

ALM213

SAP Enhancement Package Installation – Made Easy

Landscape Aware Lifecycle Management
for SAP Business Suite



Willi Petri, TIP CORE LM Mgmt., SAP AG
Peter Schreiber, TIP CORE LM Mgmt., SAP AG

August 2010



Disclaimer



This presentation outlines our general product direction and should not be relied on in making a purchase decision. This presentation is not subject to your license agreement or any other agreement with SAP. SAP has no obligation to pursue any course of business outlined in this presentation or to develop or release any functionality mentioned in this presentation. This presentation and SAP's strategy and possible future developments are subject to change and may be changed by SAP at any time for any reason without notice. This document is provided without a warranty of any kind, either express or implied, including but not limited to, the implied warranties of merchantability, fitness for a particular purpose, or non-infringement. SAP assumes no responsibility for errors or omissions in this document, except if such damages were caused by SAP intentionally or grossly negligent.

Agenda



SAP

1. Motivation and Goal of this Session
2. Demo: Software Update Processes in a Business Suite Landscape with Hub Deployment
 - Variant: Business Driven Updates
 - Variant: Technology Driven Updates
3. Enhancement Package Implementation using SAPehpi

© 2010 SAP AG. All rights reserved. / Page 3

1. Motivation and Goal of this session

SAP



After completing this session, you are able to



Outline the idea of the E2E process for SAP enhancement package installations



Maintain landscape pattern and configure system landscape data



Demonstrate business driven and technology driven update processes in a SAP Business Suite landscape with hub usage



Implement enhancement package using SAPehpi

© 2010 SAP AG. All rights reserved. / Page 4

Enhancement Packages = Innovation + Stability

Enhancement Packages reduce conflict between stability and innovation



INNOVATION

- Fast and easy introduction of business innovation at any time when needed



ENHANCEMENT PACKAGES = INNOVATION + STABILITY

- Enable IT to continuously provide new functionality: Installation of enhancement packages as part of routine maintenance
- Selective, non-disruptive activation of innovation at any time - driven by business needs

STABILITY

- Stable and robust business processes for maximum efficiency and low TCO
- Routine deployment of support packages to sustain compliance

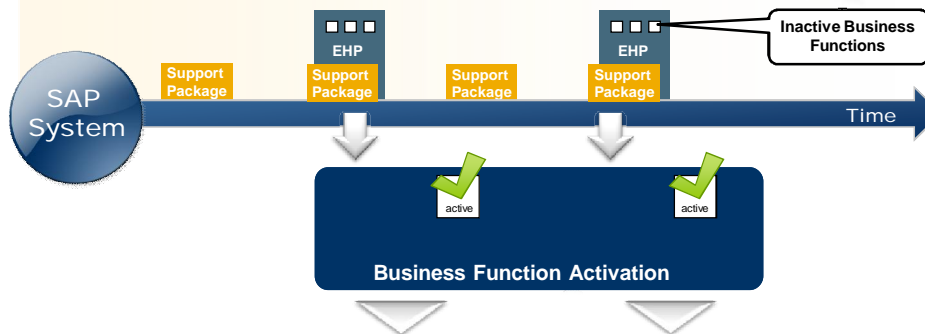
©2010 SAP AG. All rights reserved. / Page 5

How is it possible?

Installation With Regular Maintenance + Selective Activation Of Innovation



1. Always install parts of SAP enhancement packages combined with Support Pack Stack as a maintenance activity with minor additional effort and facilitated by the new EHP Installer tool.



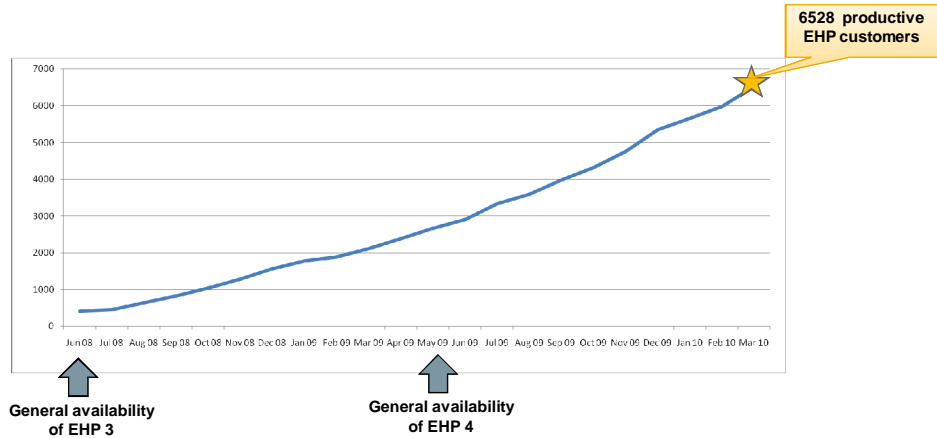
2. Select and activate the functionality needed by your business using the Switch Framework. Functionality your business does not need will remain dormant.



©2010 SAP AG. All rights reserved. / Page 6

Growth Of Productive SAP Enhancement Package Customers

SAP

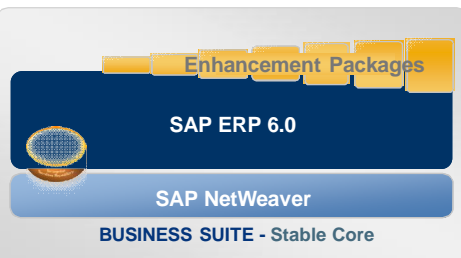


4000+ new productive EHP customers within the last 12 months!

©2010 SAP AG. All rights reserved. / Page 7

Key Take Aways

SAP



What Are Enhancement Packages?

- Optionally installed and activated software innovations for SAP ERP 6.0
- Software innovations include UI simplifications, functional enhancements and Enterprise services
- SAP enhancement packages are built on top of each other
- Enhancement packages are not support packages: Support Packages contain corrections and legal changes

Quick Facts

Preamble: SAP enhancement packages are shipped as a delta shipment to SAP ERP 6.0

1. Selective Installation:

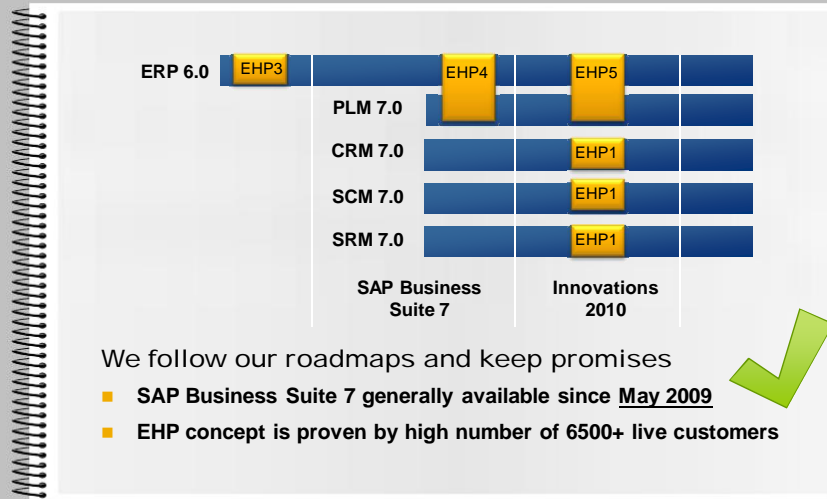
- Each enhancement package contains new versions of existing software components
- You only update software components, which are related to the functionality you want to use.
- After installation:
 - No UI or process change until a Business Function is activated (ABAP)
 - One common regression test for both, SP and enhancement package

