



**Installation: SAP Mobile Platform SDK for  
Windows**

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**SAP Mobile Platform 3.0 and  
SP01**

Windows

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# Contents

# Installing SAP Mobile Platform SDK

SAP® Mobile Platform SDK works closely with SAP Mobile Platform Server, but its installation is independent.

## 1. *Preparing for Installation*

Ensure that the host on which you are installing SAP Mobile Platform SDK meets the system requirements and is ready for you to begin the installation.

## 2. *Acquiring the Installer*

The SAP Mobile Platform SDK installer is available as physical media and as a Web download.

## 3. *Running the Installer*

Start the SAP Mobile Platform SDK installer, accept the end user license agreement, specify the installation directory and components to install, and launch the installation process.

## 4. *Verifying the Installation*

After you complete the installation, verify that the installation is successful.

## Preparing for Installation

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Ensure that the host on which you are installing SAP Mobile Platform SDK meets the system requirements and is ready for you to begin the installation.

### 1. Verify that the target system meets the system requirements for SAP Mobile Platform SDK.

See the SAP Product Availability Matrix (PAM) <http://service.sap.com/pam>. Click the **Mobile** link at the top of the page. Scroll to find the appropriate product and version in the product list. Click the **Technical Release Information** tab for the list of supported operating systems and databases. In the **General Information** tab, click **Additional Release Information** in the Related Links section for additional system requirements, supported development environments, devices, and third-party compatibility.

For information on specific requirements for developing different types for different devices, see the list of SAP Notes in *Supported Versions for SAP Mobile Platform SDK in New Features*.

### 2. If User Account Control (UAC) is present in the version of Windows where you are installing, disable it. Restart the system for this change to take effect.

## Installing SAP Mobile Platform SDK

- a. Access the Control Panel option that manages User Account Control on your version of Windows.
- b. Set the user account to never be notified about changes to your computer. Reenable UAC after completing this installation.
3. Verify that you have Administrator privileges on the installation target host.
4. Remove the JAVA\_TOOL\_OPTIONS environment variable.  
Check for JAVA\_TOOL\_OPTIONS in both User Variables and System Variables panes of the Environment Variables dialog.
  - a) Right-click **My Computer** and select **Properties**.
  - b) Select **Advanced System Settings**.
  - c) Click the **Advanced** tab.
  - d) Click **Environment Variables**.
  - e) Select JAVA\_TOOL\_OPTIONS and click **Delete**.
  - f) Click **OK** to exit all dialogs.
5. If there is an earlier version of SAP Mobile Platform SDK installed on the same computer where you are installing this version, back up any `workspace` directories that were used by SAP Mobile Workspace.

## Acquiring the Installer

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The SAP Mobile Platform SDK installer is available as physical media and as a Web download.

Use one of these methods:

- Insert the physical installation media.
- Download from the software distribution center on SAP Service Marketplace:
  - a. Go to <http://service.sap.com/swdc>.
  - b. Under "A-Z Index" click **Installations and Upgrades**.
  - c. Click **M**.
  - d. Click **SAP MOBILE PLATFORM SDK**.
  - e. Click the link for the current version.
  - f. Download the package for the SAP Mobile Platform SDK installer.
  - g. Extract the entire contents of the installer `.zip` file to a temporary directory on a local disk on the target host.

Use a short path, preferably a folder directly below the root directory, such as `C:\temp`. The path can include only ASCII alphanumeric characters, underscore (`_`), hyphen (`-`), and period (`.`). Two consecutive period characters are not allowed.

## Running the Installer

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Start the SAP Mobile Platform SDK installer, accept the end user license agreement, specify the installation directory and components to install, and launch the installation process.

1. Browse to the root directory of the SAP Mobile Platform installer, and:
  - On Windows versions that support running as administrator, right-click the **setupAMD64.exe** file and select **Run as Administrator**.
  - On earlier supported versions of Windows, double-click the **setupAMD64.exe** file.

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**Note:** The installer displays an `Initializing wizard...` message while it verifies the integrity of the installation image. It may take a few minutes for the first installer panel to appear.

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2. On the installer welcome page, click **Next**.
3. On the end-user license agreement page, select your country, accept the terms of the license agreement and click **Next**.
4. Specify the absolute path to the installation location, which must reside on a local drive on the target host.

