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# **Sugar Documentation**

***Release***

**SugarLabs**

July 30, 2015



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# sugar on a stick



In this Activity we describe one way to load Sugar on to a USB Stick.

We are using the Fedora Spin named **Sugar on a Stick**, or **SoaS** for short. The tutorial contains some links like the one above, which, if you are online, will take you to useful pages on the internet. If using the Activity use the **Back button** at the top of the screen to return to your previous page or use the **Home button** to return to this page.

[Sugarlabs](#) wiki is a source of more information about Sugar.



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**OLPC laptop**

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Sorry, but it is not possible to make Sugar on a Stick using this method on an OLPC laptop.



### The contents

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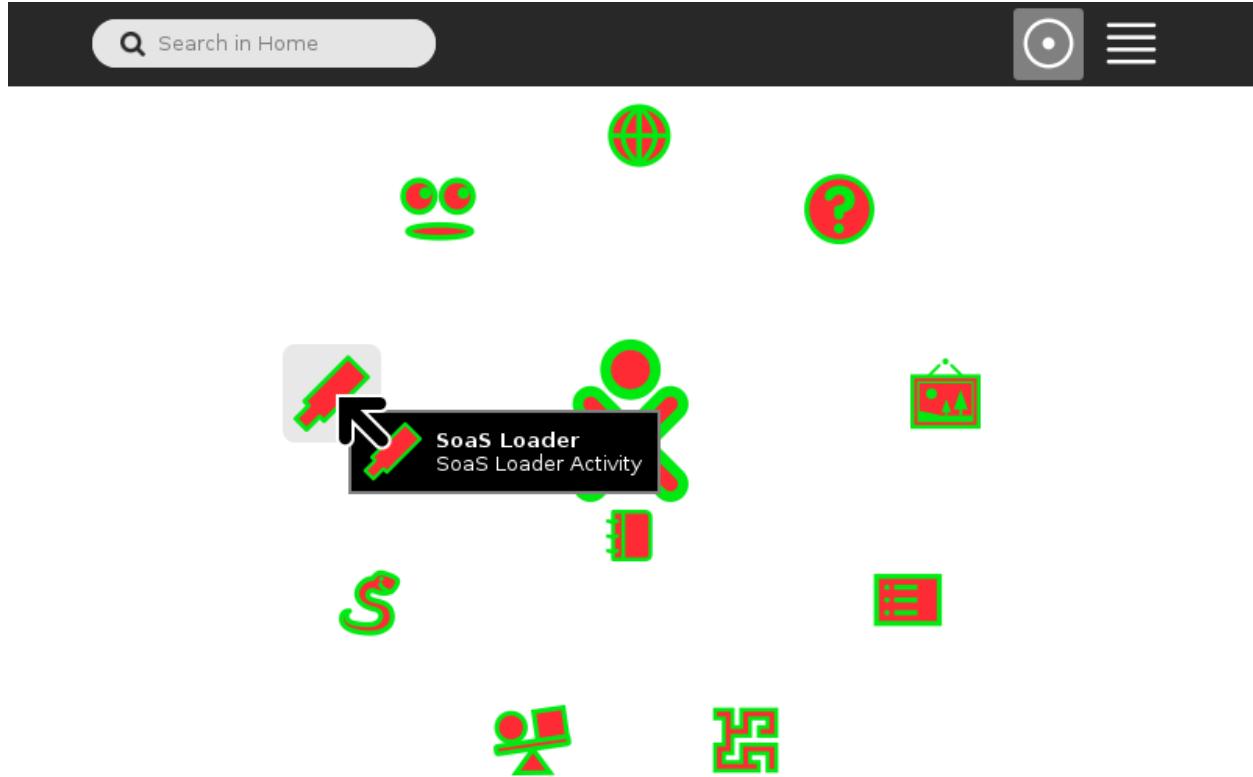
## 2.1 Introduction

The first pages of this tutorial are aimed at new Sugar Learners. If you are familiar with Sugar, the work starts at [Getting to work](#).

To make Sugar on a Stick by this method **you must be running a SoaS Live CD or other LiveOS host media**. The page, [Prerequisites](#), reviews how to obtain this. This presentation assumes you are running that environment.

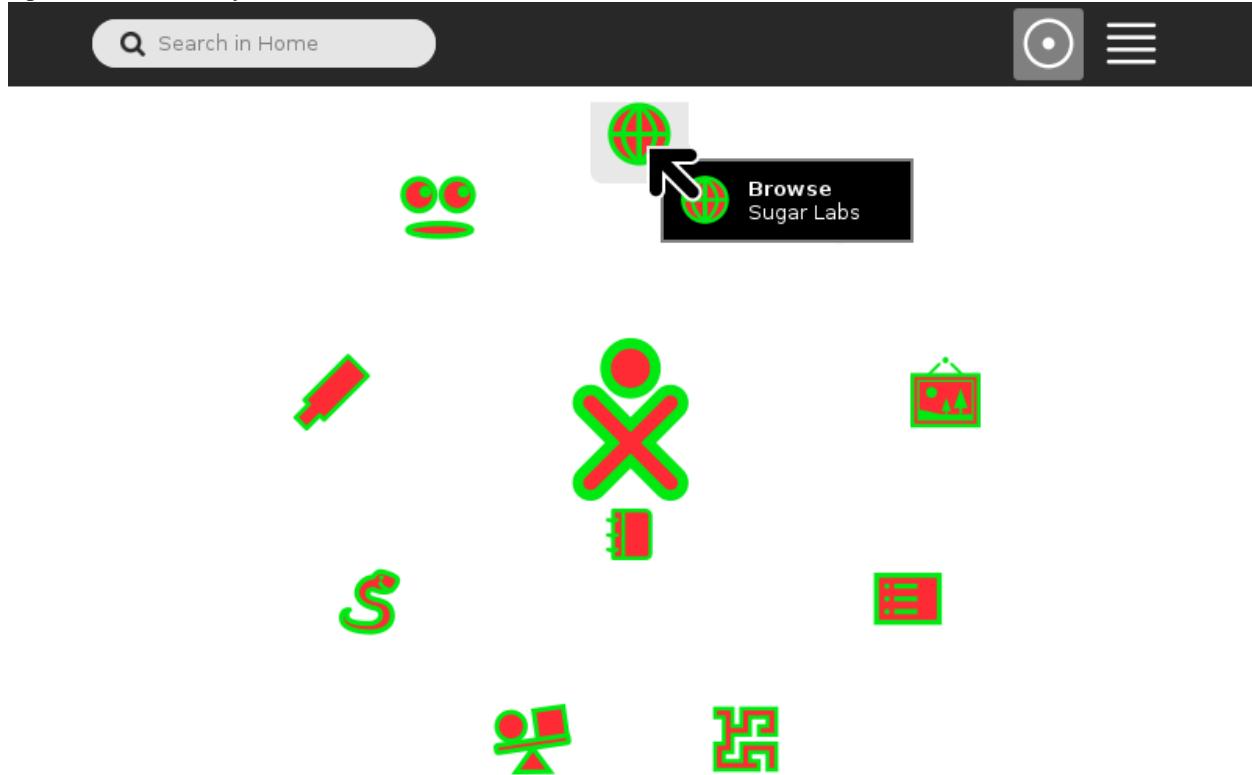
You will need a clean USB memory stick, to use as the target device. There is a suitable command for a 2 GB or a 4 GB stick.

The **Activity**, SoaS Loader, is started from the F3, Home View:



### 2.1.1 To use the online version

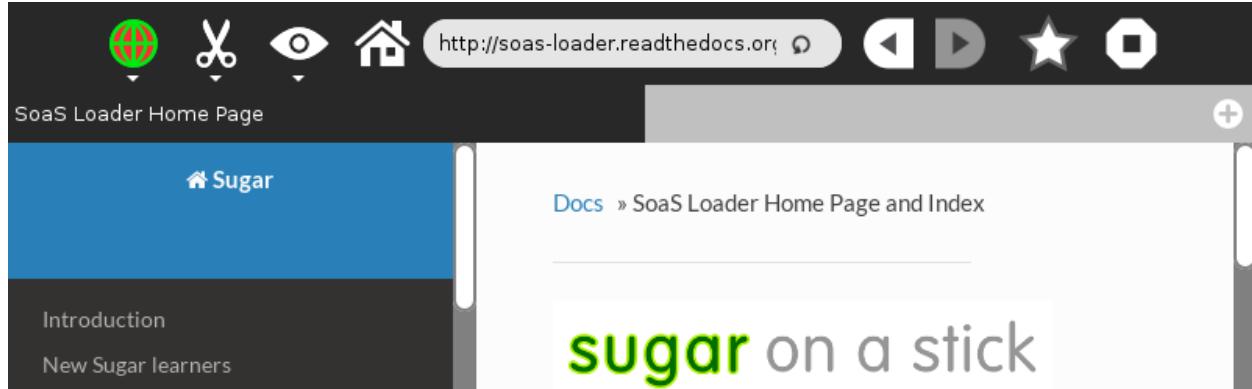
Open Browse Activity.



In the address bar, type

```
http://soas-loader.readthedocs.org
```

the presentation opens.