2. Selective Activation

- New functionality must be explicitly switched on to become active in the system (EHP5: ~600 Business Functions).
- If activated:
 - Changes are predictable, only well described changes in the activated areas.
 - Testing is simplified with templates, provided for every Business Function



SAP Enhancement Packages Roadmap



©2010 SAP AG. All rights reserved. / Page 9

Things You Should Know Before Installing SAP Enhancement Packages

EHP Facts

- Only one EHP Level per system
One application system can only consist of one EHP level (e.g. EHP4 or EHP5). Hence installed EHP components have to be updated with every future EHP implementation.
- Industry Solutions
Customers who have activated an industry business function set have to include the corresponding EHP industry software component during installation.
- EHP Installation and functional activation is partially non-reversible

Technical Delivery

- EHPs are "cumulative"
When installing the latest EHP you will automatically get all functionality delivered with previous Enhancement Packs.
- Technically the EHP installation delivers only changed objects to your system (delta Shipment):
 - In case you have already installed EHP4 you will only install the new objects of EHP 5.
 - In case you have installed EHP 3 you will install EHP 4 and EHP 5 objects in one step
- Enhancement Package 2 for SAP NetWeaver 7.0 available

Project Perspective

- Modification Adjustment
After installing Enhancement Packages modifications must be adjusted – even if no business function has been activated.
- Regression Test required
The installation of an SAP Enhancement Package requires a full regression test – even if no business function has been activated.
- Effort Estimation
Most customers say that the installation effort is a bit higher with EHP's (without activating business functions) compared to pure Support Package updates.

What has happened so far...

Customer experiences with technical EHP Implementation

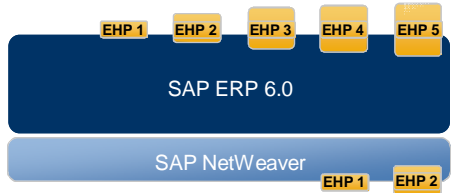


Technical Implementation - SAP enhancement package 1 to 3:

Copy SAP Enhancement Packages from DVD, unpack and store in EPS Inbox

Start Transaction SAINT, import AP Enhancement Packages

- Pro:**
simple, low resource consumption
- Cons:**
runtime/downtime scales with size and number of software packages, the system's context and sw dependencies are unknown



- Increasing number of Business Functions per EHP level
 → increasing size of packages
 → increasing options (Technical Usages)
- Findings:**
 → manually selecting the corresponding software archives is error prone and in case of inconsistencies difficult to support
 → installation time exceeds customer expectations

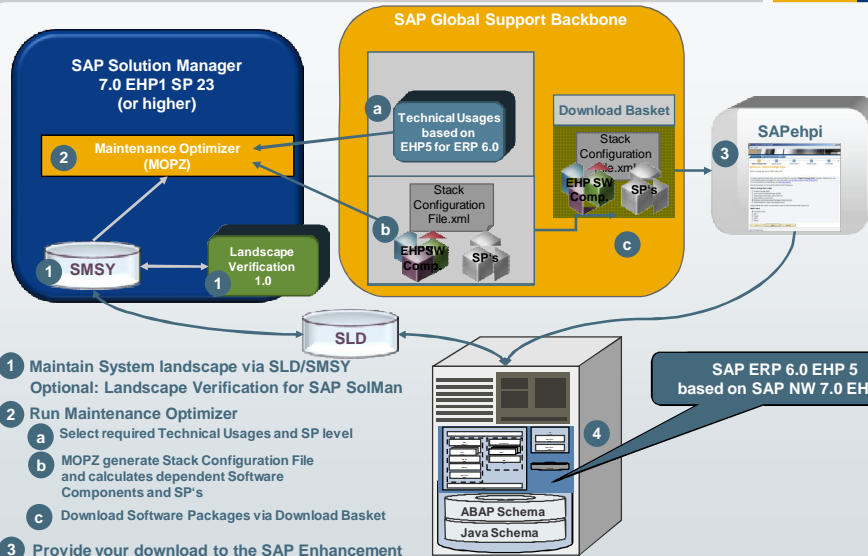
Technical Implementation - SAP enhancement package 4 and 5 (incl. NW EPH 1 & 2), CRM/SCM/SRM EHP1



- Pro:**
downtime reduction, risk minimization, landscape aware, easy remote support
- Cons:**
increased complexity of process, higher resource consumption

© 2010 SAP AG. All rights reserved. / Page 11

E2E process for Enhancement Package Installation – an overview –

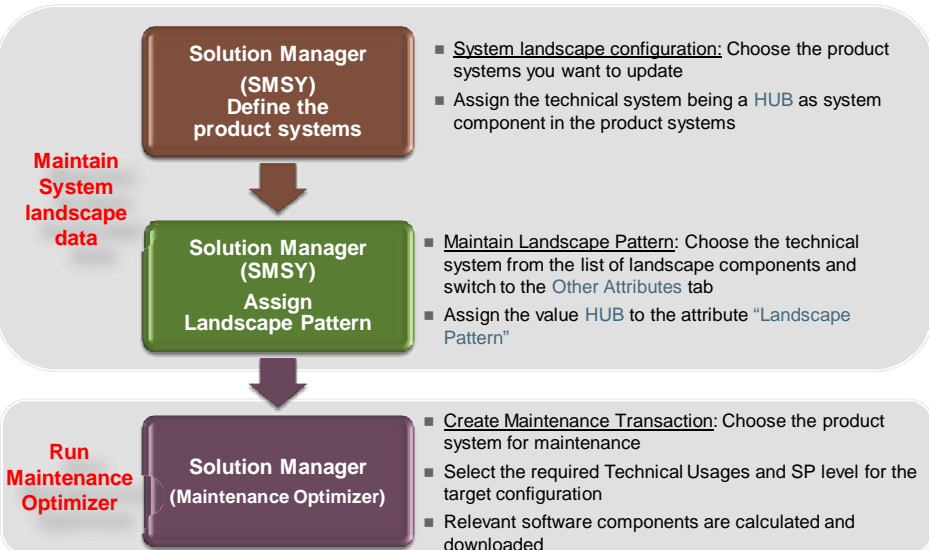


- 1 Maintain System landscape via SLD/SMSY
Optional: Landscape Verification for SAP SolMan
- 2 Run Maintenance Optimizer
 - a Select required Technical Usages and SP level
 - b MOPZ generate Stack Configuration File and calculates dependent Software Components and SP's
 - c Download Software Packages via Download Basket
- 3 Provide your download to the SAP Enhancement Package Installer
- 4 Perform the SAP Enhancement Package Implementation

