

December 2012

how to use the flash tool for Xperia™

user guide

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First edition (December 2012)

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preface

Sony Xperia™ Developer World

For the latest technical news, tutorials and development tools, go to sonymobile.com/developer.

about this document

This document describes how to install and use the flash tool for unlocked Sony Xperia™ smartphones. To use this document you should be a developer or an advanced user, used to working with unlocked phones and custom ROMs. To update the software of an Xperia™ smartphone with locked bootloader, go to sonymobile.com/update.

document history

Change history

2012-12-06	Version 1.0.0	First version
2013-01-21	Version 1.0.1	Minor update
2014-11-21	Version 1.1.0	Windows XP no longer supported

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introduction

The flash tool for Xperia™ devices, called Emma, is an application used for flashing Sony software on your unlocked Xperia™ smartphone. This is useful if you've for example flashed a custom ROM on your device, and want to go back to standard Sony software. The flash tool for Xperia™ can only be used for Xperia™ smartphones with unlocked boot loaders. Also note that not all unlockable Xperia™ devices are supported. For a list of all supported devices, see <http://developer.sonymobile.com/flashtool>.

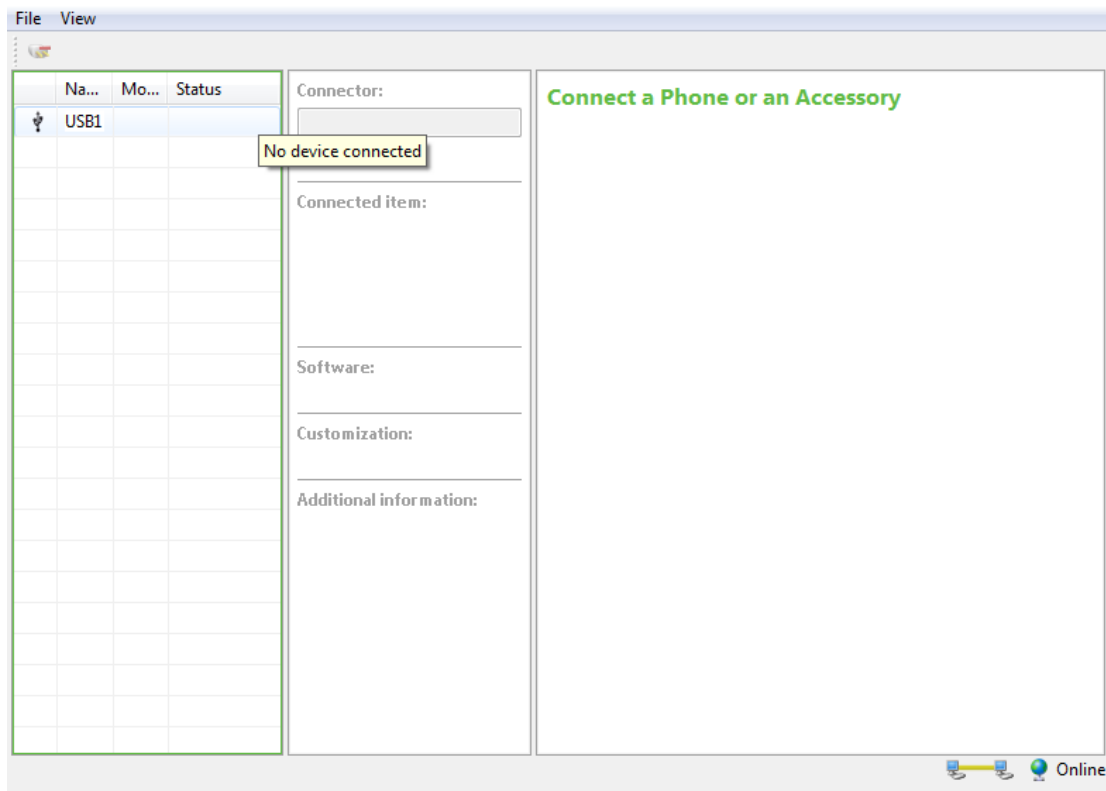


Figure 1. Screenshot showing the main view of the flash tool for Xperia™.

The flash tool for Xperia™ consists of two parts, an application called **Emma** (which you download and install on your computer), and a server (referred to as **the Emma server** in this document). As a user, all you have to worry about is the application part, which connects to the Emma server to access the software for your phone.

unlock your Xperia™ smartphone

The flash tool for Xperia™ is intended to be used with Xperia™ smartphones that have unlocked bootloaders. Connecting any other type of phone will not work, and will simply result in an error message. For more information about unlocking your phone go to

<http://unlockbootloader.sonymobile.com>. Please note that unlocking the bootloader may void your phones warranty.

how to download and install the flash tool for Xperia™ devices

Before you can flash your unlocked phone, you need to download and install the flash tool for Xperia™. In this section, we will guide you to all the steps you need to take when installing the tool. Before you get started, you need to make sure that your computer environment meets certain requirements.

prerequisites

You must have administrator permissions on your computer to be able to install and run the flash tool for Xperia™ devices.

