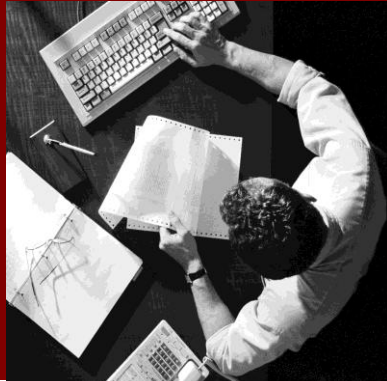


## **Installation Guide: Central Build Instance**



# **SAP<sup>®</sup> ME Build Tool**

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## **6.0**

### **Target Audience**

- Project Managers
- Build Engineers

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#### Documentation in SAP Developer Network (SDN)






You can find this documentation in SAP Developer Network (SDN) titled

***Simple Use Cases for Advanced Adapter Engine Extended.***

## Typographic Conventions

Type Style	Description
<i>Example Text</i>	Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options.  Cross-references to other documentation
<b>Example text</b>	Emphasized words or phrases in body text, graphic titles, and table titles
EXAMPLE TEXT	Technical names of system objects. These include report names, program names, transaction codes, table names, and key concepts of a programming language when they are surrounded by body text, for example, SELECT and INCLUDE.
Example text	Output on the screen. This includes file and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools.
<b>Example text</b>	Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation.
<b>&lt;Example text&gt;</b>	Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.
EXAMPLE TEXT	Keys on the keyboard, for example, F2 or ENTER.

## Icons

Icon	Meaning
	Caution
	Example
	Note
	Recommendation
	Syntax

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# History of Changes

The following table provides an overview of the most important changes that were made in the latest versions.

Version	Important Changes
1.0	Initial revision
1.1	Changes to support SAP ME 6.0
1.2	Add Upgrade topic

# 1 Installation Overview

This document describes the installation of the SAP ME Build Tool. The build tool is a tool for building and packaging extensions created for the SAP Manufacturing Execution application. A stand-alone installation of the build tool is a required component in the landscape of each software vendor and serves as the central build instance (CBI) for building extensions at the end of a development cycle. The build tool installer delivers a guide called the *SAP ME Build Tool User Guide* which describes the development landscape in detail. Throughout this documentation the terms CBI and “build tool” are used interchangeably.

Installation of the CBI does not depend on setup of external systems, however use of a source control system is highly recommended. Using a source control system is critical for maintaining a history of changes to the project source, especially with respect to team development. A source control system also makes the process of synchronizing sources between SDK developers and the CBI much easier and less prone to error.

## 1.1 Platform Availability

The following tables list the software version compatibility and minimum hardware requirements:

Component	Version
OS	Windows XP, Vista, 7 Windows Server
JDK	Java 2 Standard Edition 1.6 update 21 or higher 1.6 release (32 bit)

Free Disk Space	Physical Memory	CPU
5G	1G	2 Ghz

## 1.2 Prerequisites

The following information and software should be available prior to creating a new installation of the CBI:

- Vendor Information
- Vendor certificate keystore
- Installed Java Development Kit (JDK) 1.6 update 21 or higher 1.6 release (32 bit)

## 1.2.1 Vendor Information

### Vendor Name

The software vendor is the human readable name of the development organization responsible for creating software extensions.

**Ex.** ACME Software Consulting


### Customer Name

The customer name is the name of the organization for which the extensions are being built.

**Ex.** PCA Electronics Inc

### Vendor ID

A team ID, referred to as the vendor ID, must be assigned by the project manager to each member of the local development team, including all developers and the CBI user. If more than one development team (software vendor) is participating in the project, then each team must have a unique ID assignment.

 The same vendor ID must be assigned to the CBI and all developer SDK installations. The ID "sapdev" is reserved for SAP Custom Development.

On a technical level the vendor ID is a namespace qualifier that is used by the build tool to package development artifacts and to create unique names for the resulting build archives. This insures that artifacts such as Java classes and the archives in which they are packaged are globally unique with respect to those created by other software vendors.

If you have not been assigned a vendor ID, contact your project manager so that one can be created. Note that the installer will only allow a vendor ID value that conforms to the following restrictions:

- Globally unique for all software vendors participating in the project
- Contains only lower case alphanumeric characters, including underscore
- Does not begin with an underscore or number
- Is between two and sixteen characters long

## 1.2.1 Certificate Keystore

When the CBI packages ME extensions it creates Java archive files and signs them using keys from the build tool keystore. Software extensions must be signed before they can be loaded and executed within the SAP ME application.