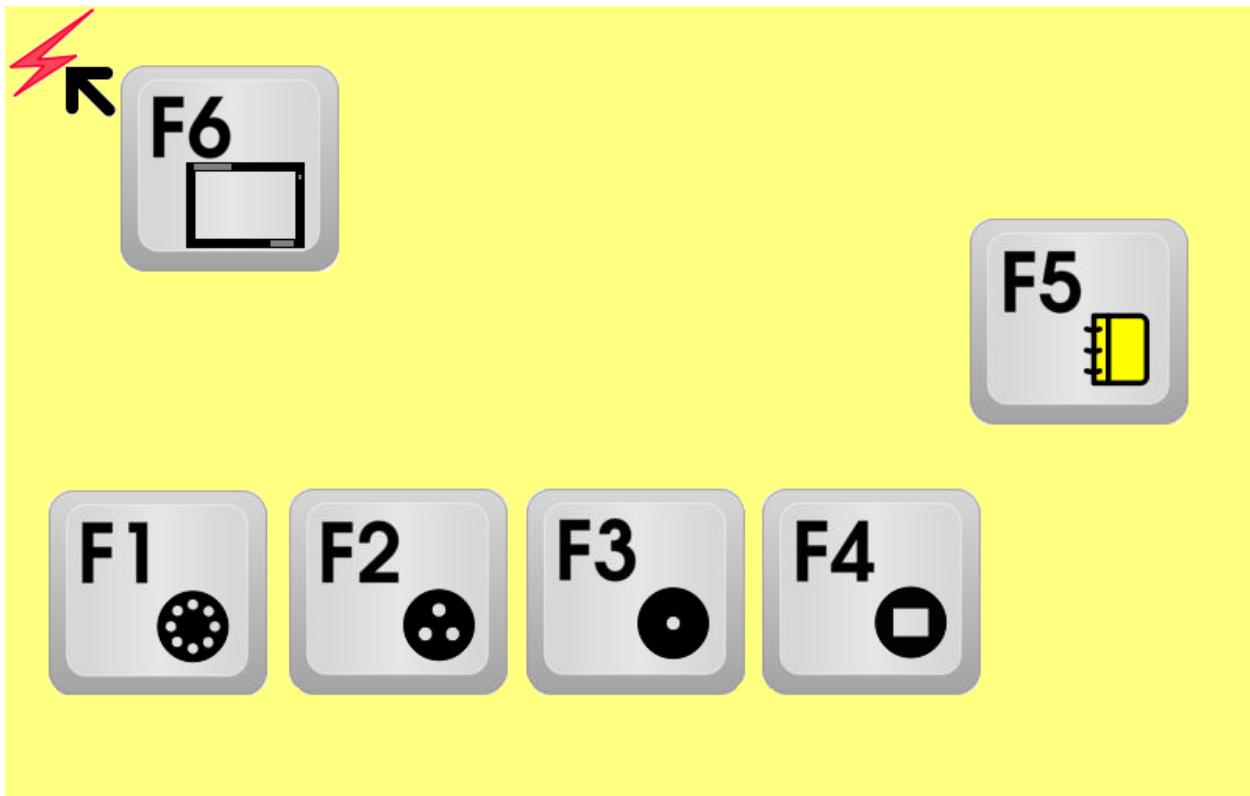


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## New to Sugar

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### 3.1 New Sugar learners



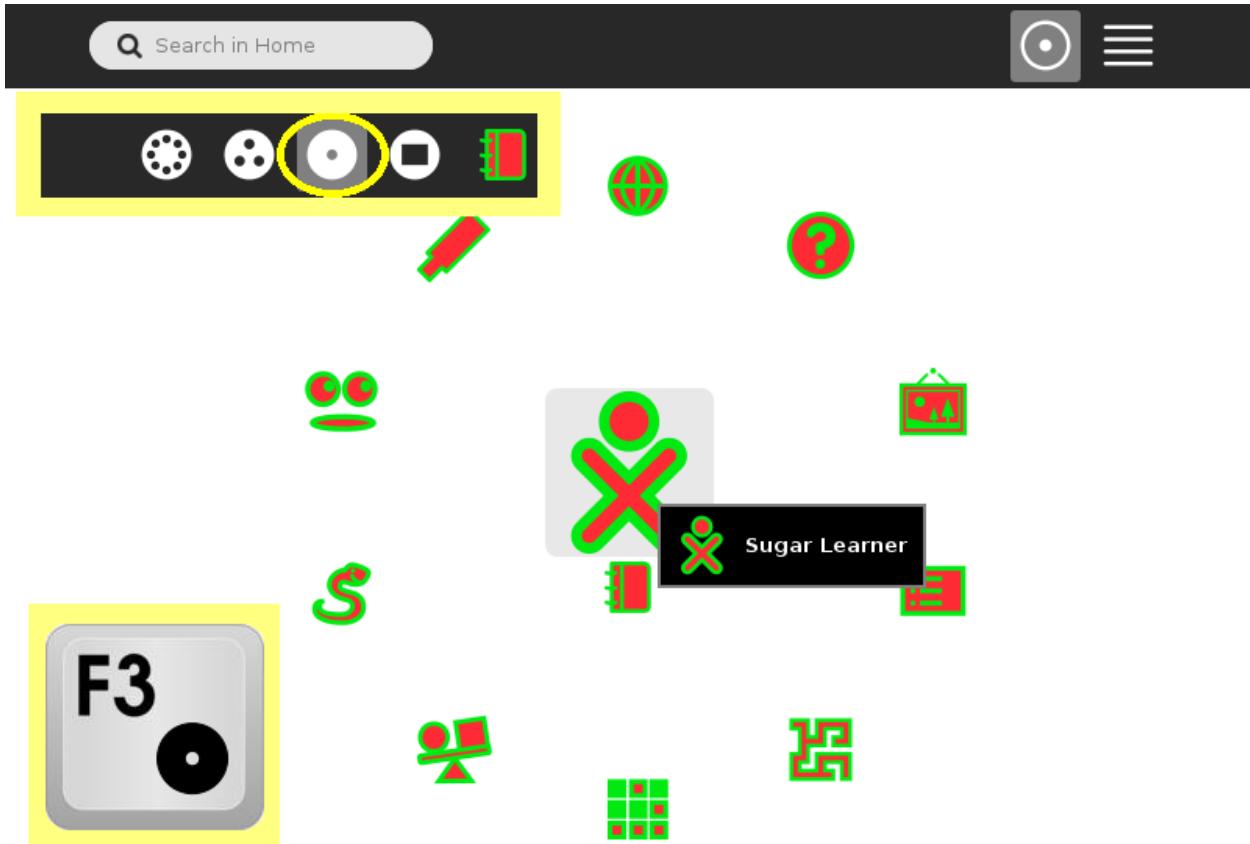
On the next slide we see **F3, Home view, Favourites**. This shows your “favourite” Activities listed in a wheel.

In Sugar you can visit that view now by pressing the function key **F3, Home view**.

You can return to this page by pressing the function key **F4, Activity view**.

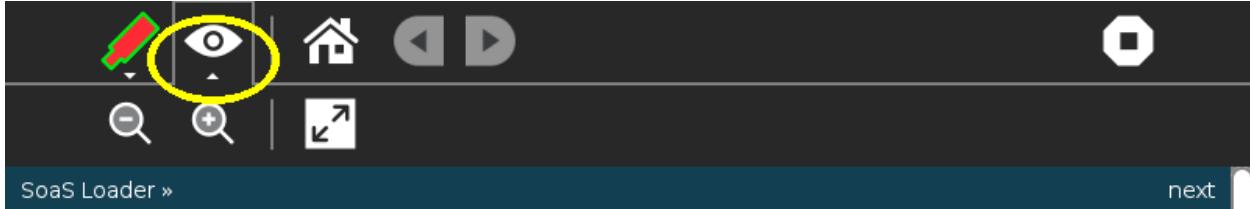
*Function keys are the keys along the top of your keyboard, numbered F1 to F12.*

## 3.2 F3, Home View, Favourites



## 3.3 View toolbar

Please use the View toolbar to get the best view of the page.



Zoom in, zoom out, or Full screen are possible.

### 3.3.1 Next up, Help Activity

If you are still new to Sugar you will find lots of help in the Activity Help, explored in the next slides.

In Sugar we never “Double Click” icons. A single click is correct.

We can hover the cursor over an icon to reveal what the icon or button does. Usually a click of the “secondary” mouse button, right click, shows an extended list of options for that icon.

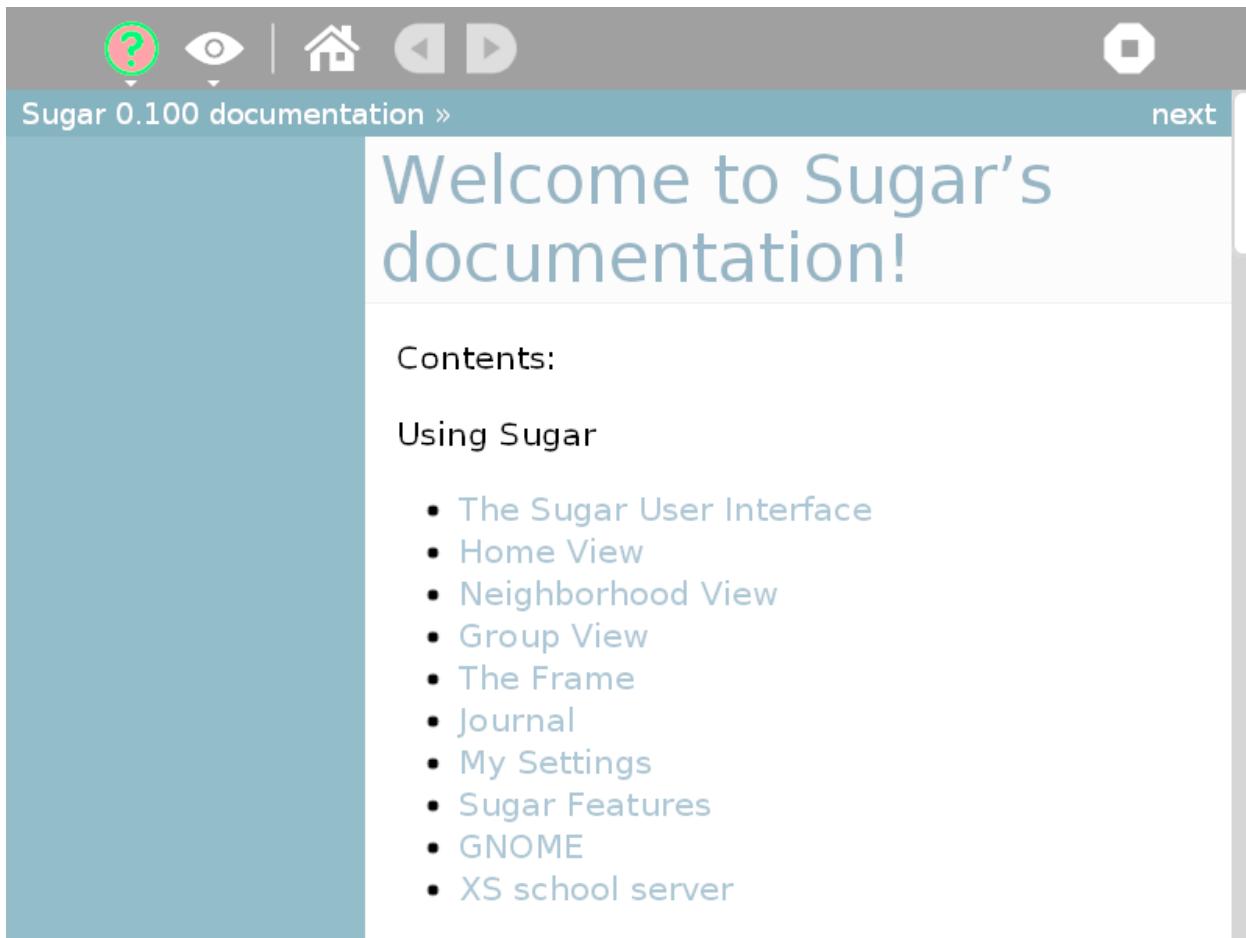
### 3.4 Click on the Help Activity icon

Pressing the Help Activity icon, resumes Help.

A right click displays all options, in this case, resume or Start new



### 3.5 Help Activity opens at Home page



### 3.6 The Frame

The Frame is essential to navigating in Sugar.

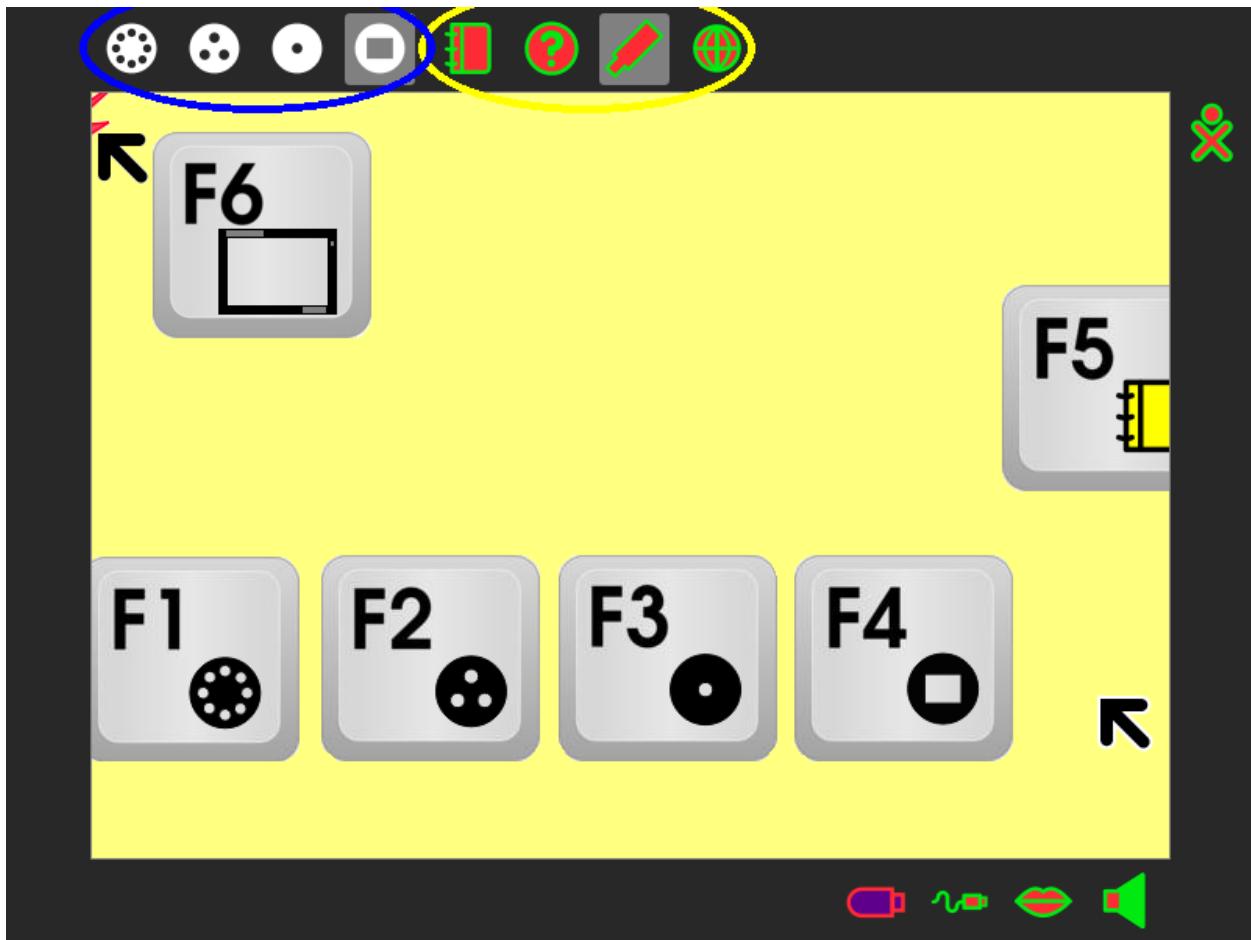


Access the Frame with the function key, **F6**, **Frame key**, or by moving the cursor to the “hot” corners of the screen.

If you are new to Sugar look up the Frame in Help Activity.

In the next screen shot, the Frame is brought in over an image we saw earlier.

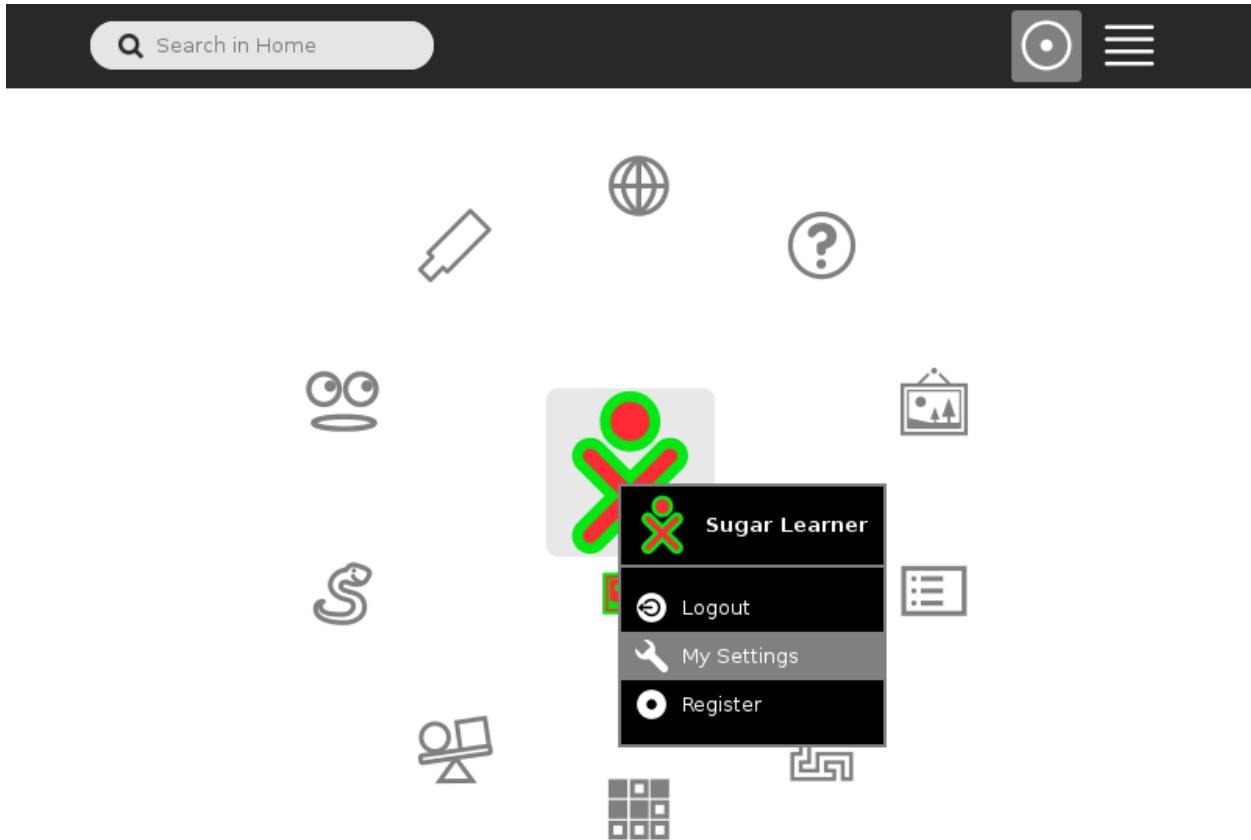
### 3.7 Navigating with the Frame



Looking at the top centre of the Frame, highlighted yellow, we see the following icons, indicating Activities running: Journal, Help, SoaS Loader, Browse. SoaS Loader on a grey background is Active, the others are running in the background.