The following operating systems are supported:

- Windows Vista
- Windows 7
- Windows 8

required PC hardware for using the flash tool for Xperia™.

In order for the flash tool for Xperia™ to work properly, your PC must at least meet the following performance requirements.

Minimum:

- 1.0 GHz CPU
- 1.0 GB RAM (Windows Vista, Windows 7 or Windows 8)

Recommended:

- 2.0 GHz CPU
- 1.0 GB RAM (Windows Vista, Windows 7 or Windows 8)

Note: If you do not follow the recommendations, Sony cannot guarantee the functionality of the flash tool for Xperia™.

You will also need a USB cable to connect your phone to your computer. We recommend that the USB cable is connected directly to one of your computer's USB sockets. If a hub is used, it should be a good quality USB 2.0 hub, with external power supply.

Internet bandwidth recommendations

To guarantee communication with the Emma server, we recommend that your Internet bandwidth is at least 1.0 Mbps (available capacity).

install the flash tool for Xperia™

Before you can use the flash tool for Xperia™ you need to download and install it on your computer.

1. Download the Flash_tool_for_Xperia_1.zip file from <http://developer.sonymobile.com/flashtool>.
2. Unzip the Flash_tool_for_Xperia_1.zip and place it somewhere on your computer.
3. Run **Emma_setup.exe**. During the installation, make sure you remember the installation path:
 - a. Default path in Windows 64 bit is: "C:\Program Files (x86)\Sony Mobile\Emma\"
 - b. Default path in Windows 32 bit is: "C:\Program Files\Sony Mobile\Emma\"
4. Copy the Customization.ini file. You find it in the Flash_tool_for_Xperia_1.zip.
5. Paste the Customization.ini file into the installation folder. The installation folder is the folder named **Emma** in the installation path examples on point 3.a and 3.b above.
6. Start **Emma** by clicking *Start > All programs > Sony Mobile > Emma > Emma* (if you used the default installation path from step 3 above).

uninstall the flash tool for Xperia™

1. In Windows, click *Start > All programs > Sony Mobile > Emma > Uninstall* (if you used the default installation path from step 3 above).
2. In the **Emma Uninstall** window, click *Yes*.

flash software on your phone using the flash tool for Xperia™

When you have installed the flash tool for Xperia™ as described above, you can flash standard Sony software on your Xperia™ smartphone with an unlocked boot loader.

Note! When you flash software onto your phone with the flash tool for Xperia™ devices, your user data and content is erased. Make sure to properly back up anything you don't want to lose.

This is how you flash software on your phone:

1. **Computer:** Open **Emma** from the Start menu of your computer.
2. Connect a USB cable to your computer.
3. **Phone:** Turn off your phone.
4. Connect your phone to the USB cable while holding the *flash key* (for example *Volume down*). The flash key varies between models. For a complete key mapping, see <http://developer.sonymobile.com/flashtool>.