© 2010 SAP AG. All rights reserved. / Page 12

E2E process for Enhancement Package Installation

– Steps focused in the demos –



© 2010 SAP AG. All rights reserved. / Page 13

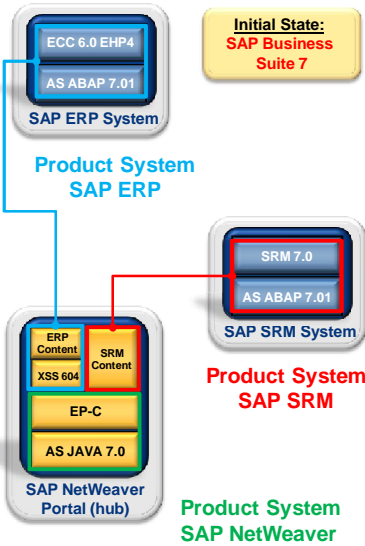
Agenda



1. Motivation and Goal of this Session
2. **Demo: Software Update Processes in a Business Suite Landscape with Hub Deployment**
 - **Variant: Business Driven Updates**
 - **Variant: Technology Driven Updates**
3. Enhancement Package Implementation using SAPehpi

© 2010 SAP AG. All rights reserved. / Page 14

System landscape configuration: Business Suite Landscapes with Hub Deployment



Initial State:

- SAP Business Suite 7 Landscape with SAP NetWeaver Portal 7.0 as a Hub
- The system landscape consists of **three product systems**:
 - **SAP ERP product system**
 - ERP EHP4 ABAP Backend
 - ERP EHP4 Java applications on the SAP NetWeaver Portal
 - **SAP SRM product system**
 - SRM 7.0 ABAP Backend
 - SRM 7.0 Java applications on the SAP NetWeaver Portal
 - **SAP NetWeaver product system**
 - SAP NetWeaver Portal 7.0

© 2010 SAP AG. All rights reserved. / Page 15

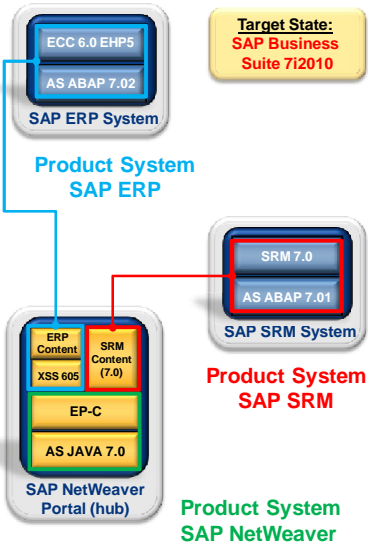


DEMO 1: System landscape configuration

- Maintain three product systems for SAP ERP, SAP SRM and SAP NetWeaver having the NetWeaver Portal 7.0 assigned as a HUB component



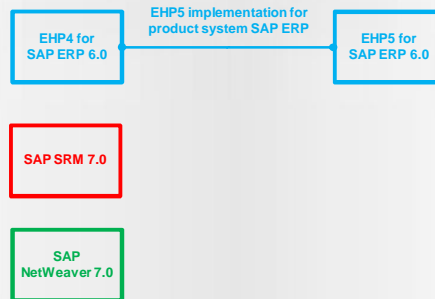
Business driven update process:
in a Business Suite Landscape with Hub Deployment



a) Variant: Business Driven Updates:

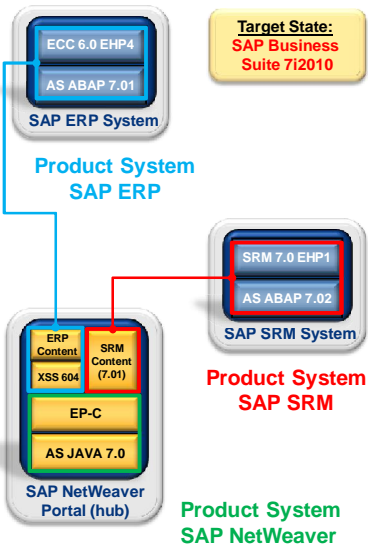
- Update triggered by the need for new functionality from the Business Suite application
- Implementing new Enhancement Packages for the SAP Business Suite
- No new NetWeaver functionality in the NetWeaver Portal hub required

Update Path:



© 2010 SAP AG. All rights reserved. / Page 17

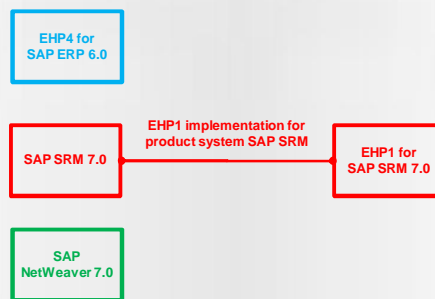
Business driven update process:
in a Business Suite Landscape with Hub Deployment



a) Variant: Business Driven Updates:

- Update triggered by the need for new functionality from the Business Suite application
- Implementing new Enhancement Packages for the SAP Business Suite
- No new NetWeaver functionality in the NetWeaver Portal hub required

Update Path:



© 2010 SAP AG. All rights reserved. / Page 18




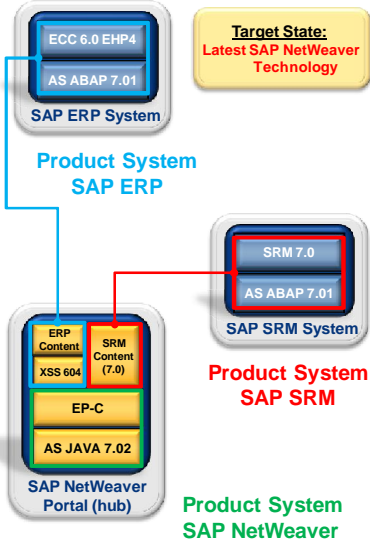
DEMO 2: Business driven update process

- MOPZ Maintenance Transaction for EHP5 for SAP ERP 6.0 implementation



Technology driven update process: in a Business Suite Landscape with Hub Deployment





Product System SAP ERP

Product System SAP SRM

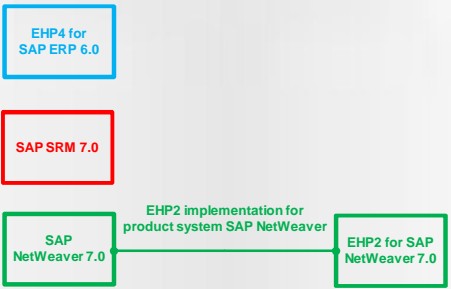
Product System SAP NetWeaver

Target State: Latest SAP NetWeaver Technology

b) Variant: Technology Driven Update:

- Update triggered by the need for new functionality from NetWeaver Portal
- Implementing new Enhancement Packages for SAP NetWeaver
- No update of Business Suite application component on the NetWeaver Portal required

Update Paths:



© 2010 SAP AG. All rights reserved. / Page 20




DEMO 3: Technology driven update process

- MOPZ Maintenance Transaction for EHP2 for SAP Netweaver 7.0 implementation



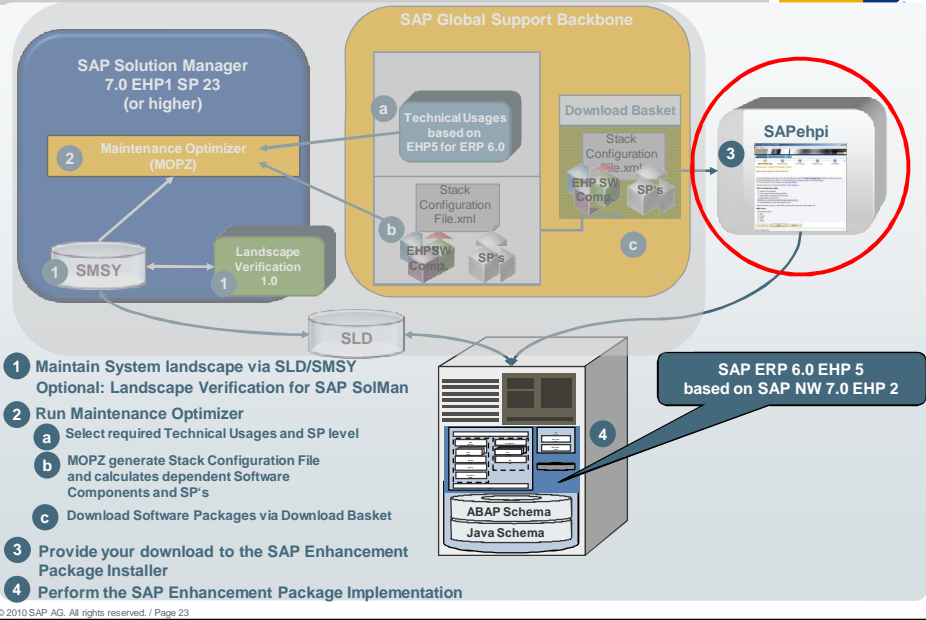
Agenda



1. Motivation and Goal of this Session
2. Demo: Software Update Processes in a Business Suite Landscape with Hub Deployment
 - Variant: Business Driven Updates
 - Variant: Technology Driven Updates
3. **Enhancement Package Implementation using SAPehpi**

© 2010 SAP AG. All rights reserved. / Page 22

E2E process for Enhancement Package Installation – an overview –



Enhancement Package Installation Tool: SAP Enhancement Package Installer



QUICK FACTS

EHP Installer: Standard tool to implement SAP enhancement packages

Technology: System Switch Procedure

Available for:

- All 64-bit platforms for ABAP, Java and Dual-Stack
- SAP enhancement package 4 for SAP ERP 6.0
- SAP enhancement package 1 SAP NetWeaver 7.0
- SAP enhancement Package 1 for SAP Process Integration 7.1

New Installation tool



RELIABLE & INTUITIVE

- Mature, stable and optimized system switch procedure
- Improved user experience due to intuitive guided procedure

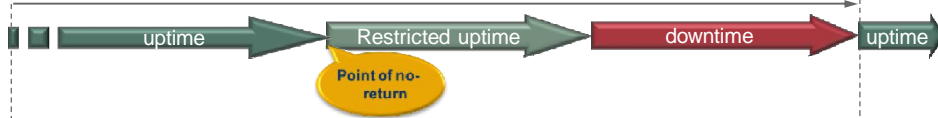
MINIMIZED DOWNTIME

- Downtime reduction by 60-80% (compared to SAINT)
- Risk mitigation due to isolated shadow system

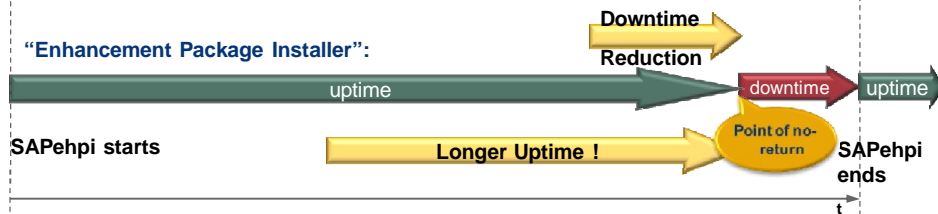
Downtime Reduction and Risk Minimization with SAPehpi in relation to SAINT



SAINT: Standard SP deployment:



"Enhancement Package Installer":



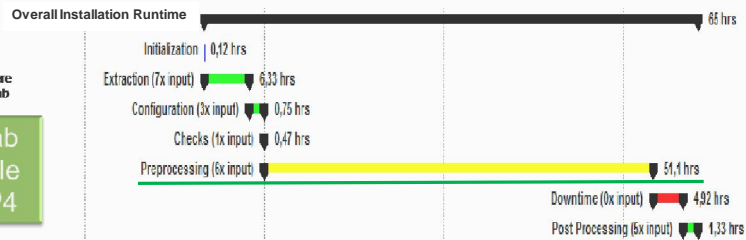
© 2010 SAP AG. All rights reserved. / Page 25

Ongoing SAP TCO Lab REFA measurements of Enhancement Package installation process



As-is view
actions as they were performed in the lab

SAP Lab
Example
w/ EHP4



Identified Focus points for optimizing the implementation process:

- Reduction of overall runtime → approx. – 50% w/ BS7i2010
- Downtime Optimization (TabimpPost, AIMS, Export DVDs, ...) → approx. - 10-20% w/ BS7i2010
- Runtime of Roadmap Step 'Pre-Processing' and early lock of design time → Nov. 2009
- Minimization of Resource Consumption (i.e. during system cloning, Pre-Configuration Modes → implemented in Nov. 2009)
- Usability improvements / simplification of Dialog screens → Nov. 2009 & BS7i2010
- Automation, Alerting/notification → BS7i2010

© 2010 SAP AG. All rights reserved. / Page 26

SAP Enhancement Package Installation Tool

optimized Tool Versions delivered in Nov. '09, next Version will come with SAP Business Suite 7 i2010



QUICK FACTS

EHP Installer: Standard tool to implement SAP enhancement packages

Technology: System Switch Procedure

Available for:

- All 32-bit and 64-bit platform for ABAP, Java and Dual-Stack
- SAP enhancement package 4 [5¹⁾] for SAP ERP 6.0, [EHP1 for SAP CRM, SRM, SCM ¹⁾]
- SAP enhancement package 1 [2¹⁾] for SAP NetWeaver 7.0
- SAP enhancement Package 1 for SAP Process Integration 7.1
- Support Packages for ABAP-only systems [Dual Stack¹⁾]



New Features & Improvements

Manageability and usability

- Password protection
- Observer Mode
- Automatic trouble ticket creation functionality
- compliance to Accessibility standards

Stability & Robustness

- Check consistency of stack.xml

Runtime Reduction

- Improved cloning procedure
 - Health Check functionality
 - Parallelize update statistics
- #### Downtime Reduction
- Support package stack only installation
 - Improvements of After Import Methods
 - Optimized preconfiguration modes