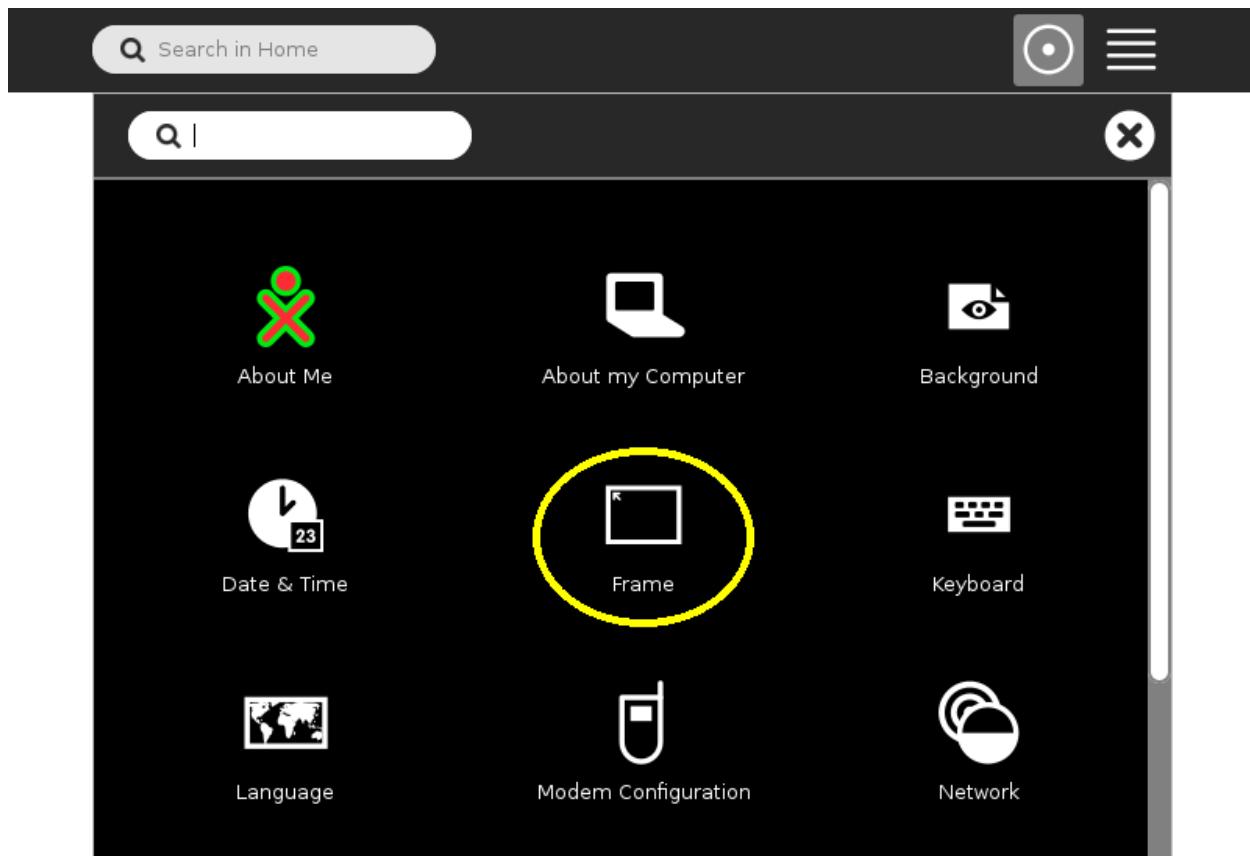
Looking at the top left of the Frame, highlighted blue, we see icons representing the four views in Sugar: Neighbourhood view, Group view, Home view, Activity view. Activity view on a grey background is Active.

### 3.8 You might want to find My Settings

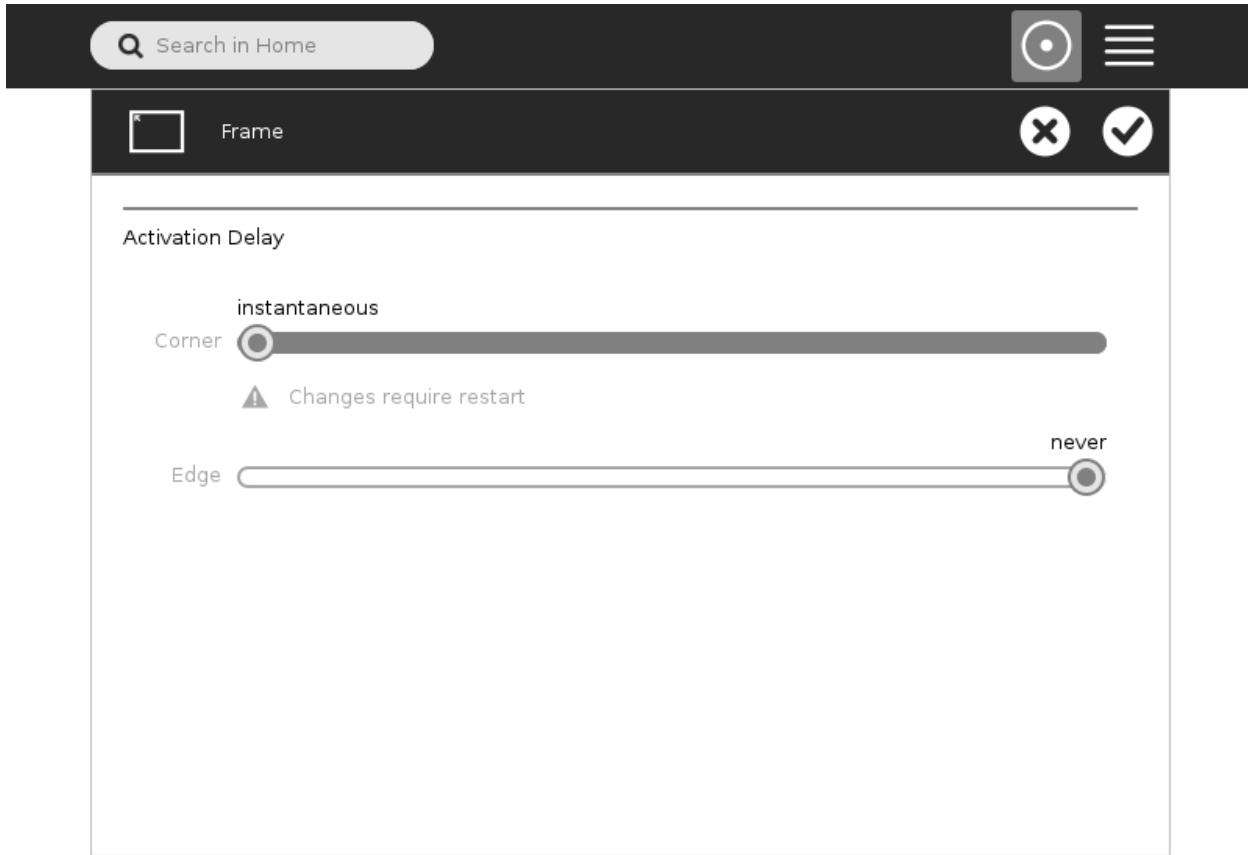


### 3.9 My Settings screen

You can change Frame settings.