The total length of the path must be 29 characters or less.

The path can include only ASCII alphanumeric characters, underscore ( \_ ), hyphen ( - ), and period ( . ). Two consecutive period characters are not allowed.

5. If an existing installation of SAP Mobile Platform is detected, click **Next** to install SAP Mobile Platform SDK under that directory.
6. Select the installation type, based on the SDK components you want to install:
  - **Standard** – installs all the components available.
  - **Custom** – lets you select the specific components to install.
7. If you selected Custom on the installation type panel, select the specific components to install.

Ensure that you select the components required for the type of development you plan to do:

SDK Component	Description
Native SDK	Provides an open and flexible framework for native OData application development for both online and offline applications. Components are implemented as independent static runtime libraries.
Kapsel SDK	Provides SAP plug-ins that enhance the Apache Cordova application container, allowing it to seamlessly integrate with SAP Mobile Platform Server.

SDK Component	Description
Agency Toolkit	Supports metadata-driven applications that enable maintenance and service technicians to access to SAP® Business Suite software, online or offline, from a broad range of devices.
SMS Toolkit	Supports creation of SMS applications using predefined and custom application states. Use the application states as basic building blocks you link sequentially to model application task flows.

8. On the summary information panel, verify the installation features and click **Install**.
9. Click **Finish**.

## Verifying the Installation

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After you complete the installation, verify that the installation is successful.

1. Use a text editor to open the `SMPSDKInstall<date-time>.log` file from the `SMP_HOME\InstallLogs` directory.  
By default, SAP Mobile Platform SDK components are installed in the `C:\SAP\MobileSDKXXX` directory. In this guide, `SDK_HOME` represents the SAP Mobile Platform SDK installation directory, down to the `MobileSDKXXX` folder.
2. Search for "error"—no search results indicates that the installation completed successfully.

### *Next*

Install support package 01: *Upgrading to Support Package 01* on page 5.



# Upgrading to Support Package 01

Upgrade SAP Mobile Platform SDK 3.0 with SP01.

## Acquiring the Support Package Installer

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The SAP Mobile Platform SDK SP01 installer is available as physical media and as a Web download.

Use one of these methods:

- Insert the physical installation media.
- Download from the software distribution center on SAP Service Marketplace:
  - a. Go to <http://service.sap.com/swdc>.
  - b. Under "A-Z Index" click **Installations and Upgrades**.
  - c. Click **M**.
  - d. Click **SAP MOBILE PLATFORM SDK**.
  - e. Click the link for the current version.
  - f. Download the package for the SAP Mobile Platform SDK installer.
  - g. Extract the entire contents of the installer .zip file to a temporary directory on a local disk on the target host.

Use a short path, preferably a folder directly below the root directory, such as C:\temp. The path can include only ASCII alphanumeric characters, underscore ( \_ ), hyphen ( - ), and period ( . ). Two consecutive period characters are not allowed.

## Running the Support Package Installer

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Start the SAP Mobile Platform SDK SP01 installer, accept the current installation directory, select components to upgrade, and launch the installation process.

### Prerequisites

- SAP Mobile Platform SDK version 3.0 must already be installed on the system where you are running the SP01 installer.
- If you did not include the AgencyToolkit component in the 3.0 installation and you want to add it now, you must have at least 700 MB of free disk space.

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**Note:** The installation path you accept below is referred to as *SDK\_HOME* in the rest of these instructions.

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### Task

1. If you are upgrading the AgentryToolkit component from the 3.0 installation, back up any files you have added in the `SDK_HOME\AgentryToolkit` tree, then delete the `\AgentryToolkit` folder with all subfolders and files.
2. Browse to the root directory of the SAP Mobile Platform installer, and:
  - On Windows versions that support running as administrator, right-click the **setupAMD64.exe** file and select **Run as Administrator**.
  - On earlier supported versions of Windows, double-click the **setupAMD64.exe** file.

---

**Note:** The installer displays an `Initializing wizard...` message while it verifies the integrity of the installation image. It may take a few minutes for the first installer panel to appear.

---

3. On the installer welcome page, click **Next**.
4. Accept the path to the current installation location.

You cannot change the installation directory when you install a support package.
5. Select the specific components to upgrade.

