouse activities begin. Warehouse workers pick the goods from different areas in the warehouse using radio frequency (RF) devices and bring them to a packing station where they are consolidated and packed into shipping HUs such as europallets. The packer attaches shipping labels to the shipping HUs. The shipping HUs are then moved to the staging area. When the truck arrives, it is checked in and directed to the door. The goods are loaded from the staging area into the truck. When the loading is complete, the shipping office clerk posts the goods issue (GI), prints the delivery notes and loading lists, and hands them over to the truck driver. The shipping office clerk checks out the truck and the truck leaves the door and the premises.

Table 73: This process is used in the following scenarios:

Scenario	Solution/Scenario Group
Warehouse Management with Preconfigured Processes	-

### Technical System Landscape

The minimal release of the following software components are either mandatory or optional, as indicated below, for the technical implementation of this process.

The following table provides just one way to implement the business process. For other combinations, see [service.sap.com/scl](http://service.sap.com/scl).

## Software Units

Table 74

Component	Mandatory	Optional
EPH3 for SAP ERP 6.0	X	–
SAP EWM 9.0	X	–

The following documents provide more information about this business process:

## Further Information

Table 75

Content	Location
Process Description	The process description is part of SAP Solution Manager implementation content ST-ICO SP39. For more information about SAP Solution Manager, see <a href="http://service.sap.com/solutionmanager">service.sap.com/solutionmanager</a> .
Configuration Documentation	
Test Case	

## 4.17 Periodic Physical Inventory

### Overview

You use this business process to control your warehouse stock and to meet legal requirements. In this process, you create physical inventory (PI) documents for a chosen number of storage bins or products on a regular basis to spread the PI workload over the year. You carry out the counting using a radio frequency (RF) device or paper. By posting the PI documents, you adjust the book inventory in SAP Extended Warehouse Management (SAP EWM). By posting the differences to SAP ERP, you balance the stock accounts.

You can monitor the progress of your PI by using the warehouse management monitor.

Table 76: This process is used in the following scenarios:

Scenario	Solution/Scenario Group
Warehouse Management with Preconfigured Processes	–

### Technical System Landscape

The minimal release of the following software components are either mandatory or optional, as indicated below, for the technical implementation of this process.

The following table provides just one way to implement the business process. For other combinations, see [service.sap.com/scl](http://service.sap.com/scl).

## Software Units

Table 77

Component	Mandatory	Optional
SAP EWM 9.0	X	–

For more information about the installation of these components, see [System Landscapes \[page 26\]](#).

## Further Information

The following documents provide more information about this business process:

Table 78

Content	Location
Process Description	The process description is part of SAP Solution Manager implementation content ST-ICO SP39. For more information about SAP Solution Manager, see <a href="http://service.sap.com/solutionmanager">service.sap.com/solutionmanager</a> .
Configuration Documentation	
Test Case	

## 4.18 Unplanned Scrapping Due to Damaged Stock

### Overview

You use this business process to scrap damaged stock detected in the warehouse. You change the stock type of the damaged stock so that it is not available for sale anymore. In this process, you use a warehouse order (WO) to move the stock to a scrapping container in the scrapping zone. The WO is carried out using a mobile device or paper. A background job runs regularly to empty the scrapping zone. A truck arrives to pick up the scrapping container.

#### **i** Note

You can also use this business process to scrap stock due to expired best-before date/shelf life expiration date (BBD/SLED).

Table 79: This process is used in the following scenarios:

Scenario	Solution/Scenario Group
Warehouse Management with Preconfigured Processes	-

### Technical System Landscape

The minimal release of the following software components are either mandatory or optional, as indicated below, for the technical implementation of this process.

The following table provides just one way to implement the business process. For other combinations, see [service.sap.com/scl](http://service.sap.com/scl).

## Software Units

Table 80

Component	Mandatory	Optional
SAP EWM 9.0	X	–

The following documents provide more information about this business process:

## Further Information

Table 81

Content	Location
Process Description	The process description is part of SAP Solution Manager implementation content ST-ICO SP39. For more information about SAP Solution Manager, see <a href="http://service.sap.com/solutionmanager">service.sap.com/solutionmanager</a> .
Configuration Documentation	
Test Case	

## 4.19 Planning Labor Demand for Outbound

You can use this business process to plan your resources based on provided information about the planned workload. In a warehouse with a huge amount of throughput, typically several hundred workers are busy with all kind of warehouse activities in different activity areas. They are organized hierarchically (for example, warehouse supervisor -> shift lead -> team lead). A team lead could be responsible for 8-10 workers, and several activity areas and activities. He knows about the knowledge and performance of his workers and about their absence (due to, for example, vacation or illness). The most important activities are those related to the good issue process. The warehouse has to prepare the goods for pickup in time and in quality. The scheduling is typically set by sales or transportation and must be met by the warehouse. In general the warehouse is expected to be flexible so that it can fulfill the scheduling. The flexibility reserve of the warehouse includes less urgent activities, such as inventory counting and putaway, as well as picking of 'soft committed' deliveries. If there is not enough work, these less important activities can be started.