## 3.10 Frame settings

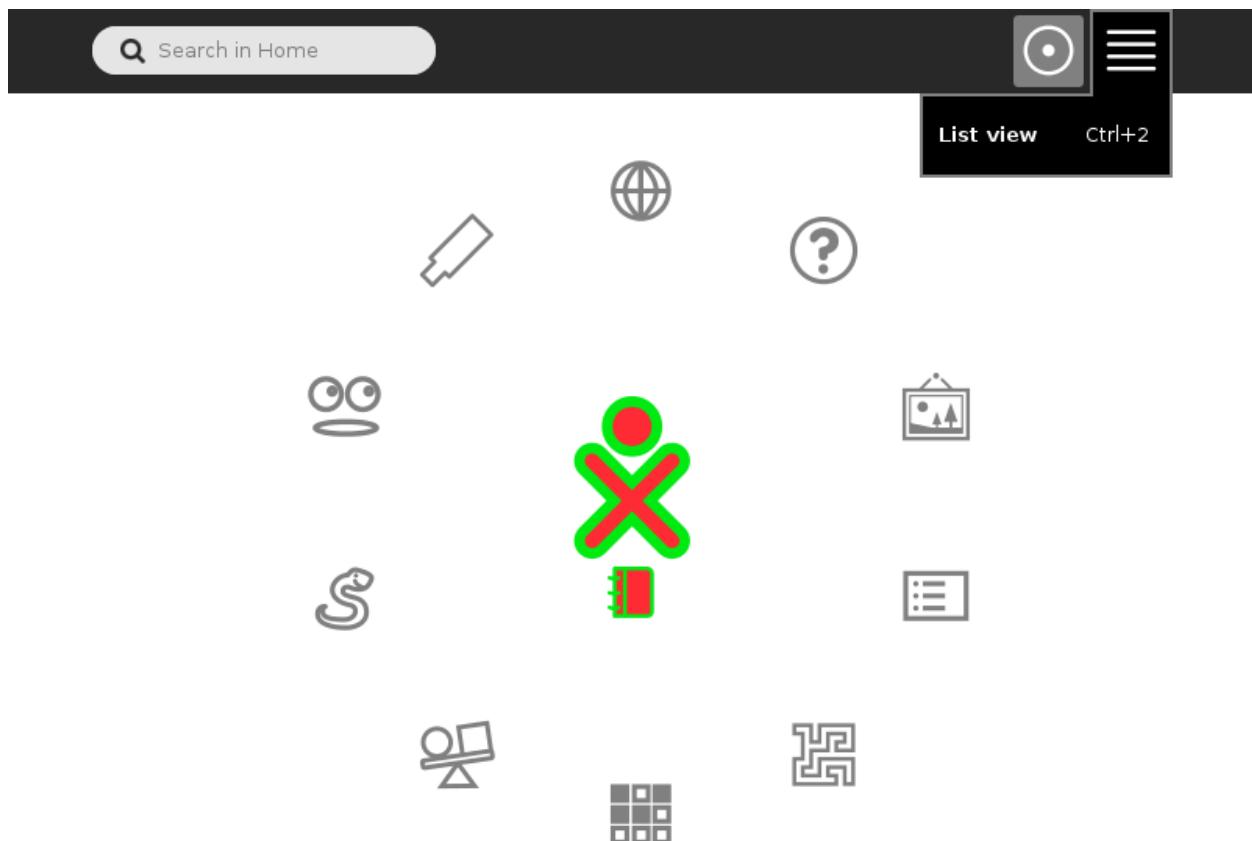


## 3.11 Unhide the Terminal Activity

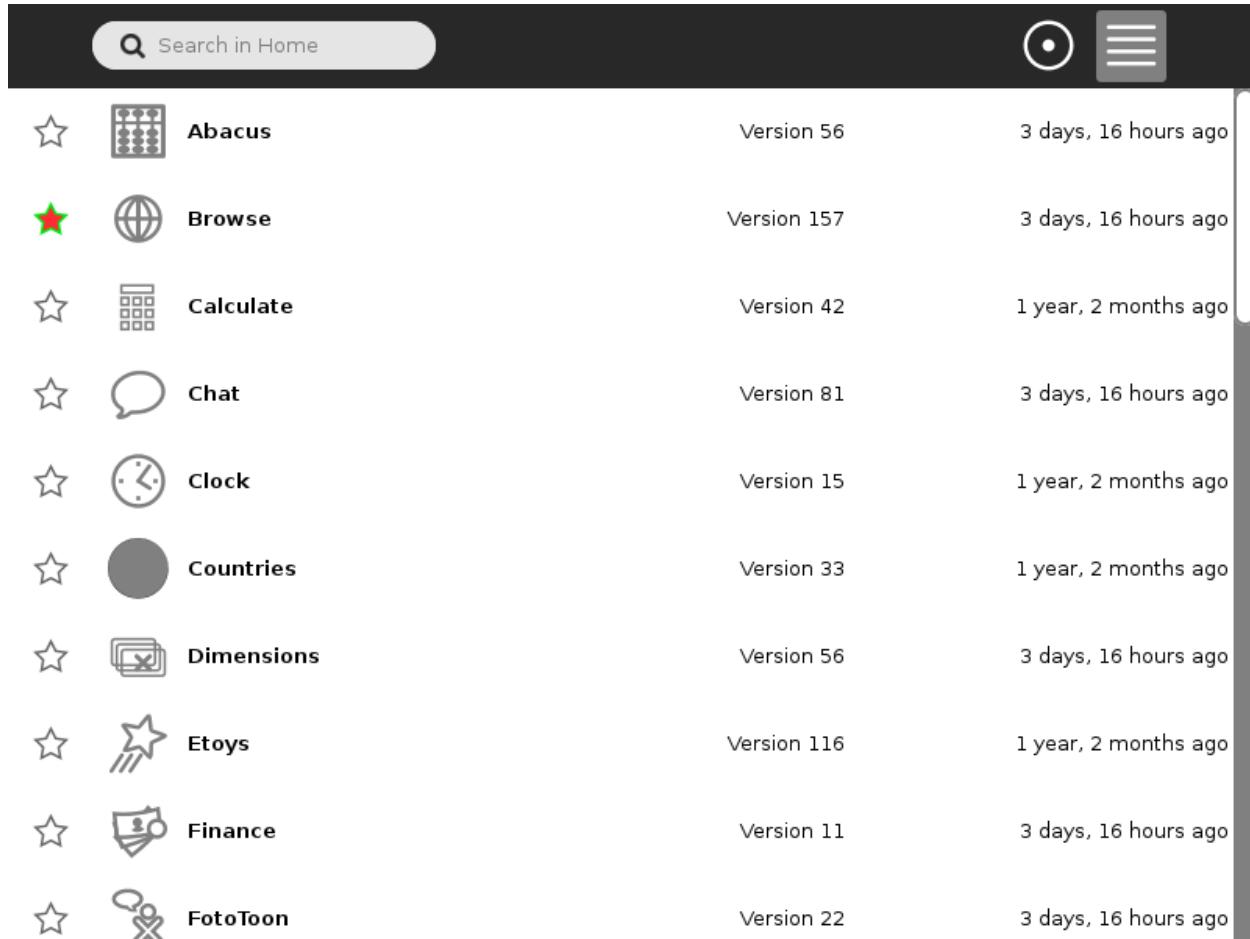
Your newly started version of Sugar (by default) does not include the Terminal Activity in the favourites wheel.



Go to **F3, Home view**, click on the **List view** button on the top right of the screen.

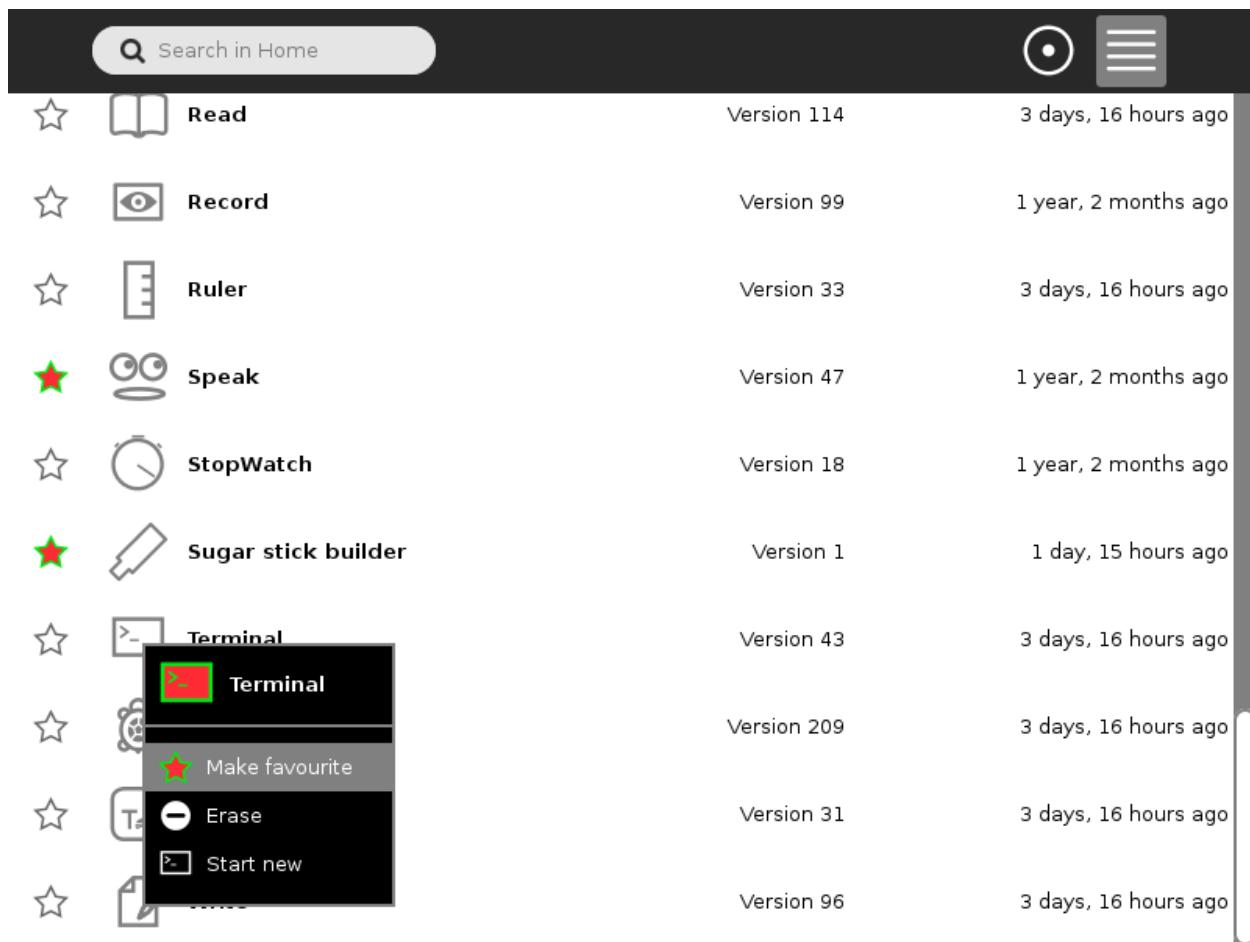


## 3.12 F3, Home view, List



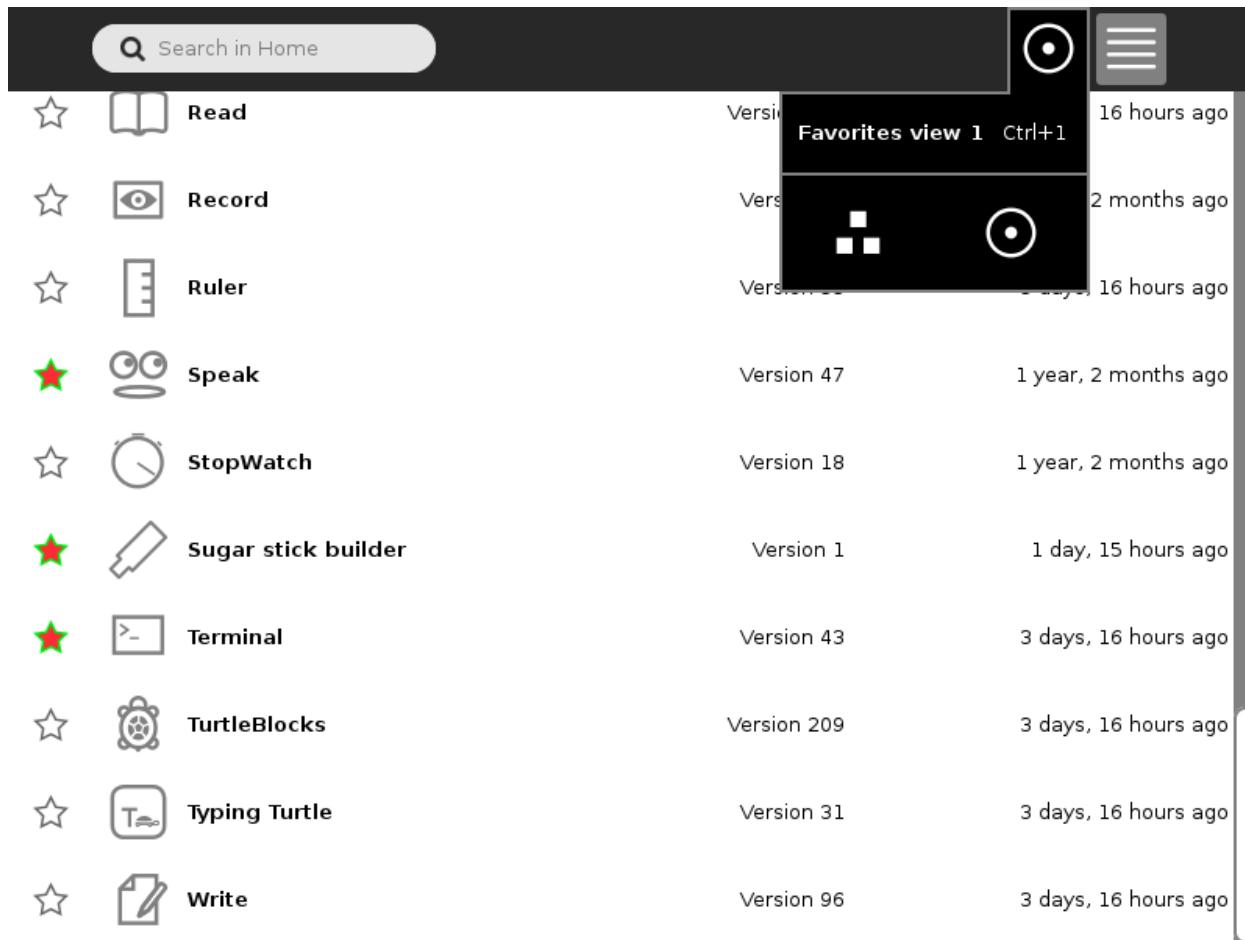
## 3.13 Scroll down

Scroll down the list of Activities, till you see Terminal Activity near the foot of the page. Right click on the Terminal Activity icon to reveal options, and click on **Make favourite**.



### 3.14 Return to the wheel view

Click on the **Favourite view** button on the top right of the screen.



### 3.15 Click on the Terminal Activity icon

Starts (or resumes the last) Terminal Activity.

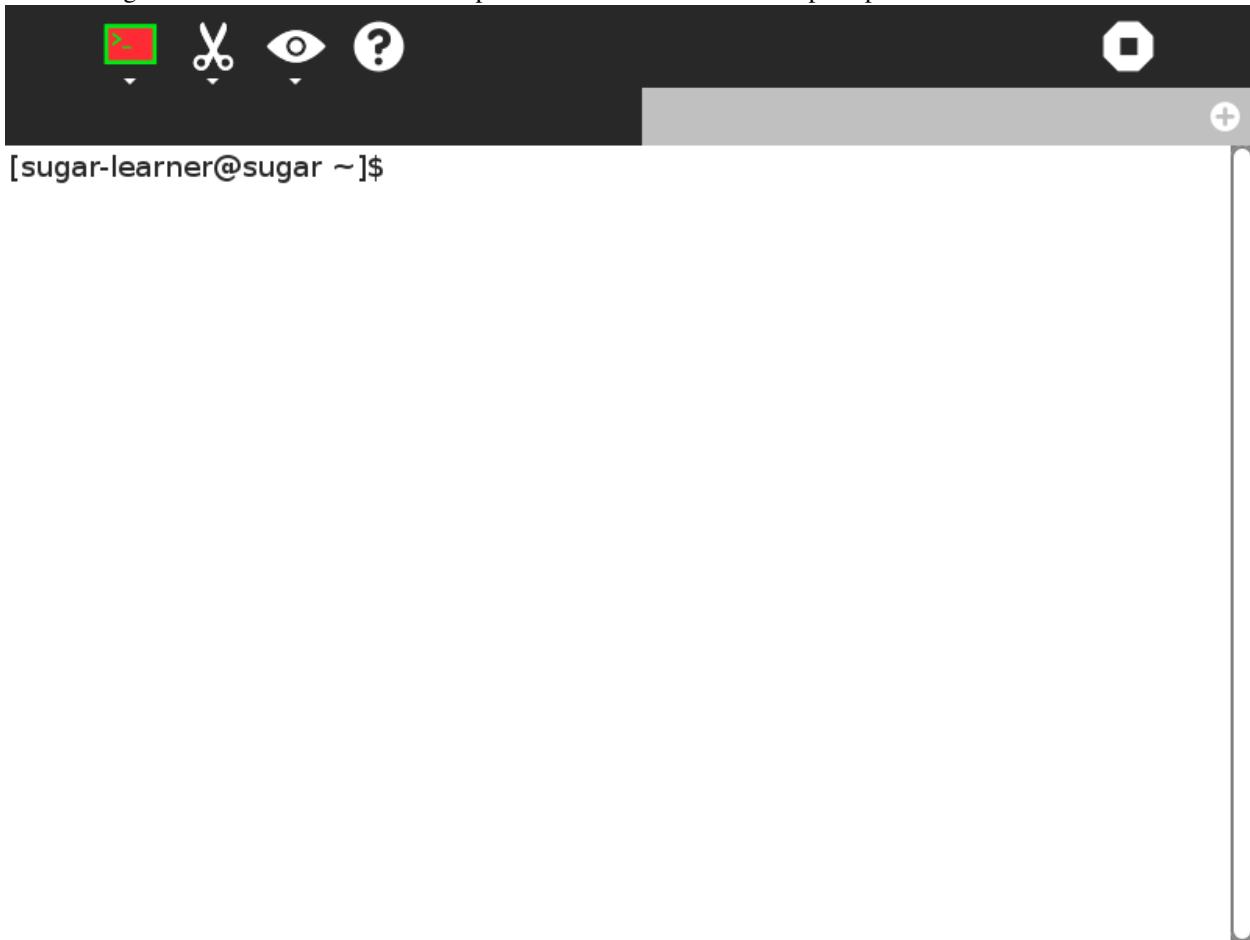
If you are new to the Terminal, Help Activity is your friend, and contains a useful chapter in the section Activities.