© 2010 SAP AG. All rights reserved. / Page 27

Runtime & Downtime Statistics

based on Customer Feedback & Lab Measurements within Q1/2007 – Q2/2010



Tool	Start release	Target release	Avg. Runtime [hours]	Avg. Downtime [hours]
SAPUP	R/3 4.6x	6.00	17-30	5-6
		6.03	34-45	6-15
		6.04	31-52	7-16
	R/3 Enterprise 4.7	6.00	22-38	4-7
		6.03	20-58	5-16
		6.04	26-46	8-16
		6.05	10 (TCO LAB measurements)	3 (TCO LAB measurements)
	ERP 2004	6.00	26-44	5-12
		6.03	30-45	5-8
6.04		36-48	8-10	
SAPEHP1	ERP 6.00	6.03	29-44	6-14
		6.04	29-48 (27 @ TCO Lab)	5-9 (5 @ TCO Lab)
		6.05	27 (TCO LAB measurements)	4 (TCO LAB measurements)
	ERP 6.04	6.05	23 (TCO LAB measurements)	3 (TCO LAB measurements)
SPAM	ERP 6.0	Downtime is almost equal to runtime	~ 3 min per SP ; # SPs per SP Stack ~60; → 1 ERP 6.0 SP Stack ~ 3 h, typical: 3 SP stack level ~ 9 h downtime	
EHP1 for SP stacks	ERP 6.0	8-10	~ 100-150 SPs / h, Downtime in avg. 1-3h	

© 2010 SAP AG. All rights reserved. / Page 28

Key improvements of SAPehpi

Performance

- **Support Package Implementation with SAPehpi:** When applying a large number of Support Packages the downtime is significantly reduced compared to the Support Package Stack update with the Support Package Manager (SPAM) and Java Support Package Manager (JSPM)
- **Significant Runtime Reduction of SAPehpi:**
 - **Improved cloning procedure:** Reduction of the cloning procedure of client-dependent tables of client 000 and improved parallelization to up to 9 batch processes, side effect is the reduction of required database free space
 - **Health Check Functionality:** consistency check of system, provides a list of SAPNotes which are missing in the system to perform the installation via SAPehpi
 - **Parallelize update statistics of DB after system cloning:** → faster procedure
- **Significant Downtime Reduction of SAPehpi:**
 - **Improvements of After Import Methods (AIM's):** Review of AIM's will save ~50% *of downtime for EHP5 implementation
 - **Parallelize external table conversion (Phase PARMVNT_XCNV):** → faster procedure

Security

- **Password protected logon to installation GUI:** To avoid unauthorized access to the enhancement package installation process, the logon to the installation GUI is password protected
- **Handling of Secure Store and Forward (SSF) parameter in the upgrade:** This step is necessary due to legal reasons. The Cryptolib cannot be shipped and have to be downloaded separately. The upgrade tool will identify, if the old system has the SAP Cryptolib installed. If it's already installed no further user action is required

© 2010 SAP AG. All rights reserved. / Page 29

Key improvements of SAPehpi

Usability

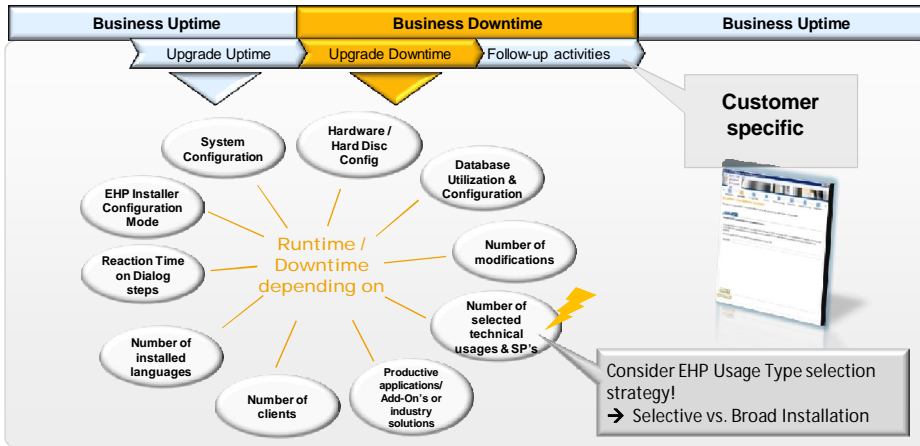
- **Observer Mode:** Enable additional authorized people to have read-only access to the update/upgrade tools and if necessary take over the control to perform the update/upgrade procedure
- **Alerting Functionality:** Enable authorized people to get informed via sms or e-mail as soon as the update/upgrade procedure requires action or input.
- **GUI reconnect:** The GUI reconnects automatically to the SL controller without the need to restart the SL controller. This is necessary if the connection between Upgrade GUI and SL controller was broken.
- **SAPhost agent update:** Follows now an automated approach, reduces user effort
- **Modification adjustment transports:** The enhancement package installer offers to choose between different adjustment transports or to enter your own transport request.
- **Accessibility mode:** The enhancement package installer can run in accessibility mode.
- **Optimized pre-configuration modes:** The preconfiguration modes "standard resource use" and "high resource use" have been optimized regarding the use of available system resources.
- **Automatic deployment of new spam version:** If there is a new spam version available in the download area, the SAPehpi will automatically deploy the new version.

Stability & Robustness

- **Check consistency of stack.xml in ABAP SL Tools:** Now done in earlier phase of the procedure, during Roadmap Step Extraction.
- **Support of SAP Add-Ons:** Installed Add-On product versions on the source system are identified and handled by Maintenance Optimizer (MOPZ). Additional Add-Ons can be included to the target stack also. → Less manual work in SAPehpi.

© 2010 SAP AG. All rights reserved. / Page 30

Overview of Factors affecting Upgrade/EHP Tool Runtime & Downtime



Key Take Aways

- As each system is highly individual regarding its configuration and application data.
- A forecast of runtime and downtime is only possible when analyzing results of an upgrade test run with representative set of data ! -> SAP Downtime Minimization Service can assist you here!

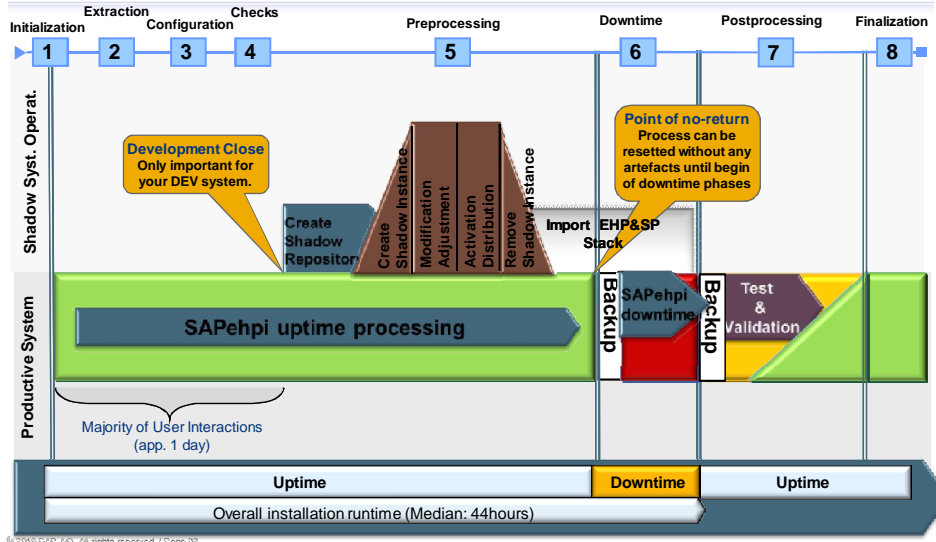
© 2010 SAP AG. All rights reserved. / Page 31