Table 82: This process is used in the following scenarios:

Scenario	Solution/Scenario Group
-	Additional Warehouse Management Processes Based on Preconfigured Warehouse

### **i** Note

You can fully integrate this business process with the business scenario [Warehouse Management with Preconfigured Processes \[page 34\]](#).

## Technical System Landscape

The minimal release of the following software components are either mandatory or optional, as indicated below, for the technical implementation of this process.

The following table provides just one way to implement the business process. For other combinations, see SAP Service Marketplace at [service.sap.com/scl](http://service.sap.com/scl).

## Software Units

Table 83

Component	Mandatory	Optional
EHP3 for SAP ERP 6.0	X	-
SAP EWM 9.1	X	-

For more information about the installation of these components, see [System Landscapes \[page 26\]](#).

## Further Information

The following documents provide more information about this business process:

Table 84

Content	Location
Process Description	The process description is part of SAP Solution Manager implementation content ST-ICO SP39. For more information about SAP Solution Manager, see <a href="http://service.sap.com/solutionmanager">service.sap.com/solutionmanager</a> .
Configuration Documentation	
Test Case	

## 4.20 Outbound Process with Cartonization Planning

### Overview

You use this business process to send ordered goods to external customers. In this process you send smaller quantities of many different products to many different customers which are delivered within the same route. The necessary packaging materials are optimized by usage of cartonization planning to minimize whitespace for the shippers' truck as there are many possible different packaging materials to choose from. This information enables you to gain information about volume, weight and number of shipping HUs at a very early point in time during the outbound process which can be used for ordering a carrier regarding the upcoming shipments/loading.

You pick the goods by waves into pick-HUs and consolidate them into shipping HUs at a packing station according to the planned shipping handling units (PSHU). You then stage the shipping HUs and load them into a truck before posting the goods issue. You use the same route to deliver each customer.

Table 85: This process is used in the following scenarios:

Scenario	Solution/Scenario Group
-	Additional Warehouse Management Processes Based on Preconfigured Warehouse

### Note

You can fully integrate this business process with the business scenario [Warehouse Management with Preconfigured Processes \[page 34\]](#).

## Technical System Landscape

The minimal release of the following software components are either mandatory or optional, as indicated below, for the technical implementation of this process.

The following table provides just one way to implement the business process. For other combinations, see [service.sap.com/scl](http://service.sap.com/scl).

## Software Units

Table 86

Component	Mandatory	Optional
EHP3 for SAP ERP 6.0	X	–
EHP2 for SAP EWM 7.0	X	–

For more information about the installation of these components, see [System Landscapes \[page 26\]](#).

## Further Information

The following documents provide more information about this business process:

Table 87

Content	Location
Process Description	The process description is part of SAP Solution Manager implementation content ST-ICO SP39. For more information about SAP Solution Manager, see <a href="http://service.sap.com/solutionmanager">service.sap.com/solutionmanager</a> .
Configuration Documentation	
Test Case	

## 4.21 Processing Inbound with SAP Dock Appointment Scheduling

You use this process to plan the receipt of goods from external vendors. You want to optimize the capacity utilization of your inbound doors. Therefore the carriers who deliver the products reserve a time slot at least one day before the truck arrives at the warehouse. This reservation creates a loading appointment in Dock Appointment Scheduling. When the truck arrives at the warehouse, you check if an appointment exists for the truck. Then you track the assignment of the truck to a door of the loading point. After unloading, the truck leaves the door and the warehouse. Finally you can analyze the punctuality of your carriers.

### **i** Note

You must install the desktop version of NetWeaver Business Client (NWBC) 4.0 or higher to be able to use SAP Dock Appointment Scheduling.

You must install Microsoft® Silverlight® 5 or higher to be able to use the Web Dynpro applications with graphical views in SAP Dock Appointment Scheduling.

Table 88: This process is used in the following scenarios:

Scenario	Solution/Scenario Group
-	Additional Warehouse Process Based on Preconfigured Warehouse / generic EWM business process

## **i** Note

You can fully integrate this business process with the business scenario [Warehouse Management with Preconfigured Processes \[page 34\]](#).

### Technical System Landscape

The minimal release of the following software components are either mandatory or optional, as indicated below, for the technical implementation of this process.