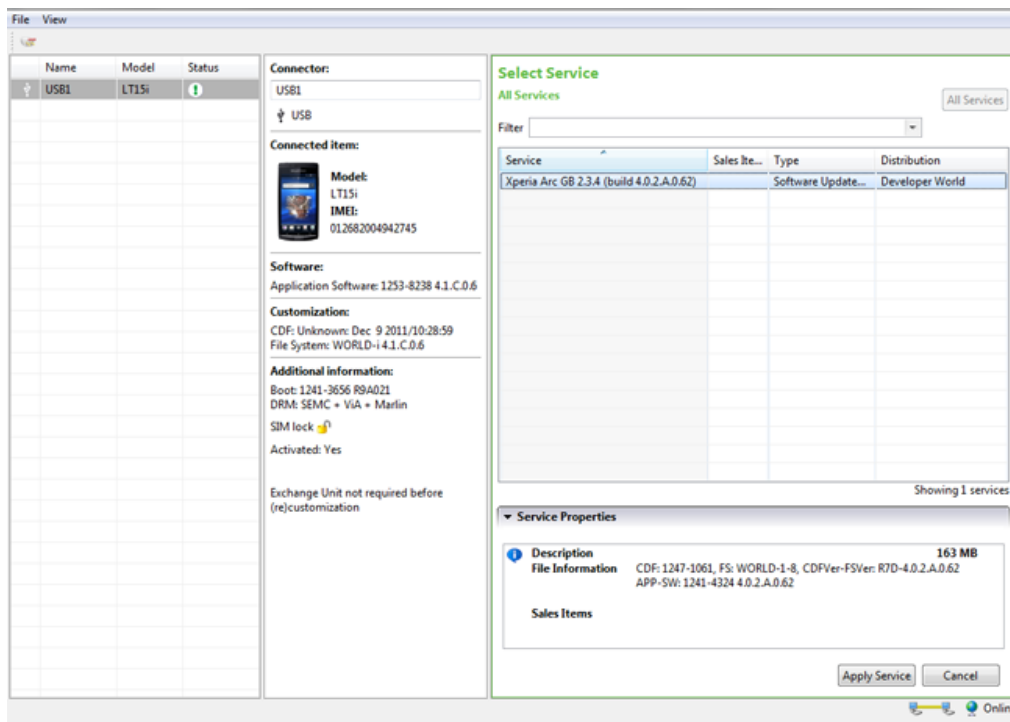


Figure 2. Screenshot showing the main view when a supported phone is connected.

5. **Computer:** Select the software you want in the **Service** list. The tool automatically detects the phone model and lists available software versions, which are called **Services** in this flash tool.
6. Click on *Apply Service*. The phone will now be flashed.
7. **Phone:** When the flashing is finished, you can disconnect your phone from the USB cable. The first time you start your device after flashing, the boot-up might take a little longer than normal.

troubleshooting

In this section you can find the most common issues that can occur while using the flash tool for Xperia™, along with the cause and solution for each.

I'm asked to login, do I need an account for this tool?

If you are prompted to login when starting the flash tool for Xperia™, do not try to login or register an account. For this tool, you don't need an account to flash unlocked Xperia™ devices.

The login window appears because the customization.ini file is not placed in the right folder, or because its content has been changed.

1. Make sure that the customization.ini file is placed in the installation folder, as described in the section "install the flash tool for Xperia™".
2. Check that the content of customization.ini is not changed in any way. If you open the file with notepad, it should contain:

```
developerworld/enable = true
```

If the problem remains after you take these two steps, we recommend that you uninstall the flash tool for Xperia™, and then redo the installation as described under "how to download and install the flash tool for Xperia™ " above.

how do I unlock my phone?

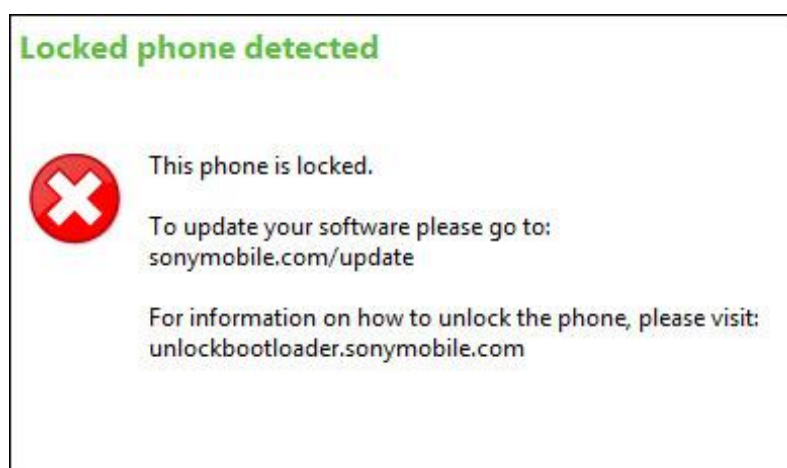


Figure 3. Error message when you try to connect a phone with a locked boot loader.

If you connect a phone with a locked boot loader, you will get the error message shown in Figure 3. To update the software of a locked phone, please go to sonymobile.com/update.

For information on how to unlock your phone, visit unlockbootloader.sonymobile.com. Please note that unlocking the boot loader may void the warranty of your phone.

how do I know if my phone is supported by this tool?



Figure 4. Error message when you try to connect a phone that is not supported in the flash tool for Xperia™.

If you connect a phone that is not currently supported by the flash tool for Xperia™, you will get the error message shown in Figure 4. For a list of all supported phones, see <http://developer.sonymobile.com/flashtool>.

my phone is not detected, what do I do?

If your phone doesn't show up in the flash tool for Xperia™ within a few seconds after you connect it to your computer, the tool has not detected your phone. The flash tool for Xperia™, Emma, should be open when you connect your phone.