SAP Enhancement Package Installer - Timing Diagram



SAP NetWeaver

SOFTWARE DELIVERY TOOL



© 2010 SAP AG. All rights reserved. / Page 32

Procedure: Start SAP Enhancement Package Installer



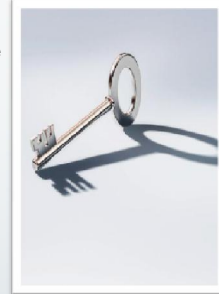
Start SAP Enhancement Package Installer

- Download the executable from the SAP Service Marketplace
- Unpack and execute the installer via SAPCAR

The screenshot shows a Windows Explorer window displaying a directory structure with files: SAPehpi700_0.info (1 KB, INFO File), SAPehpi700_INT_0.info (1 KB, INFO File), SAPehpi700_0.SAR (71,600 KB, SAR File), and SAPehpi700_INT_0.SAR (148,758 KB, SAR File). Below the Explorer is a Command Prompt window with the following text:

```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows [Version 5.2.3790]
(C) Copyright 1985-2003 Microsoft Corp.
C:\Documents and Settings\n36adm>D:
D:\>SAPCAR -xof D:\usr\sap\M36\EhPI\SAPehpi700_INT_0.SAR -R D:\_
```

Below the Command Prompt is another Windows Explorer window showing a directory with folders (abap, java, jvm, sdt) and files (VERSTAMP, STARTUP.BAT, vcrcdist_x64). The STARTUP.BAT file is circled in red, and its context menu is open, showing options like Open, Edit, Print, Notepad, and Scan with Sophos Anti-Virus.



© 2010 SAP AG. All rights reserved. / Page 33

Procedure: Start SAP Enhancement Package Installer



Start SAP Enhancement Package Installer

- Start SAP Enhancement Package Installer front-end

The screenshot shows a Remote Desktop session with a Microsoft Internet Explorer browser displaying the SAP EHP Installer front-end. The browser address bar shows the URL: http://wdf4345-4236. The page content includes the SAP logo and the title "SAP EHP Installer". Below the title, there are several links:

- Manual: This is a link to the manual in SAP Service Marketplace.
- Start EHP Installer Frontend (SCT/Gui): This link is circled in red.
- ABAP documentation: This link leads to the ABAP EHP1 documentation page. This is only valid after the ABAP part of the Installer has started - provided that there is an ABAP system at all.
- JAVA EE Enhancement Package Installation evaluation: This link leads to the JAVA EE EHP1 documentation page. This is only valid after the JAVA EE part of the Installer has started - provided that there is an JAVA EE system at all.



© 2010 SAP AG. All rights reserved. / Page 34

Procedure: Start SAP Enhancement Package Installer - Log on



Log on Screen

- Only one person can perform the EHP installation → Administrator Role
- Additional persons can observe the EHP installation → Observer Role (read-only)
- If necessary one observer can take over the Administrator Role
→ Change role during the workflow



© 2010 SAP AG. All rights reserved. / Page 35

Procedure: Start SAP Enhancement Package Installer - Initialization



1 Roadmap step 1 - Initialization

- Only the Monitor tab is shown
- To initialize the process, press Next



© 2010 SAP AG. All rights reserved. / Page 36

Procedure: Start SAP Enhancement Package Installer - Initialization



1 Roadmap step 1 - Initialization



- Step completed
- AS ABAP identified



The screenshot shows the SAP NetWeaver Software Delivery Tool interface. At the top, it says 'SAP NetWeaver SOFTWARE DELIVERY TOOL'. Below that is a progress bar with steps: 1 Initialization, 2 Extraction, 3 Configuration, 4 Checks, 5 Preprocessing, 6 Downtime, 7 Postprocessing, 8 Finalization. Step 1 is highlighted. Under 'Initialization - System Analysis', there is a 'Monitor' tab for 'ABAP'. A progress bar shows 100% completion with the status 'COMPLETED'. At the bottom, the 'Next' button is circled in red.

Procedure: Start SAP Enhancement Package Installer - Extraction



2 Roadmap step 2 - Extraction



- Keyword
- Download Directory



The screenshot shows the SAP NetWeaver Software Delivery Tool interface. The progress bar now shows step 2 'Extraction' highlighted. Under 'Extraction - Initial Software Extraction', there is a 'Monitor' tab for 'ABAP'. The text says 'Welcome to the SAP Enhancement Pack Installation Program'. Below that, there is a 'KEYWORD' field and a 'DOWNLOAD DIRECTORY' field, both circled in red. There are 'Continue' and 'Cancel' buttons at the bottom.

Procedure: Start SAP Enhancement Package Installer - Extraction



2 Roadmap step 2 - Extraction

- Add passwords



Required system passwords

Password for user DDIC
Enter the password for SAP user DDIC in client 000:
DDIC PASSWORD *****

OS specific password
Enter the password for the operating system account:ISAPserviceDEV:
OS PASSWORD *****

DB specific password
Enter the password for the ORACLE user 'SYSTEM'
DB PASSWORD *****

Buttons: Continue, Cancel, Back, Next

Procedure: Start SAP Enhancement Package Installer - Extraction



2 Roadmap step 2 - Extraction

- Missing Tool Notes have to be implemented via transaction SNOTE



Missing tool NOTES

The notes listed below contain corrections that are essential for the notes to be implemented.

Use the Note Assistant to download the following notes as "cannot be implemented" or "obsolete" by the Note Assistant.

Note	Description
0001158860	
000126384	
0001321756	
0001113869	
0001263115	
0001247451	
0001399993	
0001399760	
0001224811	
0001051053	
0001168990	
0001250481	

Note Assistant: Worklist for User DEVELOPER1

SAP Notes

- Inconsistent
 - New
 - 0001158860 Oracle columns with CHAR semantics
 - 0001139869 Activation error due to an object that does not exist
 - 0001158860 Termination in upgrade/ENP update. CREATE_DATA_UNKNOWN_TYPE
 - 0001168990 Oracle: UKS-22859 for MODIFY of LOG/CLOB fields
 - 0001248011 Error at 200 or 01-204 in upgrade phase ACT_210
 - 0001247451 Name conflicts lead to inconsistencies
 - 0001250481 CL_SQL_METADATA_OWA_GET_COLUMNS corrected for Unicode
 - 000126384 View/structure not active: key field of type string
 - 0001263115 Technical settings cannot be activated
 - 000121756 Mass activation: Object activated instead of deleted
 - 0001399993 Problem during parallel run of distributor
 - 0001399760 New technical settings are not activated

Procedure: Start SAP Enhancement Package Installer – Extraction



2 Roadmap step 2 - Extraction

- ...completed
- Choose Next



The screenshot shows the SAP NetWeaver Software Delivery Tool interface. At the top, a progress bar indicates the current step is 'Extraction' (step 2), which is highlighted in yellow. The steps are: 1. Initialization, 2. Extraction, 3. Configuration, 4. Checks, 5. Preprocessing, 6. Downtime, 7. Postprocessing, 8. Finalization. Below the progress bar, the text reads: 'Extraction - Initial Software Extraction'. It includes instructions: 'When you choose Next, the installation program starts roadmap step Configuration. When you choose Back, the installation program undoes roadmap step Extraction.' The main area shows a 'Monitor' window for 'ABAP' with the message: 'The operation is successfully completed. The SAP Enhancement Package installation program for ABAP has finished its operation for the current roadmap step.' At the bottom, there are 'Back' and 'Next' buttons, with 'Next' circled in red.