The following table provides just one way to implement the business process. For other combinations, see SAP Service Marketplace at [service.sap.com/scl](http://service.sap.com/scl).

### Software Units

Table 89

Component	Mandatory	Optional
EHP3 for SAP ERP 6.0	X	-
SAP EWM 9.1	X	-

For more information about the installation of this component, see [System Landscapes \[page 26\]](#).

### Further Information

The following documents provide more information about this business process:

Table 90

Content	Location
Process Description	The process description is part of SAP Solution Manager implementation content ST-ICO 150_700 SP34. For more information about SAP Solution Manager, see <a href="http://service.sap.com/solutionmanager">service.sap.com/solutionmanager</a> .
Configuration Documentation	
Test Case	

## 4.22 Merchandise Distribution

### Overview

Merchandise distribution is a variant of cross-docking, which is particularly important in the retail industry.

When cross-docking, products that have arrived at the warehouse are brought from goods receipt directly to goods issue without being put away. Merchandise distribution means that retailers, for example, plan, control, and manage their flow of products or merchandise from the vendors via distribution centers to the stores or customers. Vendors already pre-package all items based on the relevant customer. This means that in the warehouse, when handling units arrive, they already contain information about the customer from whom they are packed. These handling units can be mixed handling units; that means, they can contain multiple items of an outbound delivery.

Table 91: This process is used in the following scenarios:

Scenario	Solution/Scenario Group
-	Other Warehouse Management Processes

Scenario	Solution/Scenario Group
Warehouse & DC Management	SAP for Retail

## Technical System Landscape

The minimal release of the following software components are either mandatory or optional, as indicated below, for the technical implementation of this process.

The following table provides just one way to implement the business process. For other combinations, see [service.sap.com/scl](http://service.sap.com/scl).

## Software Units

Table 92

Component	Mandatory	Optional
EHP4 for SAP ERP 6.0	X	–
SAP EWM 7.0	X	–

For more information about the installation of these components, see [System Landscapes \[page 26\]](#)

## Further Information

The following documents provide more information about this business process:

Table 93

Content	Location
Process Description	The process description is part of SAP Solution Manager implementation content ST-ICO SP39. For more information about SAP Solution Manager, see <a href="http://service.sap.com/solutionmanager">service.sap.com/solutionmanager</a> .
Configuration Documentation	

## 4.23 Opportunistic Cross-Docking

### Overview

Opportunistic cross-docking is a variant of cross-docking.

When cross-docking, products that have arrived at the warehouse are brought from goods receipt directly to goods issue without being put away. Opportunistic cross-docking allows incoming deliveries to be redirected to cover outbound requirements. The cross docking decision is made in SAP EWM.

Table 94: This process is used in the following scenarios:

Scenario	Solution/Scenario Group
-	Other Warehouse Management Processes
Service Parts Warehousing	SAP Service and Asset Management
Storage and Fulfillment	Cross-Application Implementation Packages/Logistics

## Technical System Landscape

The minimal release of the following software components are either mandatory or optional, as indicated below, for the technical implementation of this process.

The following table provides just one way to implement the business process. For other combinations, see [service.sap.com/scl](https://service.sap.com/scl).

## Software Units

Table 95

Component	Mandatory	Optional
SAP EWM 7.0	X	–

For more information about the installation of these components, see [System Landscapes \[page 26\]](#).

## Further Information

The following documents provide more information about this business process:

Table 96

Content	Location
Process Description	The process description is part of SAP Solution Manager implementation content ST-ICO SP39. For more information about SAP Solution Manager, see <a href="https://service.sap.com/solutionmanager">service.sap.com/solutionmanager</a> .
Configuration Documentation	

## 4.24 Warehouse Inbound Processing with Transportation Integration

This process allows you to use transportation planning of SAP ERP in the inbound process of Extended Warehouse Management (EWM). The process uses the shipment documents as a basis for carrying out transportation planning. The system converts handling units (HUs) in ERP shipments into transportation unit (TU) activities (and optionally vehicle activities). You can control and monitor the entire transportation process from the planning stage to the goods receipt at your own plant.

Table 97: This process is used in the following scenarios:

Scenario	Solution/Scenario Group
-	Other Warehouse Management Processes

## Technical System Landscape

The minimal release of the following software components are either mandatory or optional, as indicated below, for the technical implementation of this process.

The following table provides just one way to implement the business process. For other combinations, see [service.sap.com/scl](https://service.sap.com/scl).

