# Sugar on a Stick 3 Creation Kit

**A simple guide on how to create SoaS**

sugar on a stick

**Sebastian Dziallas**

# Sugar on a Stick 3 Creation Kit
# A simple guide on how to create SoaS
# Edition 2

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This guide describes how to prepare and create Sugar on a Stick and different platforms and refers to important steps to take care off. It will also be of help in case you plan to redistribute Sugar on a Stick.

# Preface

To whom it may concern,

Congratulations! You have successfully taken the first step on your way to running the latest version of the highly-acclaimed Sugar Learning Environment: this is Sugar on a Stick — a tool to enable children to reclaim computers. Sugar on a Stick aims to make it easy for you, no matter whether you are child, parent, or local deployer to provide each student with a small device (USB stick or thumbdrive) that can start any computer with your personalized Sugar environment. We would like to see Sugar's presence, journal, and clarity principles usable on any machine — at school, at home, and anywhere there is a suitable computing device. We hope that this guide proves helpful and makes it easier to prepare Sugar on a Stick for your use. Enjoy your experience with Sugar on a Stick!

Sebastian Dziallas

Sugar on a Stick Project Leader

## 1. We Need Feedback!

Please share your feedback with us; it will help us to improve Sugar in subsequent versions of SoaS. Send an e-mail to the *Sugar on a Stick mailing list*[1] or join the *It is an Education Project mailing list*[2]. If you encounter any hardware-related issues besides the ones listed below, please consider joining our hardware effort. Submitting the specifications of your hardware helps us to work together with upstream to resolve any issues. Finally, you might also consider submitting bug reports at our *bug tracker*[3].

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[1] http://lists.sugarlabs.org/listinfo/soas
[2] http://lists.sugarlabs.org/listinfo/iaep
[3] http://bugs.sugarlabs.org

# Preparation

This chapter will demonstrate the stages required to prepare Sugar on a Stick on different platforms and guide you through them step by step. Please pay close attention to the instructions to make sure no loss of data occurs.

## 1.1. System Requirements

| Platform | Requirements | Notes |
| --- | --- | --- |
| Windows | Windows XP or higher | older versions may be unsupported |
| Linux | Fedora 12 or higher | other distributions may work |
| Mac | Mac OS X 10.6 or higher | a python 2.6 installation is required |

Table 1.1. Platforms

## 1.2. Windows Instructions
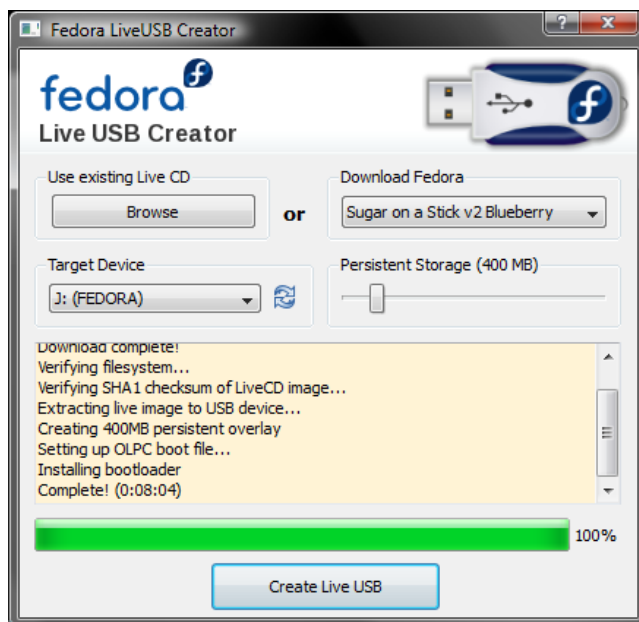


These instructions are intended for use with Windows XP or higher.

- Download the latest **Fedora LiveUSB Creator** from *https://fedorahosted.org/liveusb-creator/* and install it.

- Plug a blank target USB flash drive (or SD Card) into your computer (minimum 1-gigabyte).

- Launch LiveUSB Creator.

- Select **Sugar on a Stick v3 Mirabelle** in the drop-down menu on the upper-right side to download the liveUSB disk image. Alternatively, download Mirabelle *here*[1], then hit the Browse button and select the downloaded file.

- Set the Persistent Storage slider to the maximum. This enables you to save the child's work in Sugar onto the device.

> **Important**
>
> If you repeat this installation on a device after having saved some Sugar work or changes, all Sugar work and changes will be lost.

You may allocate as much storage as there is capacity on your device. You may allocate less than the maximum, if you want to use some of the device storage when not booting Sugar.

- Select your flash drive as the target and click the **Create Live USB** button.

- Wait for the process to finish, then close the LiveUSB Creator program.

- Stop your flash drive using the **Safely Remove Hardware** dialog and eject it.

# 1.3. Linux Instructions

These instructions are intended for use with current Linux distributions. Supported examples include recent versions of Fedora, as well as of Ubuntu. Due to the numerous distributions out there, we cannot guarantee support for all of them, but are hoping to provide instructions for as many of them as possible and are looking forward to hearing your experiences with other distributions.