Currently installed components have "(installed)" following the component name. You may add components that are not currently installed.
6. On the summary information panel, verify the installation features and click **Install**.
7. Click **Finish**.

### Next

If you are upgrading the Kapsel component, and you have any Cordova projects created with SAP Mobile Platform SDK version 3.0:

1. Continue with *Upgrading Kapsel Applications* on page 6.
2. Then go on to *Verifying the Support Package Installation* on page 10.

If you have no Cordova projects created with SAP Mobile Platform SDK version 3.0, go on to *Verifying the Support Package Installation* on page 10.

## Upgrading Kapsel Applications

Follow these steps to upgrade your Kapsel plugins to use Cordova 3.1.

### Prerequisites

- Perform the upgrade to Support Package 01
- Close any open Cordova projects
- Create a backup of your Cordova 3.0 projects

## Task

Kapsel plugins are compiled for a specific version of the Cordova framework. As subsequent versions of Cordova are released, the Kapsel plugins must be tested, updated (if necessary), and built for release, against the updated Cordova version. This means that you cannot immediately use new Cordova versions for Kapsel applications—you must wait for the compatible version of Kapsel to be released before building Kapsel applications using the updated version of Cordova.

For example, the initial version of Kapsel supported Cordova 3.0 and Cordova command line interface 3.0.9, so you could use only Cordova 3.0 with the initial version of Kapsel. SAP Mobile Platform SP01 adds support for Cordova 3.1.

---

**Note:** Do not use a version of Cordova that is not compatible with the current version of the Kapsel SDK. If you upgrade your project to an incompatible version of Cordova, the Kapsel plugins may still install, but the application will not build properly and may not run on a mobile device or emulator.

---

All of the commands in this procedure are performed in a terminal window on Mac, or a Windows command prompt window, in the Cordova project directory. If you have more than one Cordova project to upgrade, you must perform the same steps in each Cordova project directory.

1. To determine which version of Cordova the project was created with, navigate to the directory that contains your Cordova project and enter:

```
cordova platform
```

For example:

```
C:\Kapsel_Projects\StorageDemo>cordova platform
```

You see something similar to:

```
Installed platforms: android 3.0.9
```

This example shows that Cordova 3.0.9 is installed for the Android platform.

2. Determine which version of the Cordova command line interface is installed by entering:

```
cordova -v
```

3. See if there is a newer version of Cordova by entering:

```
npm info cordova
```

You see output similar to this:

```
npm http GET https://registry.npmjs.org/cordova
npm http 304 https://registry.npmjs.org/cordova
```

```
{ name: 'cordova',
  description: 'Cordova command line interface tool',
  'dist-tags': { latest: '3.1.0-0.2.0' },
  versions:
    [ '0.0.1',
      '0.0.2',
```

```
...
  '3.0.6',
  '3.0.7',
  '3.0.8',
  '3.0.9',
  '3.0.10',
  '3.1.0-0.1.0',
  '3.1.0-0.2.0' ],
```

4. Upgrade to the specified Cordova version by entering:

On Windows: `npm install -g cordova@<current_cordova_version>-<upgrade_cordova_version>`

On Mac: `sudo npm install -g cordova@<current_cordova_version>-<upgrade_cordova_version>`

For example, on Windows, to upgrade from Cordova 3.1.0 to version 0.2.0, enter:

```
npm install -g cordova@3.1.0-0.2.0
```

5. Upgrade the Cordova project by entering:

For Android `cordova -d platform update android`

For iOS `cordova -d platform update ios`

The `-d` flag indicates debug output and is optional.

See [http://cordova.apache.org/docs/en/3.1.0/guide\\_platforms\\_android\\_upgrading.md.html#Upgrading%20Android](http://cordova.apache.org/docs/en/3.1.0/guide_platforms_android_upgrading.md.html#Upgrading%20Android) for Android and

[http://cordova.apache.org/docs/en/3.1.0/guide\\_platforms\\_ios\\_upgrading.md.html#Upgrading%20iOS](http://cordova.apache.org/docs/en/3.1.0/guide_platforms_ios_upgrading.md.html#Upgrading%20iOS) for iOS for more information.