## Software Units

Table 98

Component	Mandatory	Optional
SAP R/3 4.6C	X	-
EHP1 for SAP EWM 7.0	X	-

## Further Information

The following documents provide more information about these business processes:

Table 99

Content	Location
Process Description	The process description is part of SAP Solution Manager implementation content ST-ICO SP39. For more information about SAP Solution Manager, see <a href="http://service.sap.com/solutionmanager">service.sap.com/solutionmanager</a> .
Configuration Documentation	

## 4.25 Warehouse Outbound Processing with Transportation Planning in ERP

This process allows you to use transportation planning of SAP ERP in the outbound process of Extended Warehouse Management (EWM). The process uses the shipment documents as a basis for carrying out transportation planning. The system converts handling units (HUs) in ERP shipments into transportation unit (TU) activities (and optionally vehicle activities). You can control and monitor the entire transportation process from the planning stage to the goods issue. Transportation planning involves all the activities that must be performed before the shipment leaves the shipping point.

Table 100: This process is used in the following scenarios:

Scenario	Solution/Scenario Group
-	Other Warehouse Management Processes

## Technical System Landscape

The minimal release of the following software components are either mandatory or optional, as indicated below, for the technical implementation of this process.

The following table provides just one way to implement the business process. For other combinations, see SAP Service Marketplace at [service.sap.com/scl](http://service.sap.com/scl).

## Software Units

Table 101

Component	Mandatory	Optional
SAP R/3 4.6C	X	-
EHP1 for SAP EWM 7.0	X	-

For more information about the installation of these components, see [System Landscapes \[page 26\]](#).

## Further Information

The following documents provide more information about this business process:

Table 102

Content	Location
Process Description	The process description is part of SAP Solution Manager implementation content ST-ICO SP39. For more information about SAP Solution Manager, see <a href="https://service.sap.com/solutionmanager">service.sap.com/solutionmanager</a> .
Configuration Documentation	
Test Case	

## 4.26 Warehouse Outbound Processing with Transportation Planning in EWM

This process allows you to use transportation planning of SAP ERP in the outbound process of Extended Warehouse Management (EWM). The system creates shipment documents in SAP ERP on the basis of transportation planning and execution in EWM. The system converts transportation unit (TU) activities (and optionally vehicle activities) in ERP shipments. You can control and monitor the entire transportation process from the planning stage to the goods issue. Transportation planning involves all the activities that must be performed before the shipment leaves the shipping point.

Table 103: This process is used in the following scenarios:

Scenario	Solution/Scenario Group
-	Other Warehouse Management Processes

### Technical System Landscape

The minimal release of the following software components are either mandatory or optional, as indicated below, for the technical implementation of this process.

The following table provides just one way to implement the business process. For other combinations, see SAP Service Marketplace at [service.sap.com/scl](https://service.sap.com/scl).

### Software Units

Table 104

Component	Mandatory	Optional
SAP R/3 4.6C	X	-
EHP1 for SAP EWM 7.0	X	-

For more information about the installation of these components, see [System Landscapes \[page 26\]](#).

## Further Information

The following documents provide more information about this business process:

Table 105

Content	Location
Process Description	The process description is part of SAP Solution Manager implementation content ST-ICO SP39. For more information about SAP Solution Manager, see <a href="http://service.sap.com/solutionmanager">service.sap.com/solutionmanager</a> .
Configuration Documentation	
Test Case	

## 4.27 Inbound Processing and Receipt Confirmation with Warehouse Management in SCM

### Overview

You use this business process for your inbound processing and receipt confirmation with SAP EWM. For this process variant, the logistics process of receiving goods in the warehouse, you must ensure a high degree of variability and flexibility. In the actual implementation, different optional steps can be installed to ensure an efficient and streamlined inbound process.

Whenever a company requires a product to be procured from an external source of supply, the product is delivered according to the official procurement document (a PO) agreed between two business partners. The arrival of the goods is announced by a message from the supplier (ASN). They are delivered in a certain quantity at a defined date and time at a defined company location. For the delivered goods, the system selects an inbound delivery and processes it for putaway. Once the goods are taken into stock, a goods receipt must be posted.

Inbound processing and goods receipts are key steps in any procurement or replenishment process. Using inbound processing in SAP EWM supports specific requirements for receiving goods in warehouses for discrete industries, for example for Service Parts Management.

The inbound process is divided into several process steps which ensure that the physical receiving process is reflected in system activities and documents. The basic concept is to differentiate between planned activities and notifications (for example ASN, inbound delivery notification) and finalized documents after processing (inbound delivery). If Handling Unit (HU) Management for packing is used, you must use it in inbound delivery to pack against.

The inbound process can optionally be supported in a Radio Frequency Identification (RFID) environment with fixed devices. For this purpose, SAP Auto-ID 7.1 must be part of your system landscape.