© 2010 SAP AG. All rights reserved. / Page 41

Procedure: Start SAP Enhancement Package Installer – Extraction



3 Roadmap step 3 - Configuration

- Choose Preconfiguration Modes



The screenshot shows the SAP NetWeaver Software Delivery Tool interface. The progress bar now highlights 'Configuration' (step 3) in yellow. The text below reads: 'Configuration - Information Gathering'. It includes instructions: 'During the Configuration roadmap step, you enter all the information required for the installation process. This includes the passwords, the installation strategy, information about Support Packages that you want to include and, and about the shadow system.' The main area shows a 'Monitor' window for 'ABAP' with the message: 'Choose configuration'. Below this, there are radio button options: 'Standard resource use (archiving off)', 'High resource use (archiving off)', 'High resource use (archiving on)', and 'Manual selection of parameters'. The 'Manual selection of parameters' option is selected. At the bottom, there are 'Back' and 'Next' buttons, with 'Next' circled in red.

© 2010 SAP AG. All rights reserved. / Page 42

Procedure: Start SAP Enhancement Package Installer - Configuration



3 Roadmap step 3 - Configuration
It might be necessary to update R3trans and SPAM version

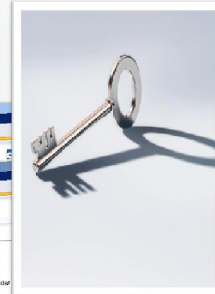


The screenshot shows the SAP NetWeaver Software Delivery Tool interface during the Configuration step. A red error message is displayed: "ERROR: The SPAM version 26 in your system is too low. To proceed with the PREPARE it is necessary to apply the latest SPAM patch available." Below the error, there are "Continue" and "Cancel" buttons. The background shows the "Support Package Manager - Version 7.00/0029" window with various options and buttons.

Procedure: Start SAP Enhancement Package Installer - Configuration



3 Roadmap step 3 - Configuration
You have the possibility to bind EHP's, Add-on's and SP's



The screenshot shows the SAP NetWeaver Software Delivery Tool interface during the Configuration step. It displays the "Selection Add-On ID" table and the "ABAP AS Specific Parameters" section. The table lists Add-On IDs and their Source Releases:

Selection Add-On ID	Source Release
<input type="checkbox"/> EA-EPFE	490
<input type="checkbox"/> PI-06615	2005_1_700
<input checked="" type="checkbox"/> ST-PI	2005_1_700

Below the table, there are options for "How do you want to proceed?" (Ignore stack request, Provide configuration file, Skip inclusion) and "Do you want to include (further) Support Packages of the target release?" (Yes, No).

Procedure: Start SAP Enhancement Package Installer - Configuration



3 Roadmap step 3 - Configuration



- ...completed
- Choose Next



SAP NetWeaver
SOFTWARE DELIVERY TOOL

1 Initialization 2 Extraction 3 Configuration 4 Checks 5 Preprocessing 6 Downtime 7 Postprocessing 8 Finalization

Configuration - Information Gathering

When you choose Next, the installation program starts roadmap step **Checks**.
When you choose Back, the installation program undoes roadmap step **Configuration**.

When you choose Next, the operation is successfully completed.
The SAP Enhancement Package Installation program for ABAP has finished its operation for the current roadmap step.

Back Next

ABAP: Step execution completed

© 2010 SAP AG. All rights reserved. / Page 45

Procedure: Start SAP Enhancement Package Installer - Checks



4 Roadmap step 4 - Checks



- ...running...
- Accept info on kernel installation
- Press Next



SAP NetWeaver
SOFTWARE DELIVERY TOOL

1 Initialization 2 Extraction 3 Configuration 4 Checks 5 Preprocessing 6 Downtime 7 Postprocessing 8 Finalization

Checks - Requirements of the Enhancement Pack

When you choose Next, the installation program starts roadmap step **Preprocessing**.
When you choose Back, the installation program undoes roadmap step **Checks**.

When you choose Next, the operation is successfully completed.
The SAP Enhancement Package Installation program for ABAP has finished its operation for the current roadmap step.

Back Next

ABAP: Step execution completed

© 2010 SAP AG. All rights reserved. / Page 46

Procedure: Start SAP Enhancement Package Installer - Preprocessing



- 5 Roadmap step 5 - Preprocessing ✓
Development environment will be locked in this step
Cloning of original tables to the shadow system starts



SAP NetWeaver
SOFTWARE DELIVERY TOOL

1 Initialization 2 Extraction 3 Configuration 4 Checks 5 Preprocessing 6 Downtime 7 Postprocessing 8 Finalization

Preprocessing - Shadow System Installation

The EHP installation program builds the shadow system from the original one.

Monitor ABAP

ABAP AS Specific Parameters

Lock development environment now?

lock
 exit

Back Next Help OK

Procedure: Start SAP Enhancement Package Installer - Preprocessing



- 5 Roadmap step 5 - Preprocessing ✓
 - Prepare for DOWNTIME phase



SAP NetWeaver
SOFTWARE DELIVERY TOOL

1 Initialization 2 Extraction 3 Configuration 4 Checks 5 Preprocessing 6 Downtime 7 Postprocessing 8 Finalization

Preprocessing - Shadow System Installation

The EHP installation program builds the shadow system from the original one.

Monitor ABAP

Preparations for Downtime

The installation has reached the end of step "Preprocessing".
-> Perform the following actions:

- Stop all production activities now.
- Make sure that all users have logged out.
- Isolate the central instance. For more information, see the installation guide.
- Backup the complete installation directory now (including subdirectory "SDF").
-> In order to restart the program from this point, you need the backup of the program directory together with the database. Make sure that the database can be restored to this point.

Actions completed
 Exit the program

Back Next Help OK

Procedure: Start SAP Enhancement Package Installer – Preprocessing



5 Roadmap step 5 - Preprocessing



- Backup request
- Last step before the Downtime Roadmap step starts

SAP NetWeaver
SOFTWARE DELIVERY TOOL

1 Initialization 2 Extraction 3 Configuration 4 Checks 5 **Preprocessing** 6 Downtime 7 Postprocessing 8 Finalization

Preprocessing - Shadow System Installation

The EHP Installation program builds the shadow system from the original one.