6. To see what plugins you have installed, navigate to the Kapsel project folder, and enter:

```
cordova plugins
```

You see a list of the plugins included with the application, for example:

```
[ 'com.sap.mp.cordova.plugins.appupdate',
  'com.sap.mp.cordova.plugins.authproxy',
  'com.sap.mp.cordova.plugins.corelibs',
  'com.sap.mp.cordova.plugins.encryptedstorage',
  'com.sap.mp.cordova.plugins.i18n',
  'com.sap.mp.cordova.plugins.logger',
  'com.sap.mp.cordova.plugins.logon',
  'com.sap.mp.cordova.plugins.push',
  'com.sap.mp.cordova.plugins.settings',
  'org.apache.cordova.console',
  'org.apache.cordova.device',
  'org.apache.cordova.device-orientation',
  'org.apache.cordova.dialogs',
  'org.apache.cordova.inappbrowser' ]
```

In the above example, you see that both Kapsel and Cordova Core plugins appear. This is because some of the Kapsel plugins rely on some of the Cordova Core APIs.

7. Uninstall each of the Kapsel plugins you have installed by entering:

```
cordova plugin remove <plugin_id>
```

Where *<plugin\_id>* refers to the ID for the particular plugin. For example, to uninstall the Logon plugin, you would enter:

```
cordova plugin remove com.sap.mp.cordova.plugins.logon
```

Repeat this step for each Kapsel plugin, changing the plugin ID as needed, according to the plugin you are removing.

---

**Note:** Since some of the Kapsel plugins depend on several of the Cordova plugins and those Cordova plugins may have been updated with each new release of Cordova, the dependent Cordova plugins must also be removed from the project before you reinstall the Kapsel plugins. Beginning with Cordova command line interface 3.1, dependent plugins should be removed when all plugins that rely upon them are removed, so when you complete these steps, both the Kapsel and associated, dependent Cordova Core API plugins should be removed from the project. However, testing has proven that this is not always the case. If, after removing all of the Kapsel plugins, you execute the **cordova plugins** command from a terminal window, you may see remnant plugins left in the project as shown in the example below.

---

8. Add the Kapsel plugins back to the project by entering:

```
cordova plugin add <path_to_Kapsel_plugin>
```

For example, to add the AppUpdate plugin, enter:

On Windows:

```
cordova -d plugin add <SDK_HOME>\MobileSDK3\KapselSDK
\plugins\appupdate
```

On Mac:

```
cordova -d plugin add ~<SDK_HOME>/MobileSDK3/KapselSDK/
plugins/appupdate
```

---

**Note:** The path you enter to the Kapsel plugin must be the absolute path (not relative path).

---

9. Prepare the Cordova project by entering:

```
cordova -d prepare android
```

or

```
cordova -d prepare ios
```

10. Upgrade the Kapsel command line interface by entering:

```
SDK_HOME\MobileSDK3\KapselSDK\cli>npm uninstall -g kapsel
SDK_HOME\MobileSDK3\KapselSDK\cli>npm install -g
```

## Verifying the Support Package Installation

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After you complete the support package upgrade, verify that the installation is successful.

1. Use a text editor to open the latest `SMPSDKInstall<date-time>.log` file from the `SMP_HOME\InstallLogs` directory.

By default, SAP Mobile Platform SDK components are installed in the `C:\SAP\MobileSDKXXX` directory. In this guide, `SDK_HOME` represents the SAP Mobile Platform SDK installation directory, down to the `MobileSDKXXX` folder.

2. Search for "error"—no search results indicates that the installation completed successfully.

### *Next*

Perform *Postinstallation Tasks* on page 11.

# Postinstallation Tasks

Continue with the developer documentation for the type of development supported by the SAP Mobile Platform SDK components you have just installed.

Go to the *Setting Up the Development Environment* topic in the applicable developer documentation from the list below.

SDK Component	Developer Documentation
Native SDK	<i>Native OData App Development</i>
Kapsel SDK	<i>Kapsel Development</i>
Agentry Toolkit	<i>Agentry App Development</i>





# Uninstalling SAP Mobile Platform SDK

Uninstall SAP Mobile Platform SDK using the Control Panel option to remove programs, which launches the uninstaller.

## Prerequisites

- Back up any user-created files and log files you want to keep from the installation directories to another location.
- Prevent virus scans, backups, and system updates from interfering with the uninstallation by either excluding the SAP Mobile Platform SDK installation directory from these processes, or by temporarily disabling these processes.