In this image we see a secondary mouse click (right click) **Start new**.

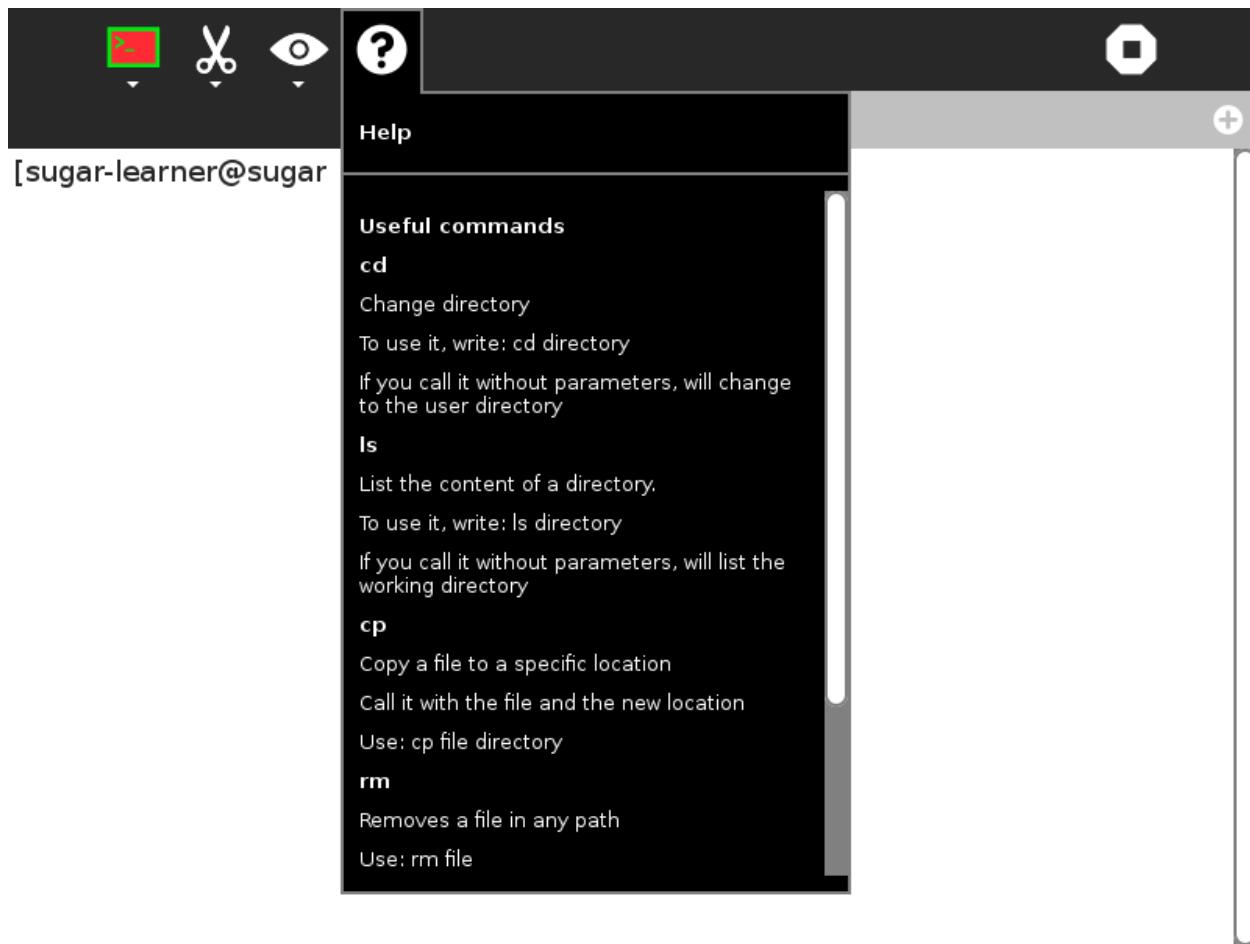
### 3.16 Terminal Activity, ready

The flashing cursor sits at the end of a short piece of text. This is called the prompt.



### 3.17 For help in Terminal Activity

Press the Help icon in the centre of the tool bar to reveal a short help file.

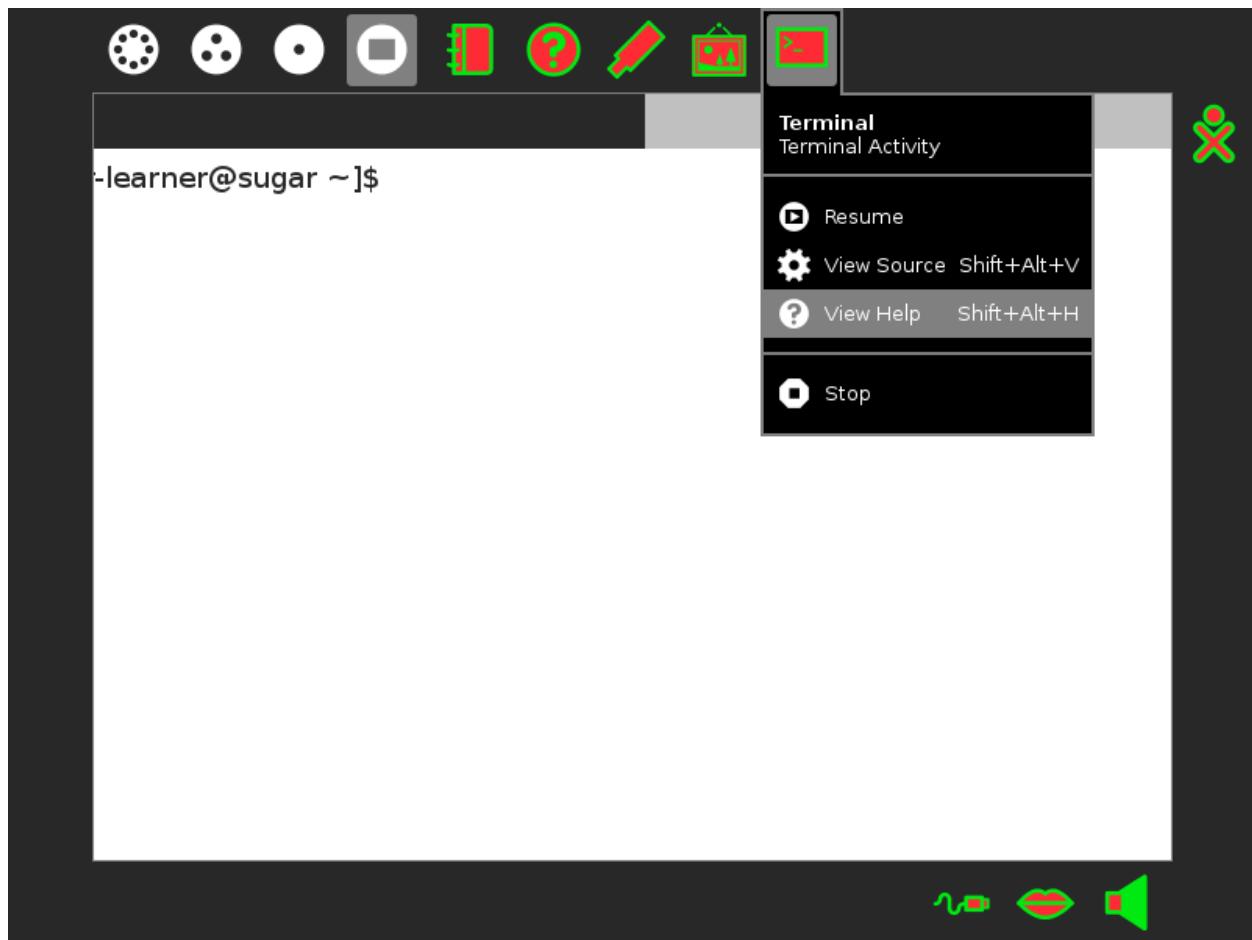


### 3.18 Further help

Bring in the Frame with the **F6, Frame key** ([The Frame](#)).

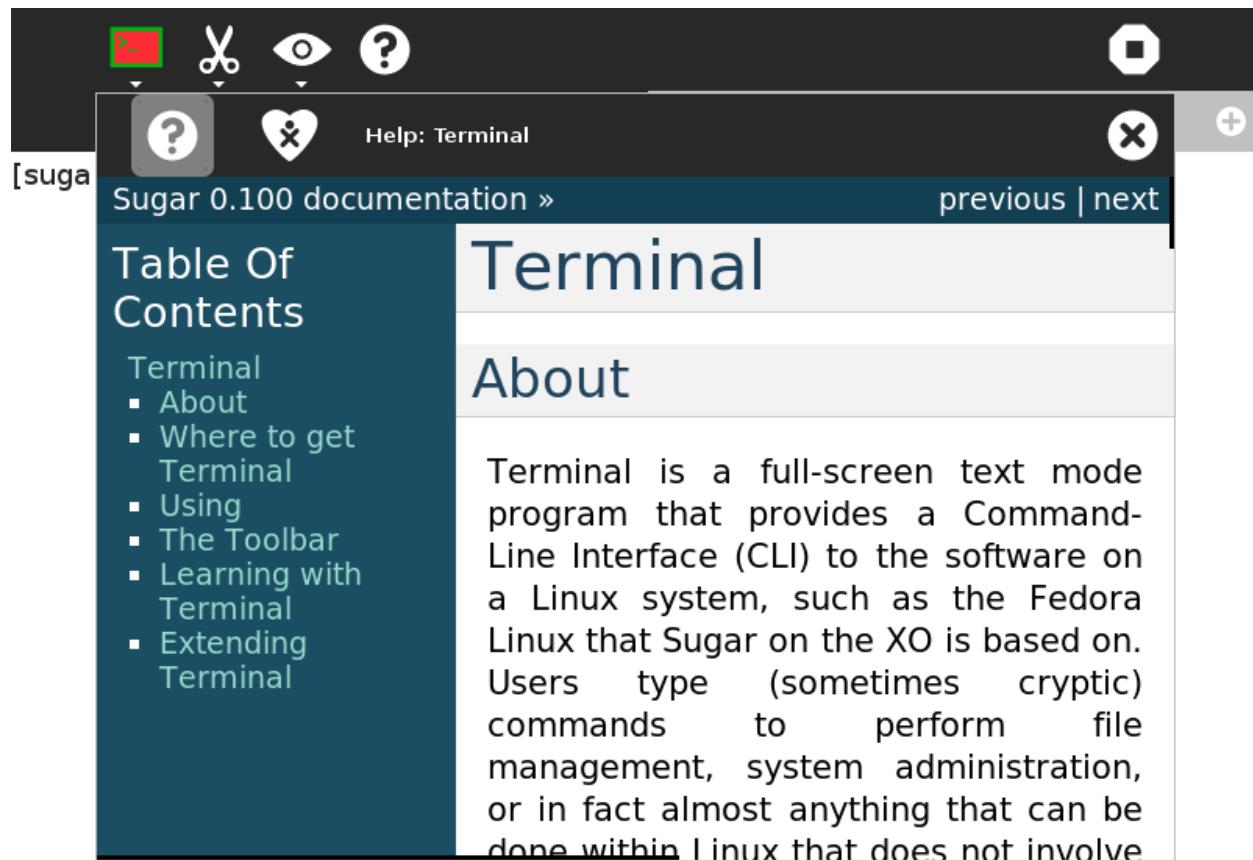


**Right click** on Terminal Activity icon, and click on **View Help**.



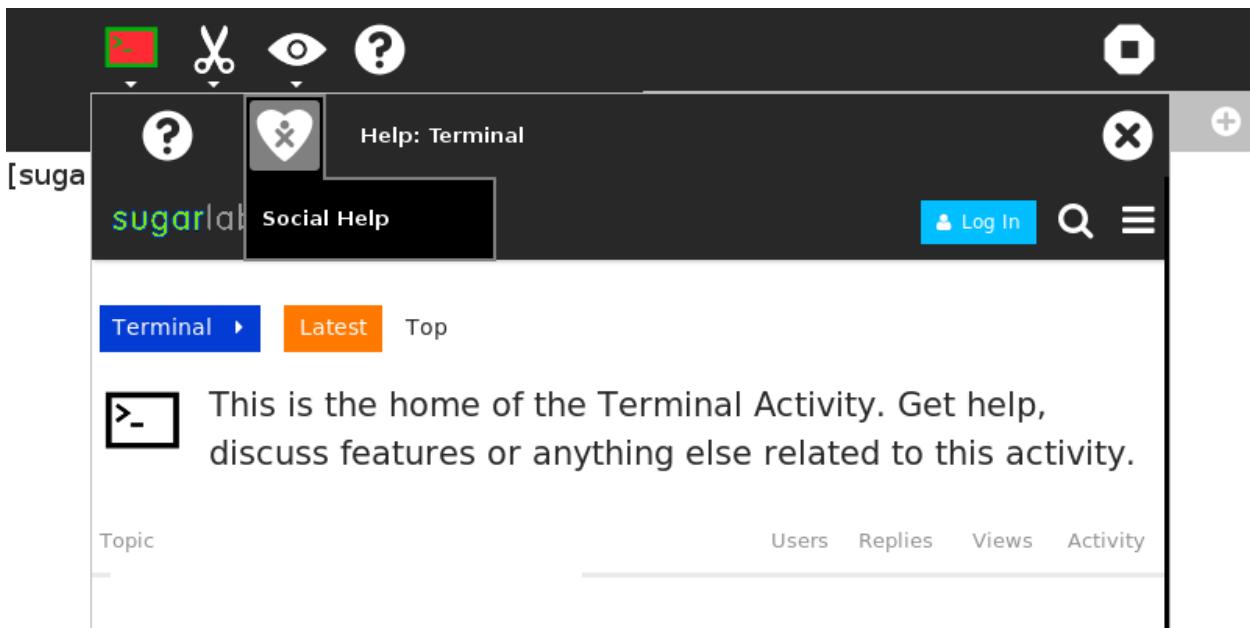
### 3.19 Context sensitive Help

The relevant page from Help Activity is now open in a window within the Terminal.