Table 106: This process is used in the following scenarios:

Scenario	Solution/Scenario Group
Service Order Management with Service Part Procurement	SAP CRM/Enterprise Service
Warehouse & DC Management	SAP for Retail
Service Parts Warehousing	SAP Service and Asset Management
Service Delivery	Cross-Application Implementation Packages/Delivery
Recall Management	SAP CRM/Enterprise Services
Storage and Fulfillment	Cross-Application Implementation Packages/Logistics

## Technical System Landscape

The minimal release of the following software components are either mandatory or optional, as shown in the table below, for the technical implementation of this process.

The following table provides just one way to implement this business process. For other combinations, see [service.sap.com/scl](https://service.sap.com/scl).

## Software Units

Table 107

Component	Mandatory	Optional
SAP ECC 6.0	X	–

For more information about the installation of these components, see [System Landscapes \[page 26\]](#).

## Further Information

The following documents provide more information about this business process:

Table 108

Content	Location
Process Description	The process description is part of SAP Solution Manager implementation content ST-ICO SP39. For more information about SAP Solution Manager, see <a href="https://service.sap.com/solutionmanager">service.sap.com/solutionmanager</a> .
Configuration Documentation	

## 4.28 Processing Inbound with Stock-Specific UoM (Manual GR)

You use this business process to receive goods on pallets from external vendors. Each pallet contains only a single product. The goods on the pallets have a unit of measure (UoM) that represents a smaller package size, for example, cartons containing six items. You are interested in this information because you will handle the product in your warehouse using this UoM. Some vendors send advanced shipping notifications (ASNs) to SAP ERP. You check the goods in the goods receipt area, and post the goods receipt (GR) in SAP Extended Warehouse Management (EWM). Upon GR posting, warehouse orders (WOs) are created. Depending on the product attributes, you move the goods to different areas in the warehouse using the information contained in the printed WOs. You move uncategorized products to a clarification zone before you put them away.

Table 109: This process is used in the following scenarios:

Scenario	Solution/Scenario Group
-	(Generic EWM business process)

### **i** Note

You can fully integrate this business process with the business scenario [Warehouse Management with Preconfigured Processes \[page 34\]](#).

## Technical System Landscape

The minimal release of the following software components are either mandatory or optional, as indicated below, for the technical implementation of this process.

The following table provides just one way to implement the business process. For other combinations, see SAP Service Marketplace at [service.sap.com/scl](http://service.sap.com/scl).

### Software Units

Table 110

Component	Mandatory	Optional
EPH6 for SAP ERP 6.0	X	-
SAP EWM 9.0	X	-

For more information about the installation of these components, see [System Landscapes \[page 26\]](#).

### Further Information

The following documents provide more information about this business process:

Table 111

Content	Location
Process Description	The process description is part of SAP Solution Manager implementation content ST-ICO SP39. For more information about SAP Solution Manager, see <a href="http://service.sap.com/solutionmanager">service.sap.com/solutionmanager</a> .
Configuration Documentation	
Test Case	

## 4.29 Processing Inbound with Stock-Specific UoM (Manual Warehouse Task)

You use this business process to receive goods on pallets from external vendors. Each pallet contains only a single product. The goods on the pallets have a unit of measure (UoM) that represents a smaller package size, for example, cartons containing six items. You are interested in this information because you will handle the product in your warehouse using this UoM. Some vendors send advanced shipping notifications (ASNs) to SAP ERP. You check the goods in the goods receipt area, and post the goods receipt (GR) in SAP Extended Warehouse Management (EWM). Upon GR posting, warehouse orders (WOs) are created. Depending on the product attributes, you move the goods to different areas in the warehouse using the information contained in the printed WOs. You move uncategorized products to a clarification zone before you put them away.

Table 112: This process is used in the following scenarios:

Scenario	Solution/Scenario Group
-	(Generic EWM business process)

### Note

You can fully integrate this business process with the business scenario [Warehouse Management with Preconfigured Processes \[page 34\]](#).

## Technical System Landscape

The minimal release of the following software components are either mandatory or optional, as indicated below, for the technical implementation of this process.

The following table provides just one way to implement the business process. For other combinations, see SAP Service Marketplace at [service.sap.com/scl](http://service.sap.com/scl).

### Software Units

Table 113

Component	Mandatory	Optional
EHP6 for SAP ERP 6.0	X	-
SAP EWM 9.0	X	-

For more information about the installation of these components, see [System Landscapes \[page 26\]](#).