## Task

1. From the Control Panel, select the appropriate option for adding or removing programs (the exact name of the option depends on your Windows version), then select **SAP Mobile Platform SDK 3.0**.
2. Click **Next** in the welcome window.
3. Select the components to be uninstalled and click **Next**.
4. On the summary information panel, click **Uninstall** to start uninstalling the selected SAP Mobile Platform SDK components.
5. Click **Finish** when you see:  
The InstallShield Wizard has successfully uninstalled SAP Mobile Platform SDK <version>.
6. Manually delete any folders and files remaining in the `SDK_HOME` tree.

## Uninstalling SAP Mobile Platform SDK

# Troubleshooting

Determine the cause of common problems and apply the recommended solution.

## Issues Requiring Product Support

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Your SAP support ID gives you access to enterprise-level incident support as part of your support plan on SAP Service Marketplace.

Product Support can help you resolve new undocumented incidents with software installation, start-up, and overall use, as well as providing diagnostic and troubleshooting assistance for known problems with a new or undocumented cause.

## Product Support Engagement Requirements

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If you use SAP Service Marketplace to engage with Product Support, you must meet certain requirements.

### *Service Marketplace Case Creation Requirements*

Be prepared to provide:

- A valid installation number for SAP Mobile Platform
- A valid service contract with SAP
- A valid system ID (S-User ID)
- An enabled NetViewer connection.

### *SAP Mobile Platform Incident Requirements*

- Configure your logs to an appropriate level for your issue. Product Support requires details from one or more of the system logs.
- Capture these basic incident details to help Product Support analyze the problem, and determine any next steps:
  - Environment summary: product version, back end, client type (device and OS), proxy connections. These details help isolate component that is causing the failure. If you have an architecture diagram, share it with SAP.
  - Problem description: what were the actions preceded the incident. Capture all details that allow Product Support to reproduce the issue.
- Locate the server version in the `SMP_HOME\Server\version.properties` file.

## **Creating an Incident on SAP Service Marketplace**

If you cannot resolve problems with the troubleshooting documentation for SAP Mobile Platform, go to SAP Service Marketplace for additional help.

Use SAP Service Marketplace to create an incident message for Product Support. Keywords from this message return related articles from the Knowledge Base. Before you submit a message, review these articles to see if they resolve your problem.

1. Go to *<http://service.sap.com/message>*.
2. Create a message using the wizard.

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**Note:** You must know the component ID for SAP Mobile Platform to return the correct scope of Knowledge Base Articles and to correctly route the message to Product Support. On-premise installations of SAP Mobile Platform use a different ID than cloud instances. See Knowledge Base Article *1915061- How to Choose a Component for SAP Mobile Platform 3.x in Service Marketplace*.

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3. Once the message is processed, you receive an e-mail notification of the solution.

# Installation Directories

Find the component files necessary to develop different types of applications.

The following table shows the top-level subdirectories that are created when you install SAP Mobile Platform SDK. The directory names identify the type of application that the different components support.

By default, SAP Mobile Platform SDK components are installed in the `C:\SAP\MobileSDKXXX` directory. In this guide, `SDK_HOME` represents the SAP Mobile Platform SDK installation directory, down to the `MobileSDKXXX` folder.

These directories appear immediately below the directory into which you extract the contents of the SAP Mobile Platform SDK .zip file.

**Table 1. SAP Mobile Platform SDK Installation Subdirectories**

Directory	Description
<code>_smpjvm</code>	JVM used by the uninstaller
<code>AgencyToolkit</code>	Agency Editor, Agency Test Environment, and support files.
<code>ClientHub</code>	Files for Client Hub applications, used for registering applications on iOS and Android devices.
<code>InstallLogs</code>	Log files that are created each time the SAP Mobile Platform SDK installer is used. Use these logs to troubleshoot installer issues.
<code>KapselSDK</code>	Kapsel framework files.
<code>NativeSDK</code>	Native application files. that support Mobile Application Framework (MAF) and OData Framework.
<code>SMSToolKit</code>	Short Message Service (SMS) files, that support SMS Builder.
<code>ThirdParty</code>	License terms of third-party components that are included in SAP Mobile Platform SDK.
<code>Uninstaller</code>	SAP Mobile Platform SDK uninstaller files.



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