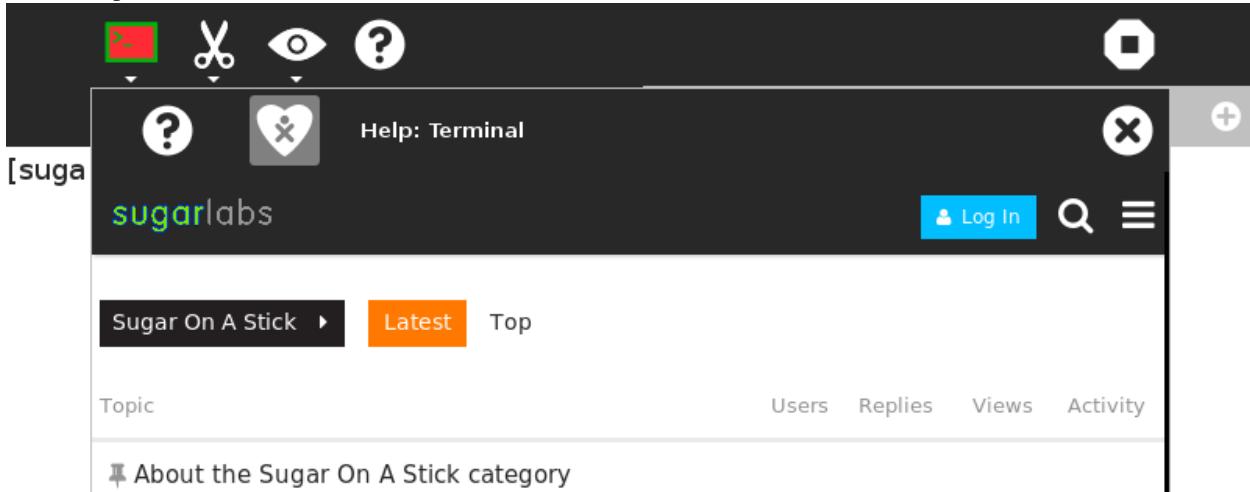


## 3.20 Social Help

Post questions on an open forum



for developers or other users to answer.



## 3.21 Keyboard shortcuts

**Copy** - the keyboard shortcut is **Ctrl + C** to copy.

**Paste** - the keyboard shortcut is **Shift + Ctrl + V** to paste into Terminal Activity.

(Also convenient is to press the centre mouse button to paste into a terminal.)

### 3.21.1 Workflow

You could type some or all of the commands provided into Terminal Activity.

This presentation shows these images:

- the command is selected from the page.
- the command is copied (with **Ctrl + C**).
- the command pasted into Terminal Activity with the Sugar Paste button.
- an image showing Terminal Activity after the command is run.

### 3.21.2 Terminal Activity, Edit toolbar, showing Paste button

The Terminal Activity includes an Edit toolbar, with Paste button.

You can choose whether you prefer to use **Shift + Ctrl + V** or the Paste button.



## Demonstration

---

### 4.1 Demonstrating copy and paste with date

Here is a simple command,

```
date
```

The computer's output from the command `date` is to print out the date.

In Sugar, if we want to copy and paste the above command into the terminal, we can take the following steps. The following slides demonstrate the process. We opened Terminal Activity earlier ([Click on the Terminal Activity icon](#)), it is running in the background.

Use the mouse to select the command.

Copy, use the keyboard shortcut **Ctrl + C** ([Keyboard shortcuts](#)).

Press F6, Frame key to bring in the Frame ([The Frame](#)).

Click on the Terminal Activity icon in the Frame.

Terminal opens.

Open the Edit tab.

Click the Paste button, the command `date` appears at the prompt.

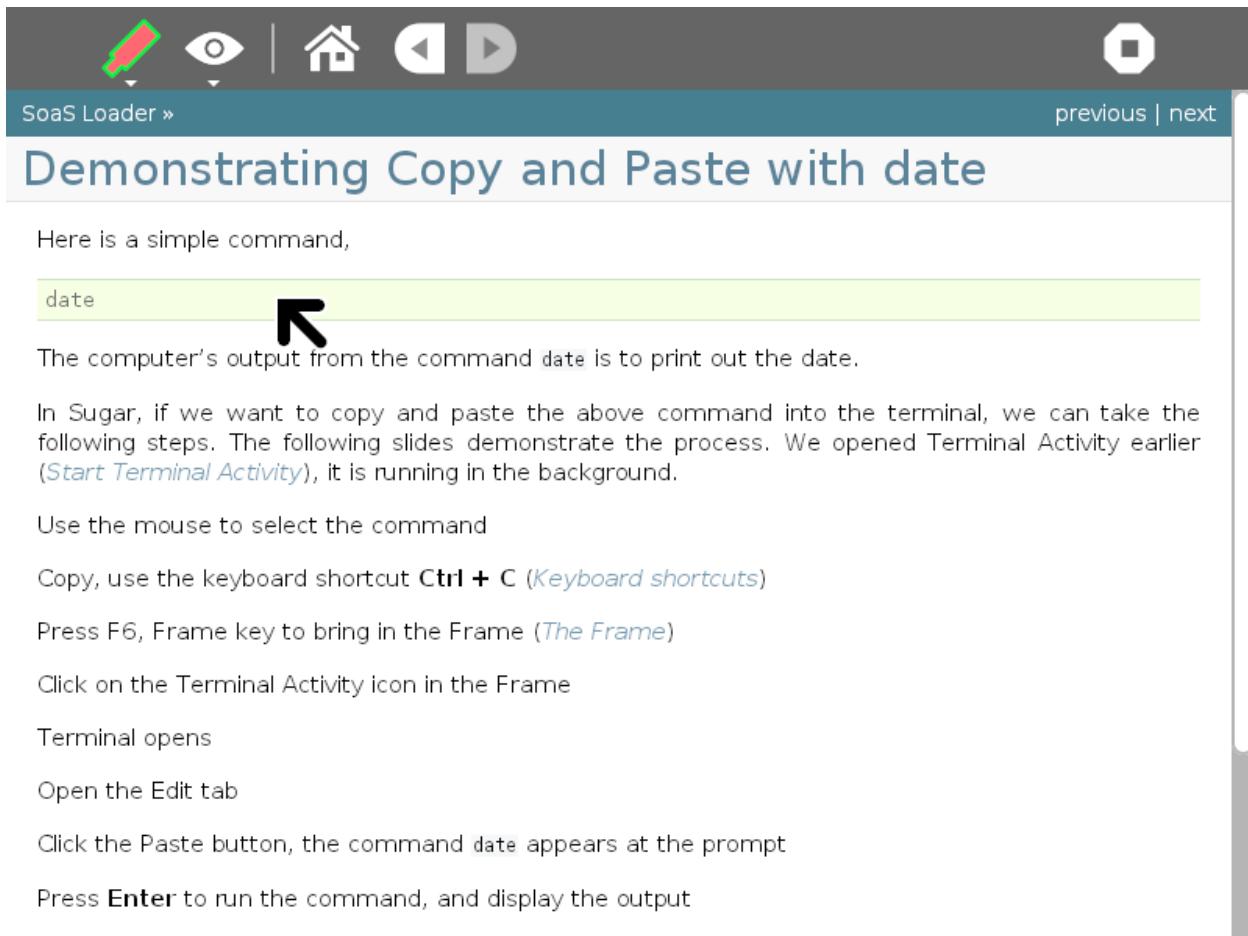
Press **Enter** to run the command, and display the output.

Press F6, Frame key to bring in the Frame again.

Press SoaS Loader icon to return to this tutorial.



## 4.2 Here is the command



Here is a simple command,

`date`

The computer's output from the command `date` is to print out the date.

In Sugar, if we want to copy and paste the above command into the terminal, we can take the following steps. The following slides demonstrate the process. We opened Terminal Activity earlier ([Start Terminal Activity](#)), it is running in the background.

Use the mouse to select the command

Copy, use the keyboard shortcut **Ctrl + C** ([Keyboard shortcuts](#))

Press F6, Frame key to bring in the Frame ([The Frame](#))

Click on the Terminal Activity icon in the Frame

Terminal opens

Open the Edit tab

Click the Paste button, the command `date` appears at the prompt

Press **Enter** to run the command, and display the output

## 4.3 Use the mouse to select the command



Here is a simple command,

`date`

The computer's output from the command `date` is to print out the date.

In Sugar, if we want to copy and paste the above command into the terminal, we can take the following steps. The following slides demonstrate the process. We opened Terminal Activity earlier ([Start Terminal Activity](#)), it is running in the background.

Use the mouse to select the command

Copy, use the keyboard shortcut **Ctrl + C** ([Keyboard shortcuts](#))

Press F6, Frame key to bring in the Frame ([The Frame](#))

Notice the clipping appears in bottom left corner of screen.

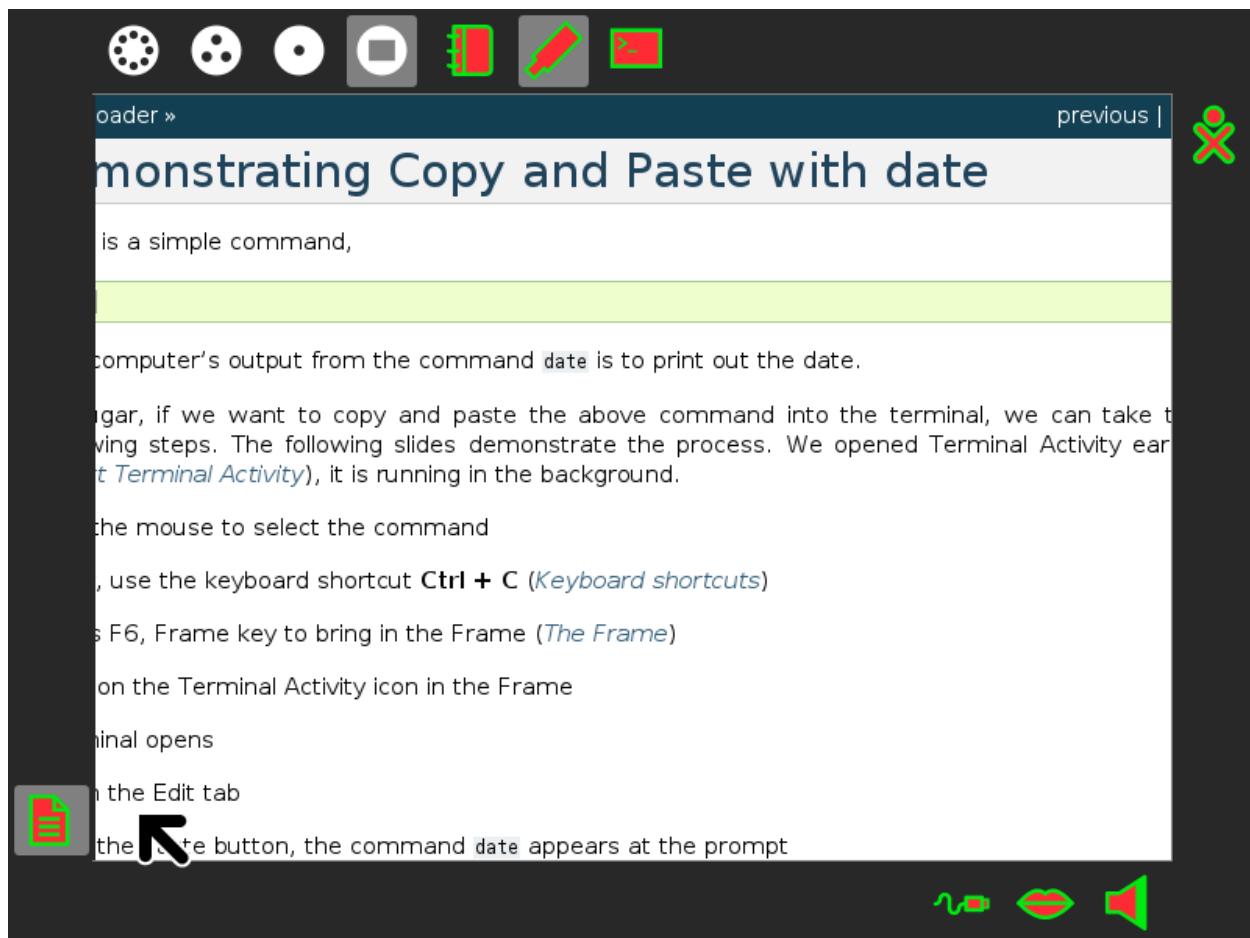
The screenshot shows the Sugar interface with the SooS Loader window open. The window title is "Demonstrating Copy and Paste with date". Inside, there is a text area containing the command "date". Below the text area, a list of steps is provided:

- Here is a simple command,
- date
- The computer's output from the command date is to print out the date.
- In Sugar, if we want to copy and paste the above command into the terminal, we can take the following steps. The following slides demonstrate the process. We opened Terminal Activity earlier ([Start Terminal Activity](#)), it is running in the background.
- Use the mouse to select the command
- Copy, use the keyboard shortcut **Ctrl + C** ([Keyboard shortcuts](#))
- Press F6, Frame key to bring in the Frame ([The Frame](#))
- Click on the Terminal Activity icon in the Frame
- Terminal opens
- Open the Edit tab
- Click the Paste button, the command date appears at the prompt

At the bottom left of the window, there are icons for a file and a terminal, with the text "E" and "T" next to them, indicating the current tabs selected.