### Further Information

The following documents provide more information about this business process:

Table 114

Content	Location
Process Description	The process description is part of SAP Solution Manager implementation content ST-ICO SP39. For more information about SAP Solution Manager, see <a href="http://service.sap.com/solutionmanager">service.sap.com/solutionmanager</a> .
Configuration Documentation	
Test Case	

## 4.30 Processing Outbound with Stock-Specific UoM

You use this business process to send ordered goods to external customers. In this process, you can send bigger quantities (for example, cartons or pallets) to the customers. Each carton or pallet in your storage bins contains only a single product. The goods on the pallets have a unit of measure (UoM) that represents a smaller package size used within the warehouse, such as cartons of six. Warehouse orders (WOs) are created during outbound delivery order creation and are used to optimize the picking process. Picking consists of a single paper-based step using pick-handling units (HUs) that you ship to the customers. After loading them into a truck you post the goods issue.

Table 115: This process is used in the following scenarios:

Scenario	Solution/Scenario Group
-	(Generic EWM business process)

### **i** Note

You can fully integrate this business process with the business scenario [Warehouse Management with Preconfigured Processes \[page 34\]](#).

## Technical System Landscape

The minimal release of the following software components are either mandatory or optional, as indicated below, for the technical implementation of this process.

The following table provides just one way to implement the business process. For other combinations, see SAP Service Marketplace at [service.sap.com/scl](http://service.sap.com/scl).

### Software Units

Table 116

Component	Mandatory	Optional
EHP for SAP ERP 6.0	X	-
SAP EWM 9.0	X	-

For more information about the installation of these components, see [System Landscapes \[page 26\]](#).

### Further Information

The following documents provide more information about this business process:

Table 117

Content	Location
Process Description	The process description is part of SAP Solution Manager implementation content ST-ICO SP39. For more information about SAP Solution Manager, see <a href="http://service.sap.com/solutionmanager">service.sap.com/solutionmanager</a> .
Configuration Documentation	
Test Case	

## 4.31 Unpacked Inbound Delivery from Vendor (with Manual GR and Automatic WT)

### Overview

In this simple inbound warehouse process, you receive goods from external vendors. A truck arrives and the truck driver brings the delivery note to the goods receipt (GR) office. If the vendor has sent an advanced shipping notification (ASN) to SAP ERP, the GR clerk finds the corresponding inbound delivery in SAP Extended Warehouse Management (EWM). If no inbound delivery yet exists in the system, the GR clerk creates an inbound delivery with or without reference to the purchasing document in EWM. The truck driver drives the truck to the door assigned by the GR clerk. The warehouse clerk unloads the truck. The warehouse clerk checks the goods against the delivery note and takes it with annotations to the GR office. The GR clerk posts the goods receipt in EWM, which creates and prints warehouse orders (WOs) with reference to the inbound delivery to move the goods into the warehouse. The truck leaves. The warehouse clerk moves the goods from the GR area into the warehouse. For example, they are moved to two different storage types: a storage type for small parts and a storage type for large parts. The storage type for small parts is divided into two storage sections: one for slow-moving items and one for fast-moving items. In the storage type for small parts, the next empty storage bin is determined as the destination storage bin. In the storage type for large parts, fixed storage bins are used. Products that have not yet been categorized as small or large parts or that have no fixed bin assignment are first moved into a separate storage type for clarification. When the goods are in the destination storage bins, the warehouse clerk confirms the putaway WO using a desktop transaction in EWM.

Table 118: This process is used in the following scenarios:

Scenario	Solution/Scenario Group
-	(Generic EWM business process)

### Technical System Landscape

The minimal release of the following software components are either mandatory or optional, as shown in the table below, for the technical implementation of this process.

The following table provides just one way to implement this business process. For other combinations, see [service.sap.com/scl](http://service.sap.com/scl).

### Software Units

Table 119

Component	Mandatory	Optional
SAP ERP 6.0	X	-
SAP EWM 7.0	X	-

For more information about the installation of these components, see [System Landscapes \[page 26\]](#).

### Further Information

The following documents provide more information about this business process:

Table 120

Content	Location
Process Description	The process description is part of SAP Solution Manager implementation content ST-ICO SP39. For more information about SAP Solution Manager, see <a href="http://service.sap.com/solutionmanager">service.sap.com/solutionmanager</a> .
Configuration Documentation	