## 1.3.1. Fedora

- Execute this command as root:`yum install liveusb-creator`

- Plug a blank target USB flash drive (or SD Card) into your computer (minimum 1-gigabyte) and follow *Section 1.2, "Windows Instructions"*.
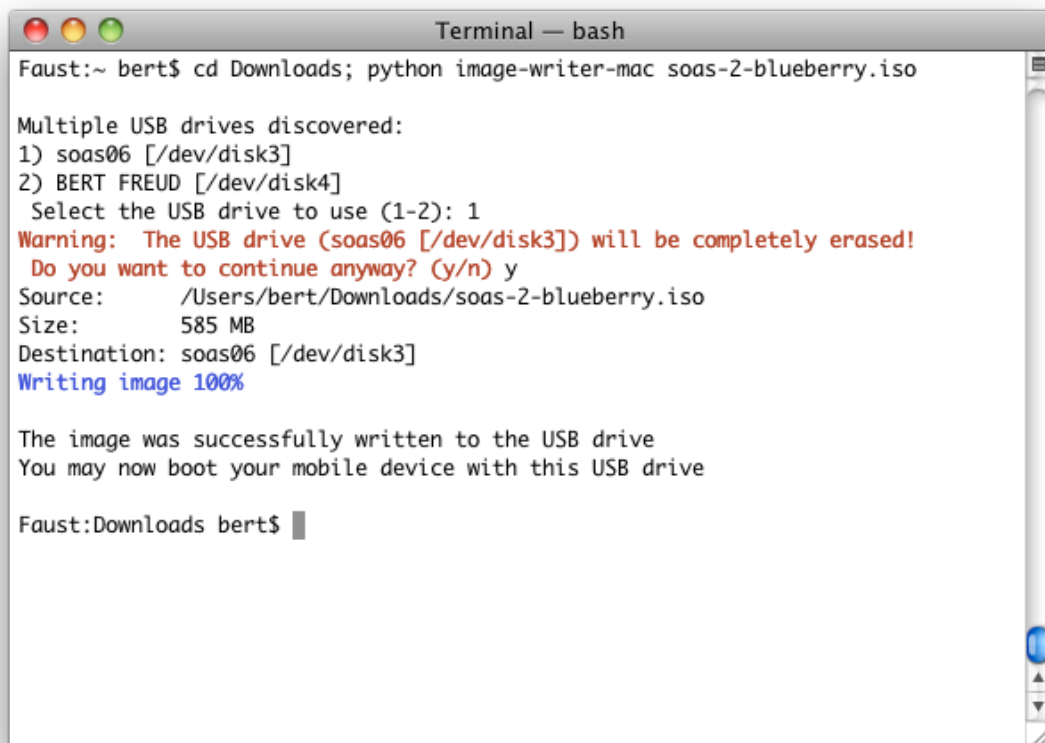
## 1.3.2. Other Linux Distributions

For a graphical way of putting SoaS on a USB stick, we recommend using **UNetbootin**. Since version 393, it is able to create Fedora Live USB sticks, the technology Sugar on a Stick is using. Please feel free to get in touch with us about your experiences.

- Please check the *upstream website*[2] for the latest version and use either the packages your distribution provides or the generic file.

- Download the Sugar on a Stick image from *here*[3].

- Open UNetbootin and plug a USB stick with a size of at least 1G in.

- Click on **Diskimage** and select and open the .iso file you just downloaded for Sugar on a Stick above.

- Select your USB device and click **OK** to proceed with the creation process. After a couple of minutes, your USB key should be ready.

# 1.4. Mac Instructions

```
Terminal — bash
Faust:~ bert$ cd Downloads; python image-writer-mac soas-2-blueberry.iso

Multiple USB drives discovered:
1) soas06 [/dev/disk3]
2) BERT FREUD [/dev/disk4]
 Select the USB drive to use (1-2): 1
Warning:  The USB drive (soas06 [/dev/disk3]) will be completely erased!
 Do you want to continue anyway? (y/n) y
Source:      /Users/bert/Downloads/soas-2-blueberry.iso
Size:        585 MB
Destination: soas06 [/dev/disk3]
Writing image 100%

The image was successfully written to the USB drive
You may now boot your mobile device with this USB drive

Faust:Downloads bert$ ▌
```

These instructions are for creating a stick on Mac OS X. This stick will be usable on Linux and Windows machines, but may not be bootable on Mac machines, so while creating a stick using a Mac is supported, booting a stick on a Mac is not officially supported yet and is still marked as experimental. You will also find further information in the *wiki*[4].

> ### Note
> This way of preparing Sugar on a Stick does not create a persistant overlay. This means that you will not be able to keep the data you created in Sugar after reboot.

- Download the Sugar on a Stick image from *here*[5].

- Download the image-writer tool for Macs from *here*[6].

- Plug a blank target USB flash drive (or SD Card) into your computer (minimum 1-gigabyte).

- Execute the following command in Terminal: **cd Downloads; python image-writer-mac soas-3-mirabelle.iso**

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[4] http://wiki.sugarlabs.org/go/Sugar_on_a_Stick/Mac

> **⚠ Warning**
>
> If you proceed here, your flash drive will be wiped and you will lose all data on it.

- The script will output a device name; confirm that it matches with your flash drive.

# Appendix A. Revision History

Revision 3      Sat May 22 2010                Sebastian Dziallas *sdz@sugarlabs.org*

Implement further changes suggested by Mel Chua

Revision 2      Sat May 22 2010                Sebastian Dziallas *sdz@sugarlabs.org*

Final commits before Mirabelle release
Update creation content for Linux and Mac

Revision 1      Sun Feb 14 2010                Sebastian Dziallas *sdz@sugarlabs.org*

Included information about preparing Sugar on a Stick

Revision 0      Sat Feb 13 2010                Sebastian Dziallas *sdz@sugarlabs.org*

Initial creation of book by Publican