The keystore is created by SAP and delivered as part of SDK training. It contains a certificate chain including the SAP root certificate and a vendor certificate created specifically for your software organization. The vendor certificate is signed by the SAP certificate, and so any extension archive signed by the vendor certificate is considered trusted by the ME application.

The installer will prompt you for the location of the keystore file, and so you should have this available prior to installing the build tool.

## 1.2.2 Installing the JDK


The CBI requires Java 1.6 32 bit JDK to run. The installer will prompt you to specify the location of the JDK, and so this must be downloaded and installed prior to installing the CBI. The latest 1.6 JDK is available for download at

<http://www.oracle.com/technetwork/java/javase/downloads/index.html>.

- 💡 The full JDK must be installed. It is not adequate to install only the Java Runtime Environment (JRE).



## 2 Installation

 Before continuing with the installation, make sure you have read any SAP Notes related to the Build Tool version you are installing. SAP ME Build Tool notes can be accessed on Service Marketplace using the MFG-ME-SDK component.

To install the build tool, run the setup file and follow the on screen instructions. Make sure you have read and understand all installation prerequisites. Once completed proceed to *Post Installation Steps*.

## 3 Post Installation Steps

Before running the build you will need to perform the following steps:

1. Import ME Update Archives (this must be done for both new and upgrade installs)
2. Reset keystore passwords (new install only)

### 3.1 Import ME Update Archives

The ME Software Update Archive (SUA) is the unit of shipment used to update the ME application and is made available for download on the [SAP Service Marketplace](#) under

*Software Downloads->Support Packages and Patches->A - Z Index->M->SAP MFG Execution->SAP MFG Execution 6.x->Comprised Software Component Versions->SAP MFG EXEC BY VISIPRISE*

It contains all base application binaries and resources for a particular version of ME. As part of the build process, you must import core ME packages prior to building extensions.

The package available on Service Marketplace is not an SUA itself, but rather a product archive that contains two SUAs, one for ME server components, and another for ME client scripts. The following diagram shows an expanded view of the ME 6.0 SP1 product archive:

```
SAP_MFG_EXEC_BY_VISIPRISE_6.0_SP01P_00_Update.zip
```

```
|- Clients
```


```
    |- MEClient_Base_6.0.1.0.38_Update.zip
```

```
|- Server
```

```
    |- ME_Base_6.0.1.0.38_Update.zip
```

Simply extract the update archives (in bold) from the product archive and copy them to the `<InstallDir>\import\sua` directory. To import the archives, open a command shell in the `<InstallDir>\build` directory and enter the following command:

```
build import
```

 The *SAP ME Build Tool User Guide* is delivered by the installation and describes SUA import as well as other build system operations and concepts.

### 3.2 Reset Keystore Passwords

The CBI must provide two passwords before it can access the keystore when signing build artifacts. The first is the keystore password, which is used to access the keystore. The second is the key password, which is used to access the public/private key pair. When the keystore was created the keystore and key pair passwords were initialized with a default password. The default password should be changed to a private password to insure the integrity of the keystore.

The build tool provides an Ant target called `reset.keystore.passwords` that will prompt you for new passwords. To run this target, open a command shell in the `<InstallDir>\build` directory and enter the following command:

```
build reset.keystore.passwords
```

## 4 Uninstall

The following options are available during the un-installation process:

1. Full Uninstall
2. Partial Uninstall

If you select the **Full** uninstall option then all files will be removed by the installer **except** extension sources located under the `\extension` directory.

If you select the **Partial** uninstall option then several directories and files will not be removed so that you may install the Build Tool into the same location and reuse many of the existing files.

Retained files include:

- Build configuration file: Upon reinstallation you will be prompted to reuse build configuration settings so that you do not have to enter them again
- Third party libraries: Any third party libraries that your extension require
- SUA/SEA: The core ME SUA and external software vendor's SEAs
- Build export: Exported build results
- Extension sources

## 5 Upgrade

The installer supports upgrade of a Build Tool 5.2 installation. To upgrade you must first uninstall the existing Build Tool and then run the Build Tool 6.0 installer, choosing the existing installation location. As a convenience the installer will allow you to reuse installation settings from the previous installation or choose new setting values.

The Build Tool supports limited upgrade capability so that you can install a newer version into an existing installation location.

You perform the following steps to complete the upgrade:

1. Uninstall the current installation using the **Partial** uninstall option (see *Uninstall* for more information).
2. Run the new installer choosing the existing installation location.
3. Complete the post installation step *Import ME Update Archives* as described previously in this guide.