## 4.32 Unpacked Inbound Delivery from Vendor (with Manual WT and Automatic GR)

### Overview

In this simple inbound warehouse process, you receive goods from external vendors. A truck arrives and the truck driver brings the delivery note to the goods receipt (GR) office. If the vendor has sent an advanced shipping notification (ASN) to SAP ERP, the GR clerk finds the corresponding inbound delivery in SAP Extended Warehouse Management (EWM). If no inbound delivery yet exists in the system, the GR clerk creates an inbound delivery with or without reference to the purchasing document in EWM. The truck driver drives the truck to the door assigned by the GR clerk. The warehouse clerk unloads the truck. The warehouse clerk checks the goods against the delivery note and takes it with annotations to the GR office. The GR clerk creates warehouse tasks (WTs) in EWM, which creates and prints warehouse orders (WOs) with reference to the inbound delivery to move the goods into the warehouse. The truck leaves. The warehouse clerk moves the goods from the GR area into the warehouse. For example, they are moved to two different storage types: a storage type for small parts and a storage type for large parts. The storage type for small parts is divided into two storage sections: one for slow-moving items and one for fast-moving items. In the storage type for small parts, the next empty storage bin is determined as the destination

storage bin. In the storage type for large parts, fixed storage bins are used. Products that have not yet been categorized as small or large parts or that have no fixed bin assignment are first moved into a separate storage type for clarification. When the goods are in the destination storage bins, the warehouse clerk confirms the putaway WOs using a desktop transaction in EWM. Upon confirmation of the putaway WOs, the system automatically posts the goods receipt.

Table 121: This process is used in the following scenarios:

Scenario	Solution/Scenario Group
-	(Generic EWM business process)

## Technical System Landscape

The minimal release of the following software components are either mandatory or optional, as shown in the table below, for the technical implementation of this process.

The following table provides just one way to implement this business process. For other combinations, see [service.sap.com/scl](http://service.sap.com/scl).

## Software Units

Table 122

Component	Mandatory	Optional
SAP ECC 6.0	X	-
SAP EWM 7.0	X	-

For more information about the installation of these components, see [System Landscapes \[page 26\]](#).

## Further Information

The following documents provide more information about this business process:

Table 123

Content	Location
Process Description	The process description is part of SAP Solution Manager implementation content ST-ICO SP39. For more information about SAP Solution Manager, see <a href="http://service.sap.com/solutionmanager">service.sap.com/solutionmanager</a> .
Configuration Documentation	

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## 5 Solution-Wide Topics

- For more information about the Upgrade Roadmap that provides methodologies for planning and executing an upgrade project, see SAP Solution Manager. For more information about SAP Solution Manager, see SAP Service Marketplace at [service.sap.com/solutionmanager](http://service.sap.com/solutionmanager).
- For more information about shared services that are provided by SAP NetWeaver and are required to run a system landscape, such as Solution Manager, System Landscape Directory, and Software Lifecycle Manager, see the current Master Guide and Upgrade Master Guide for SAP NetWeaver on SAP Service Marketplace at [service.sap.com/installnw70](http://service.sap.com/installnw70) and [service.sap.com/upgradenw70](http://service.sap.com/upgradenw70).

### 5.1 SAP Solution Manager

We strongly recommend the SAP Solution Manager platform to efficiently support the implementation of your solution. Using SAP Solution Manager significantly accelerates the implementation process and helps you to achieve your business goals. At the same time, SAP can deliver Support Services based on the business scenarios designed and documented in SAP Solution Manager. Implementation content for your solution may further accelerate the implementation process.

For information about the availability of content specifically tailored to your solution, see SAP Service Marketplace at [service.sap.com/solutionmanager](http://service.sap.com/solutionmanager).

### 5.2 Service-Oriented Architecture (SOA)

SAP's 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 which 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 SAP Business Suite 7.

#### 5.2.1 Service Enablement

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

- **SAP Business Suite 7**  
Enterprise services are an integral part of the software components of the SAP Business Suite applications. Enterprise services are the technical interfaces to the functionality available in the business 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.

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

### **i** Note

Starting with SAP NetWeaver Process Integration (PI) 7.3, SAP provides a new installation option Advanced Adapter Engine Extended (AEX). Since AEX is based on AS Java alone, it is easier to install and maintain as well as it needs less memory and data storage. Therefore, AEX is a cost-saving option compared to a full installation of SAP NetWeaver PI. For more information about the AEX, see the SAP Library at: [▶ help.sap.com/nw73 ▶ SAP NetWeaver 7.3 Library English ▶ SAP NetWeaver Process Integration ▶ Concepts ▶ Installation and Connectivity Options ▶ Advanced Adapter Engine Extended ▶](#) and SAP Note [1573180](#).

### **i** Note

Asynchronous services that are enabled for *Web Services Reliable Messaging (WS-RM)* can be called in a point-to-point communication scenario. Otherwise asynchronous services can only be consumed in a mediated scenario.

- **Enterprise Services Repository**

The Enterprise Services Repository (ES Repository) is the central repository that contains the definition of all enterprise services and models. The ES Repository is shipped with SAP NetWeaver PI and with SAP NetWeaver Composition Environment (CE) starting with SAP NetWeaver PI 7.1 and with SAP NetWeaver CE 7.1. 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 7.0x landscape you will require the Integration Repository to create and enhance enterprise service definitions in a design time environment.