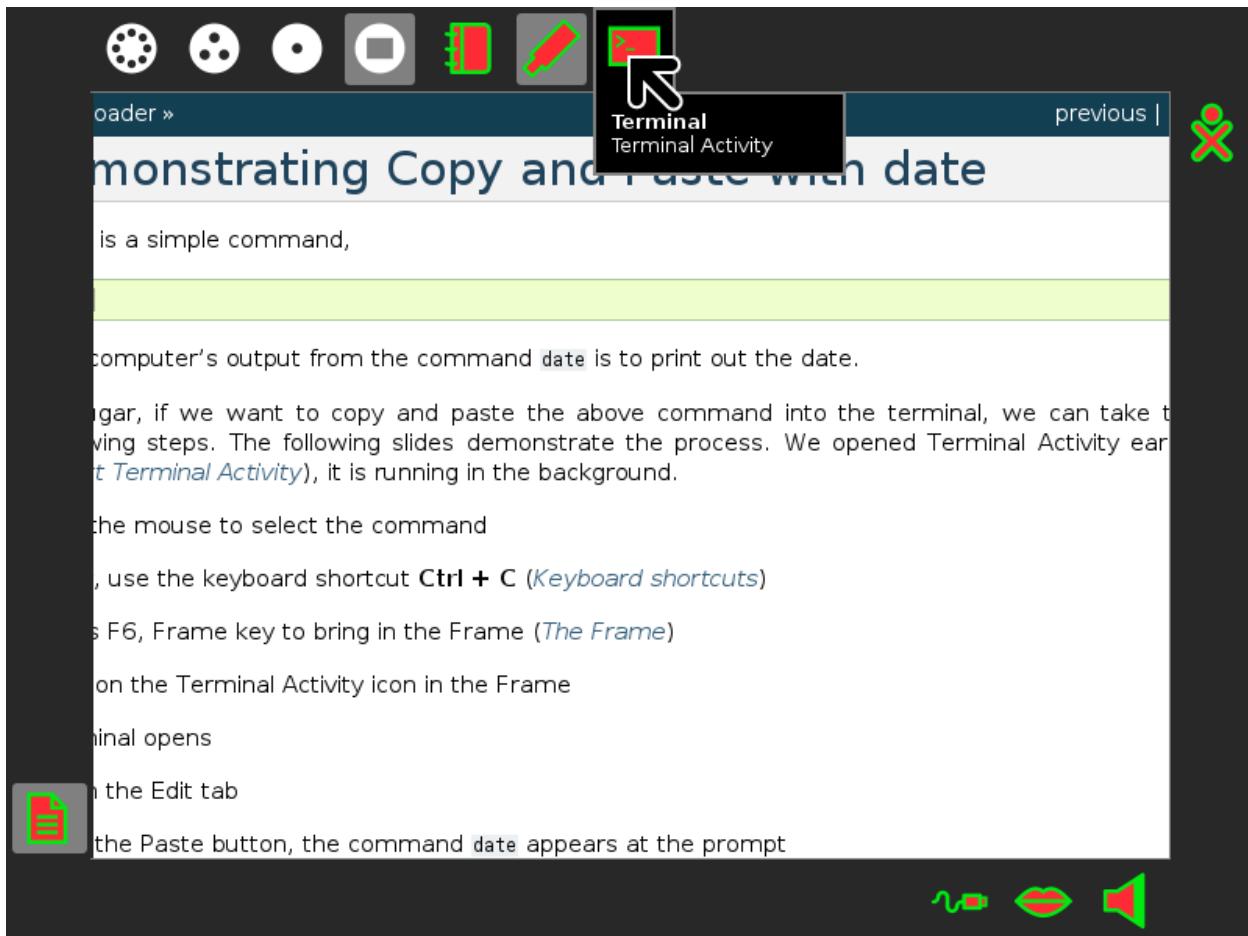
## 4.5 Press F6, Frame key

to bring in the Frame.





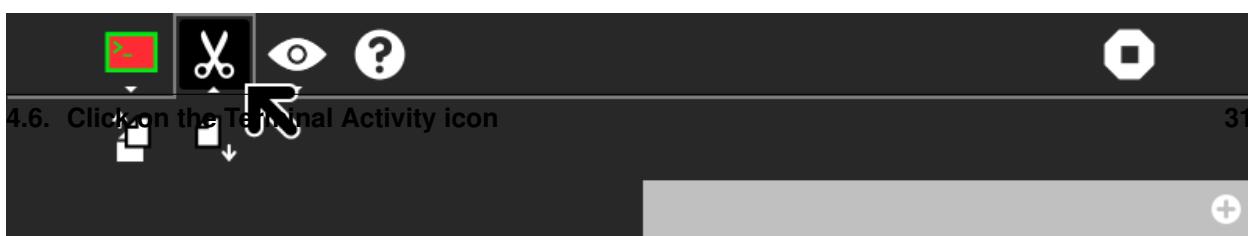
## 4.6 Click on the Terminal Activity icon



## 4.7 Terminal opens



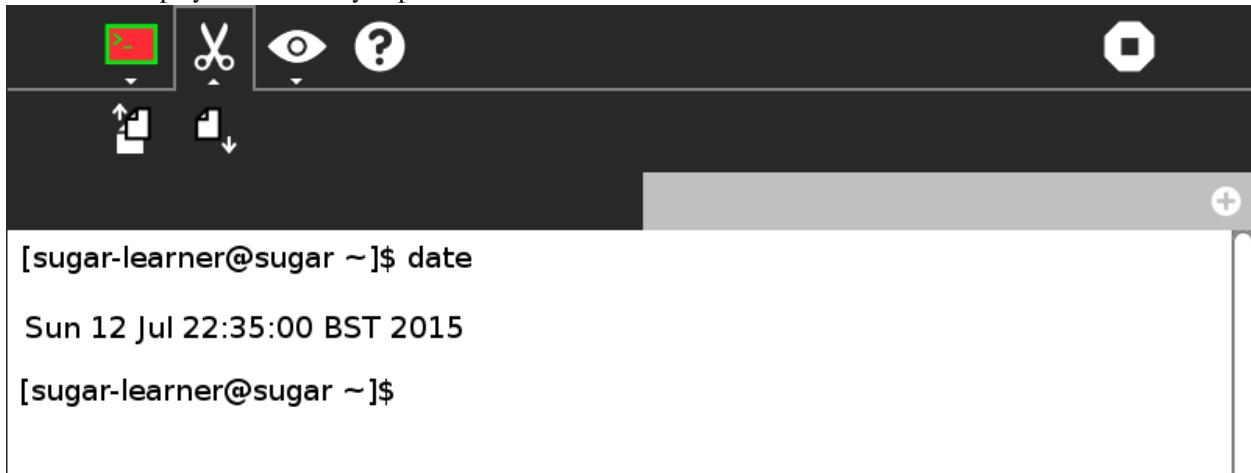
## 4.8 Open the Edit tab





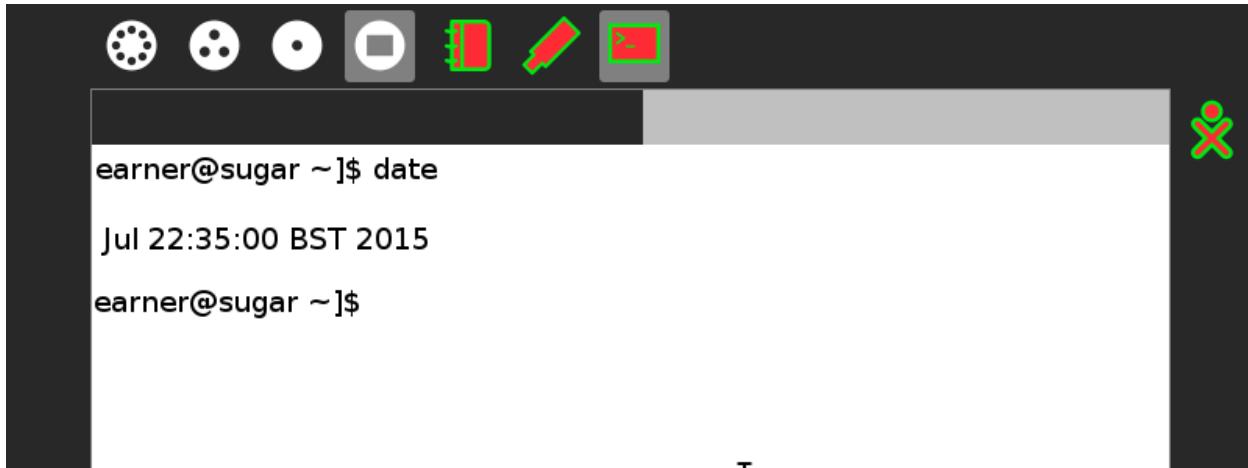
## 4.10 Press Enter

The date is displayed as soon as you press **Enter**.



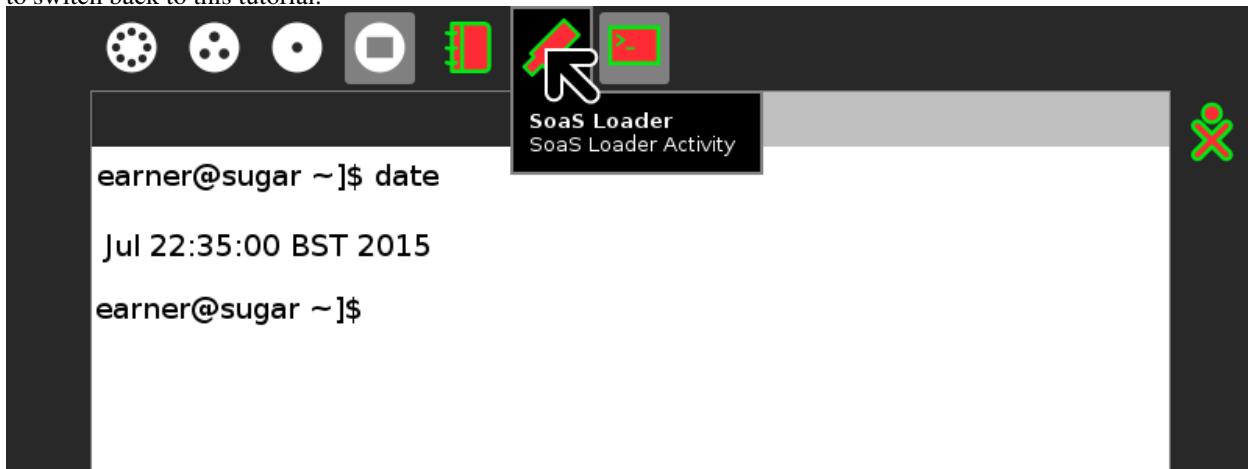
Notice, that the prompt returns, ready for the next command.

## 4.11 Press F6, Frame key



## 4.12 Press SoaS Loader icon

to switch back to this tutorial.



### 4.12.1 If this is all new

there are links to Help within Sugar in the section starting New Sugar learners.

## 4.13 Demonstration ends



SooS Loader » previous | next

### Demonstrating Copy and Paste with date

Here is a simple command,

```
date
```

The computer's output from the command date is to print out the date.

In Sugar, if we want to copy and paste the above command into the terminal, we can take the following steps. The following slides demonstrate the process. We opened Terminal Activity earlier

### 4.13.1 Next up

Getting to work

Or, return to start of Demonstrating copy and paste with date

---

## SoaS Loader work starts here

---



### 5.1 Getting to work



We use just three commands. Let's look at them.

For convenience, the commands are also printed in a compact form on the next page, [Command list](#).

#### 5.1.1 Disk free

```
df -Th
```

We use disk free to establish the device location.

We run the command once before inserting the target USB stick.

We plug in the USB stick.

We run the command again.

The difference between the two outputs provides an “address” for the target USB stick.

#### 5.1.2 Unmount

To unmount the target USB stick, the command is:

```
umount /dev/sd?1
```

Replacing ? with your drive letter.

That is, replacing /dev/sd?1 with the “address” for your target USB stick.

If editing the command line is new to you there pointers to Help in the section, starting [New Sugar learners](#).

### 5.1.3 Using the script



It is important to get this right as there is a risk of destroying data. If you aim the *livecd-iso-to-disk* command at your hard drive you could destroy your operating system.

Here is a choice of two commands suitable to load Sugar onto either a 2 GB or 4 GB USB stick.