Monitor / ABAP

Request Backup

Back up the complete installation directory now (including subdirectory "sd").

Caution: To restart the installation from this point, you must be able to restore the database, the system directory and the program directory to the current state.

If you have restored the system to this point from a backup, you can also choose to go productive again. You can then enter the downtime again at a later time.

Backup completed
 Go productive again.
 Exit this program

Continue Cancel

Back Next



© 2010 SAP AG. All rights reserved. / Page 49

Procedure: Start SAP Enhancement Package Installer – Downtime



6 Roadmap step 6 - Downtime



- ...Downtime has finished

SAP NetWeaver
SOFTWARE DELIVERY TOOL

1 Initialization 2 Extraction 3 Configuration 4 Checks 5 Preprocessing 6 **Downtime** 7 Postprocessing 8 Finalization

Downtime - System Is Offline

In this roadmap step, the switch to the new Enhancement Pack takes place.

Monitor / ABAP

End of downtime reached

The downtime is finished now.
All secondary application servers of the SAP system can now be restarted.

Continue Cancel

Back Next



© 2010 SAP AG. All rights reserved. / Page 50

Procedure: Start SAP Enhancement Package Installer – Postprocessing



7 Roadmap step 7 - Postprocessing

- Decide on background job scheduling
- Send the evaluation form to SAP...



The screenshot shows the SAP NetWeaver Software Delivery Tool interface during the 'Postprocessing - Start of Post' step. The progress bar at the top indicates steps 1 through 7, with step 7 being the current step. The main window displays the 'SAP Enhancement Package Installation Evaluation' form, which includes a 'SEND TO SAP' button and several questions for user input, such as 'How many customer calls in SAP Service Marketplace did you have to open for your upgrade?' and 'Did the installation meet your expectations regarding the downtime?'. The interface also shows 'ABAP AS Specific Parameters' and 'EHP Installation Information' sections.

© 2010 SAP AG. All rights reserved. / Page 51

Procedure: Start SAP Enhancement Package Installer – Finalization



8 Roadmap step 8 - Finalization

Press OK to end SAP enhancement package installer



The screenshot shows the SAP NetWeaver Software Delivery Tool interface during the 'Finalization - Cleaning Up' step. The progress bar at the top indicates steps 1 through 8, with step 8 being the current step. The main window displays a message box with the text 'The EHP installation is finished. Press Ok to exit.' and an 'OK' button. The interface also shows 'ABAP AS Specific Parameters' and 'EHP Installation Information' sections.

© 2010 SAP AG. All rights reserved. / Page 52

Further Information



➔ SAP Public Web:

SAP Developer Network (SDN): www.sdn.sap.com

Business Process Expert (BPX) Community: www.bpx.sap.com

SAP BusinessObjects Community (BOC): boc.sap.com

➔ Related SAP Education and Certification Opportunities

<http://www.sap.com/education/>

➔ Related Workshops/Lectures at SAP TechEd 2010

ALM205, Understanding Descriptions of SAP System Landscapes to Master Challenges in Life-Cycle Management, Lecture

ALM275, SAP Enhancement Package Installation Experience, Hands-On

ALM300, Near-Zero Downtime Software Maintenance

© 2010 SAP AG. All rights reserved. / Page 53



APPENDIX

SAP Enhancement Package Installer – Implementation Steps





Feedback

Please complete your session evaluation.

Be courteous — deposit your trash,
and do not take the handouts for the following session.

THANK YOU !



© 2010 SAP AG. All Rights Reserved



No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP AG.
The information contained herein may be changed without prior notice.

Some software products marketed by SAP AG and its distributors contain proprietary software components of other software vendors.

Microsoft, Windows, Excel, Outlook, and PowerPoint are registered trademarks of Microsoft Corporation.

IBM, DB2, DB2 Universal Database, System i, System i5, System p, System p5, System x, System z, System z10, System z9, z10, z9, iSeries, pSeries, xSeries, zSeries, eServer, z/VM, z/OS, i5/OS, S/390, OS/390, OS/400, AS/400, S/390 Parallel Enterprise Server, PowerVM, Power Architecture, POWER6+, POWER6, POWER5+, POWER5, POWER, OpenPower, PowerPC, BatchPipes, BladeCenter, System Storage, GPFS, HACMP, RETAIN, DB2 Connect, RACF, Redbooks, OS/2, Parallel Sysplex, MVS/ESA, AIX, Intelligent Miner, WebSphere, Netfinity, Tivoli and Informix are trademarks or registered trademarks of IBM Corporation.

Linux is the registered trademark of Linus Torvalds in the U.S. and other countries.

Adobe, the Adobe logo, Acrobat, PostScript, and Reader are either trademarks or registered trademarks of Adobe Systems Incorporated in the United States and/or other countries.

Oracle is a registered trademark of Oracle Corporation.

UNIX, X/Open, OSF/1, and Motif are registered trademarks of the Open Group.

Citrix, ICA, Program Neighborhood, MetaFrame, WinFrame, VideoFrame, and MultiWin are trademarks or registered trademarks of Citrix Systems, Inc.

HTML, XML, XHTML and W3C are trademarks or registered trademarks of W3C®, World Wide Web Consortium, Massachusetts Institute of Technology.

Java is a registered trademark of Sun Microsystems, Inc.

JavaScript is a registered trademark of Sun Microsystems, Inc., used under license for technology invented and implemented by Netscape.

SAP, R/3, SAP NetWeaver, Duet, PartnerEdge, ByDesign, SAP BusinessObjects Explorer and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP AG in Germany and other countries.

Business Objects and the Business Objects logo, BusinessObjects, Crystal Reports, Crystal Decisions, Web Intelligence, Xcelsius, and other Business Objects products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of Business Objects Software Ltd. in the United States and in other countries.

All other product and service names mentioned are the trademarks of their respective companies. Data contained in this document serves informational purposes only. National product specifications may vary.

The information in this document is proprietary to SAP. No part of this document may be reproduced, copied, or transmitted in any form or for any purpose without the express prior written permission of SAP AG.

This document is a preliminary version and not subject to your license agreement or any other agreement with SAP. This document contains only intended strategies, developments, and functionalities of the SAP® product and is not intended to be binding upon SAP to any particular course of business, product strategy, and/or development. Please note that this document is subject to change and may be changed by SAP at any time without notice.

SAP assumes no responsibility for errors or omissions in this document. SAP does not warrant the accuracy or completeness of the information, text, graphics, links, or other items contained within this material. This document is provided without a warranty of any kind, either express or implied, including but not limited to the implied warranties of merchantability, fitness for a particular purpose, or non-infringement.

SAP shall have no liability for damages of any kind including without limitation direct, special, indirect, or consequential damages that may result from the use of these materials. This limitation shall not apply in cases of intent or gross negligence.

The statutory liability for personal injury and defective products is not affected. SAP has no control over the information that you may access through the use of hot links contained in these materials and does not endorse your use of third-party Web pages nor provide any warranty whatsoever relating to third-party Web pages.

© 2010 SAP AG. All rights reserved. / Page 56