- **Services Registry**

The Services Registry is shipped with SAP NetWeaver PI and SAP NetWeaver CE starting with SAP NetWeaver PI 7.1 and SAP NetWeaver CE 7.1. The Service Registry 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 EHP 1**

The Solution Composer, shipped with SAP Solution Manager 7.0 EHP 1 SP 23, is required to host the enterprise service online documentation.

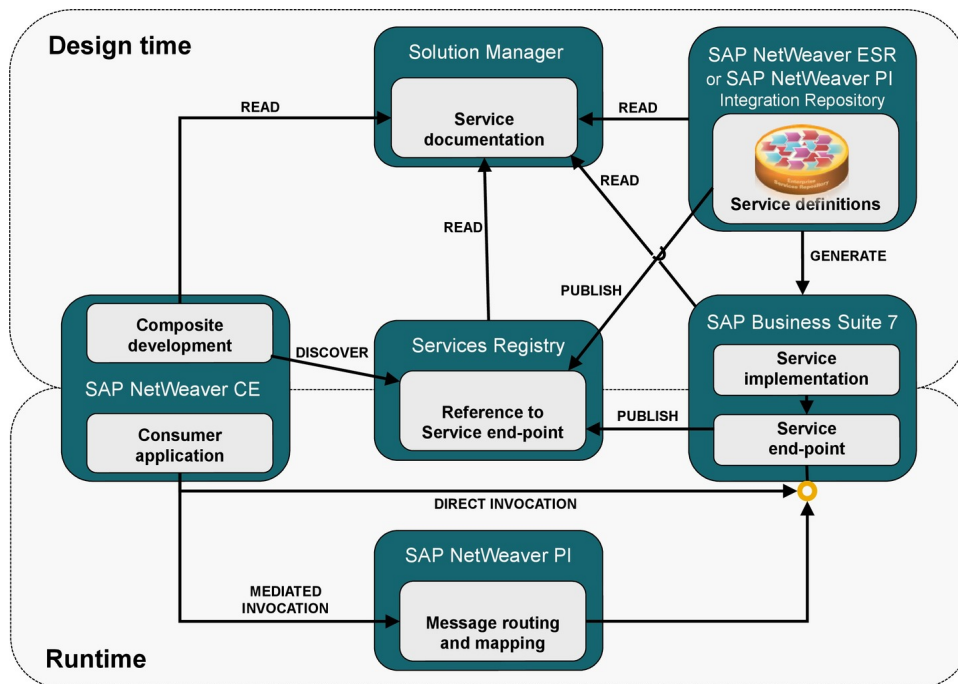


Figure 4: Overview: SAP's Applications for SOA Enablement

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

Table 124

	SAP Applications					
	SAP Business Suite	SAP NetWeaver PI 7.0x (Integration Repository)	SAP NetWeaver PI 7.1 or higher (ES Repository)	SAP NetWeaver CE 7.1 or higher (ES Repository)	SAP Solution Manager 7.0 EHP1 or higher (Solution Composer)	SAP NetWeaver 7.1 or higher Services Registry
<b>Runtime Usage:</b>						
Enterprise Service Provisioning	Required					Optional
Process integration and mediated communication		One option required				
<b>Design Time Usage:</b>						
Create and enhance enterprise service definitions	Required	One option required			Recommended	

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 end-points					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:

- the software component version with which the service was shipped
- the business function(s) required to be activated

- **Identification of technical usages** (relevant for SAP ERP only)

SAP Note [1818596](#) 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** (relevant for SAP ERP only)

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.

- **Import of ESR Content (aka XI Content)** (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 SAP NetWeaver PI 7.0 or higher. Unpack the ZIP file and copy the tpz files corresponding to your SAP NetWeaver PI version into the import directory of your Integration Repository (for SAP NetWeaver PI 7.0x) or Enterprise Services Repository (for SAP NetWeaver ES Repository 7.1 or higher). Use the import function to

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import the content files into the corresponding repository (Integration Repository or Enterprise Services Repository). (Choose ► *Tools* ► *Import Design Objects* ►)

- **Services Registry** (optional)

The services registry is shipped starting with SAP NetWeaver PI 7.1 and CE 7.1. You must configure 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 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:

- SCN Community in the SAP Network at [scn.sap.com/community/soa](http://scn.sap.com/community/soa) (registration required)
- SAP Note [1359215](#): Technical prerequisites for using enterprise services (relevant for *ERP* only)
- SAP note [838402](#): Problems with non-Unicode system landscapes

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