When you connect your phone to your computer to use it in the flash tool for Xperia™, the phone must be turned off and you must hold the flash key, while connecting it to the computer. Flash keys vary between models, and for a complete key mapping, see <http://developer.sonymobile.com/flashtool>.

Also, you should always connect the USB cable to your computer before connecting the phone to the USB cable.

can I use the flash tool for Xperia™ offline?

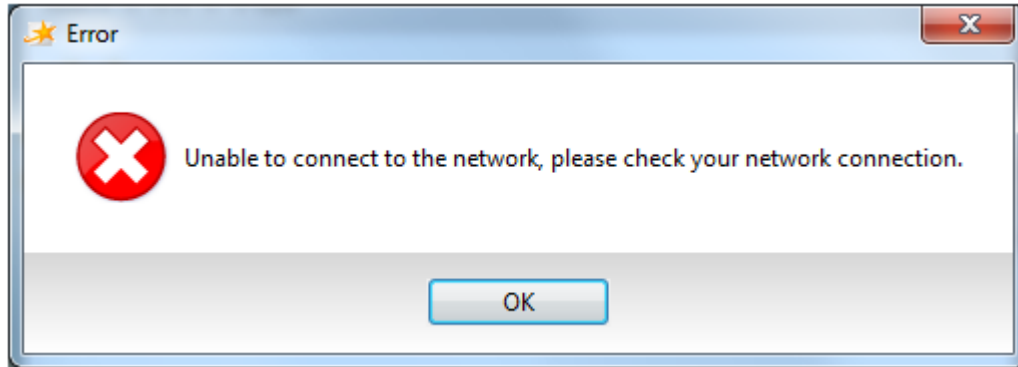


Figure 5. Error message when the flash tool for Xperia™ is unable to connect to the Internet.

No, in order to use the flash tool for Xperia™ you need a working Internet connection. Please check your Internet connection and try again.

is the service not available in my area?

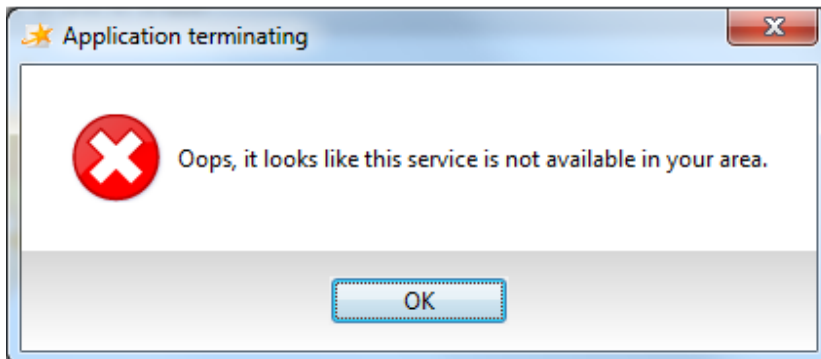


Figure 6. Error message when the service is not available in your area.

Due to distribution restrictions, the flash tool for Xperia™ service is not available in the following countries: China, Cuba, Iran, North Korea, Burma, Sudan and Syria.

what does “region could not be identified” mean?

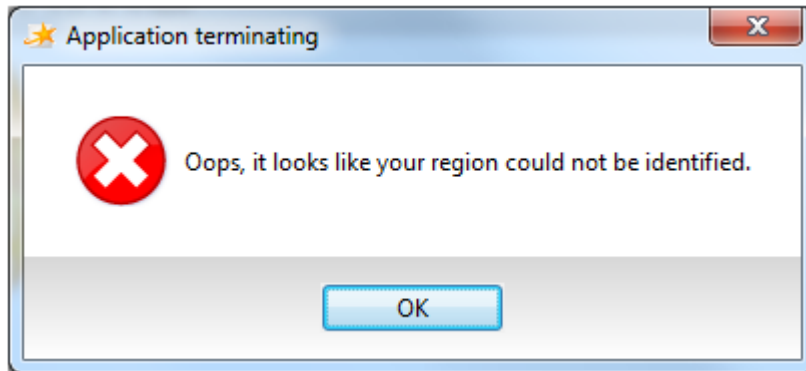


Figure 7. Error message when your region can't be identified.

If you receive the error message shown in Figure 7, it is because your IP number could not be detected. The flash tool for Xperia™ uses your IP number to identify what area you are located in. This means that the flash tool for Xperia™ does not work behind a proxy that makes your IP number anonymous. For example, some VPN solutions may cause this error. Please try again without using VPN or a proxy.

more information

You can download the flash tool for Xperia™ and learn more on Developer World at <http://developer.sonymobile.com/flashtool>.