#### 5.1.4 For a 2 GB USB stick

```
su -c "livecd-iso-to-disk --reset-mbr --overlay-size-mb 450 --home-size-mb 750 --unencrypted-home /root"
```

*replacing ? with your drive letter*

#### 5.1.5 For a 4 GB USB stick

```
su -c "livecd-iso-to-disk --reset-mbr --overlay-size-mb 700 --home-size-mb 2200 --unencrypted-home /root"
```

*replacing ? with your drive letter*



For the curious

## 5.2 Command list

Disk free - to establish the drive letter.

```
df -Th
```

Unmount the target USB stick

```
umount /dev/sd?1
```

*replacing ? with your drive letter.*

Script command - 2 GB USB stick

```
su -c "livecd-iso-to-disk --reset-mbr --overlay-size-mb 450 --home-size-mb 750 --unencrypted-home /root"
```

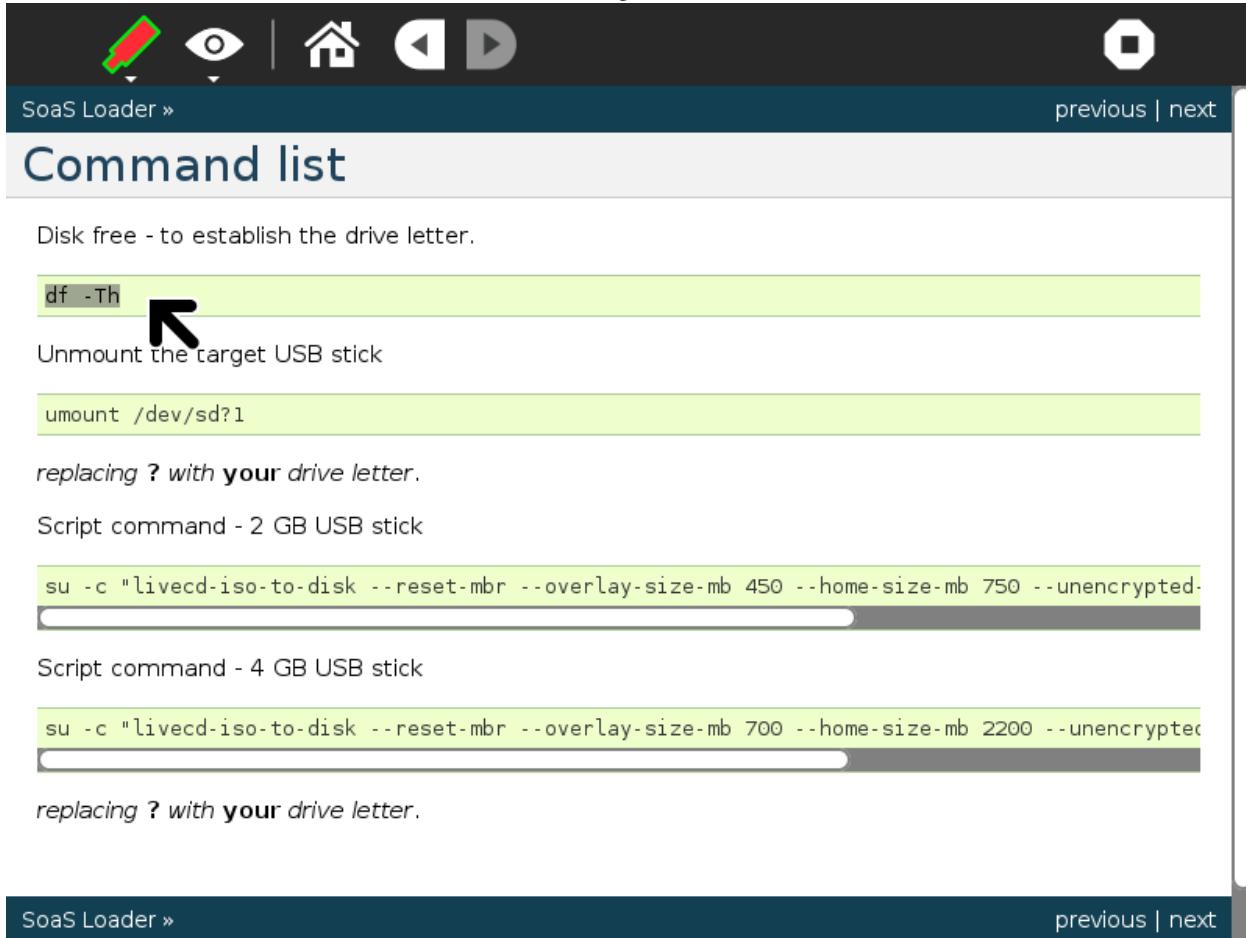
Script command - 4 GB USB stick

```
su -c "livecd-iso-to-disk --reset-mbr --overlay-size-mb 700 --home-size-mb 2200 --unencrypted-home /root"
```

*replacing ? with your drive letter.*

## 5.3 Disk free, select

Select the first command, from [Command list](#), as this image shows.



The screenshot shows the Sugar interface with the title bar "SoS Loader »" and icons for file operations. Below is the "Command list" window:

- Disk free - to establish the drive letter.**  
df -Th  
Unmount the target USB stick
- Script command - 2 GB USB stick**  
umount /dev/sd?1
- replacing ? with your drive letter.**
- Script command - 4 GB USB stick**  
su -c "livecd-iso-to-disk --reset-mbr --overlay-size-mb 450 --home-size-mb 750 --unencrypted"  
su -c "livecd-iso-to-disk --reset-mbr --overlay-size-mb 700 --home-size-mb 2200 --unencrypted"
- replacing ? with your drive letter.**

At the bottom are links "SoS Loader »" and "previous | next".

## 5.4 Disk free, copy

Use the keyboard shortcut **Ctrl + C** to copy the command.

The screenshot shows a terminal window titled "SoaS Loader »" with a dark blue header bar containing icons for file operations (copy, paste, cut, eye, etc.) and navigation (home, back, forward). The main area is titled "Command list".

Disk free - to establish the drive letter.

```
df -Th
```

Unmount the target USB stick

```
umount /dev/sd?1
```

replacing ? with your drive letter.

Script command - 2 GB USB stick

```
su -c "livecd-iso-to-disk --reset-mbr --overlay-size-mb 450 --home-size-mb 750 --unencrypted-
```

Script command - 4 GB USB stick

```
su -c "livecd-iso-to-disk --reset-mbr --overlay-size-mb 700 --home-size-mb 2200 --unencrypted-
```

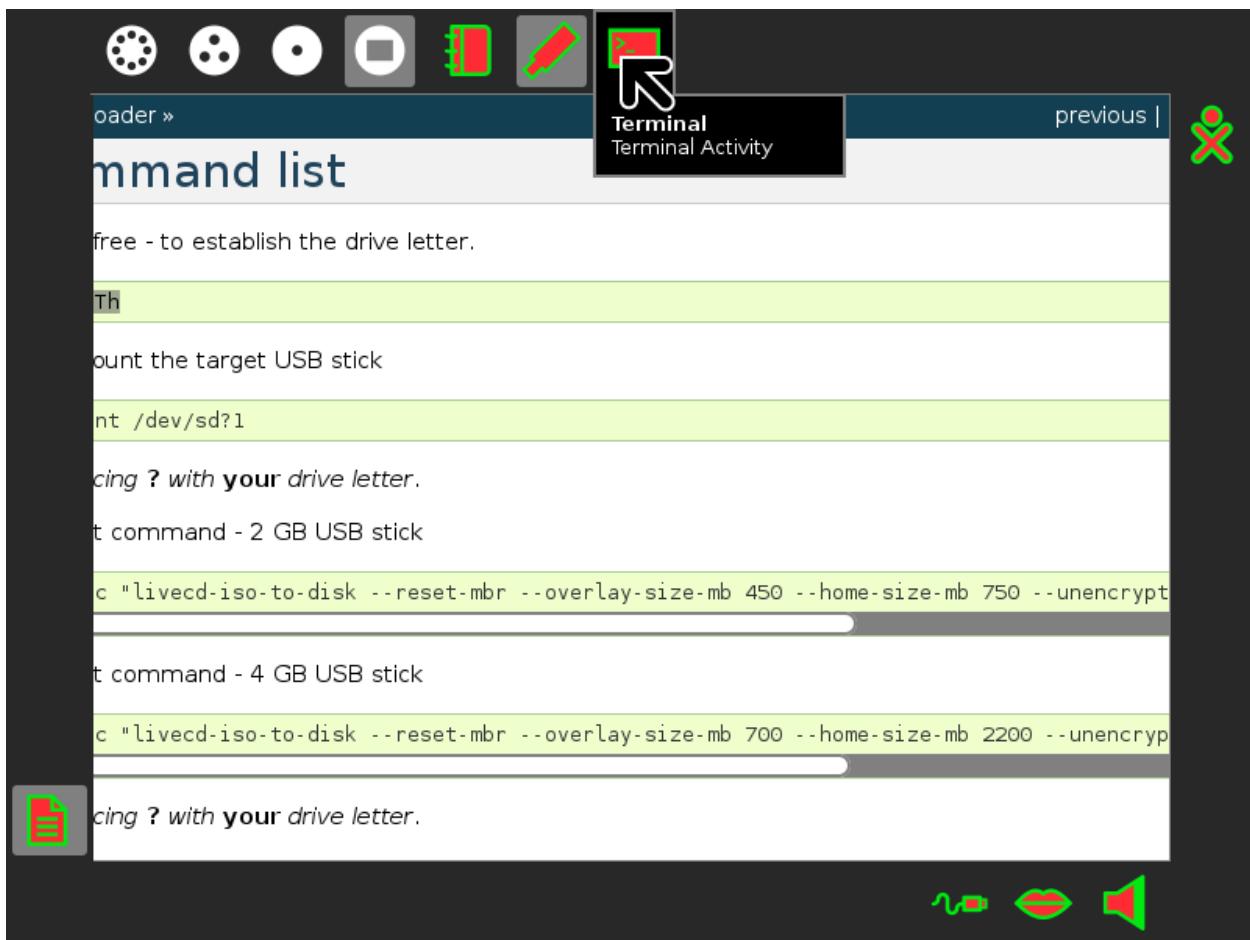
replacing ? with your drive letter.

loader »

previous | next

## 5.5 Press F6, Frame key

to switch to Terminal Activity.

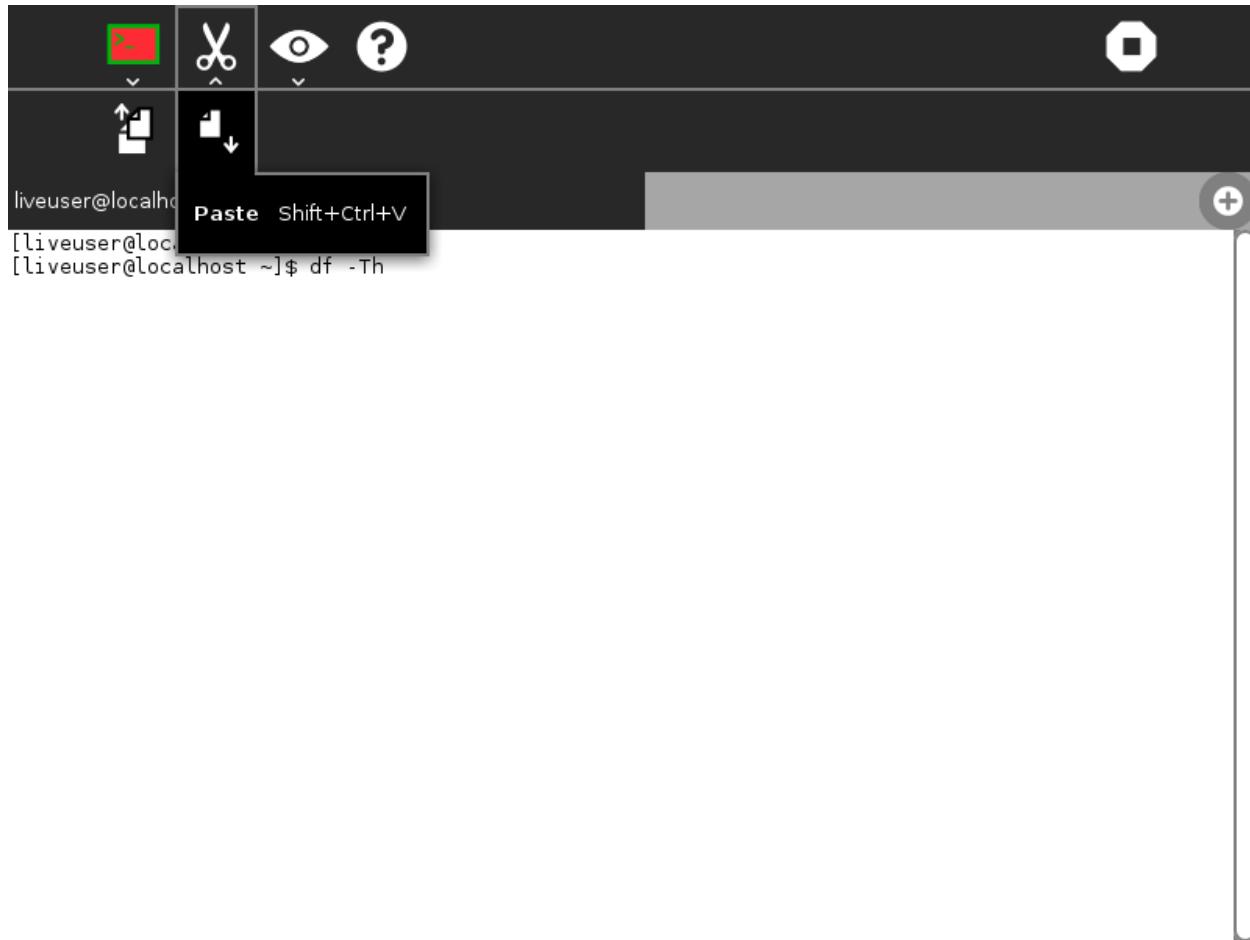


## 5.6 Disk free, paste

The Terminal opens.

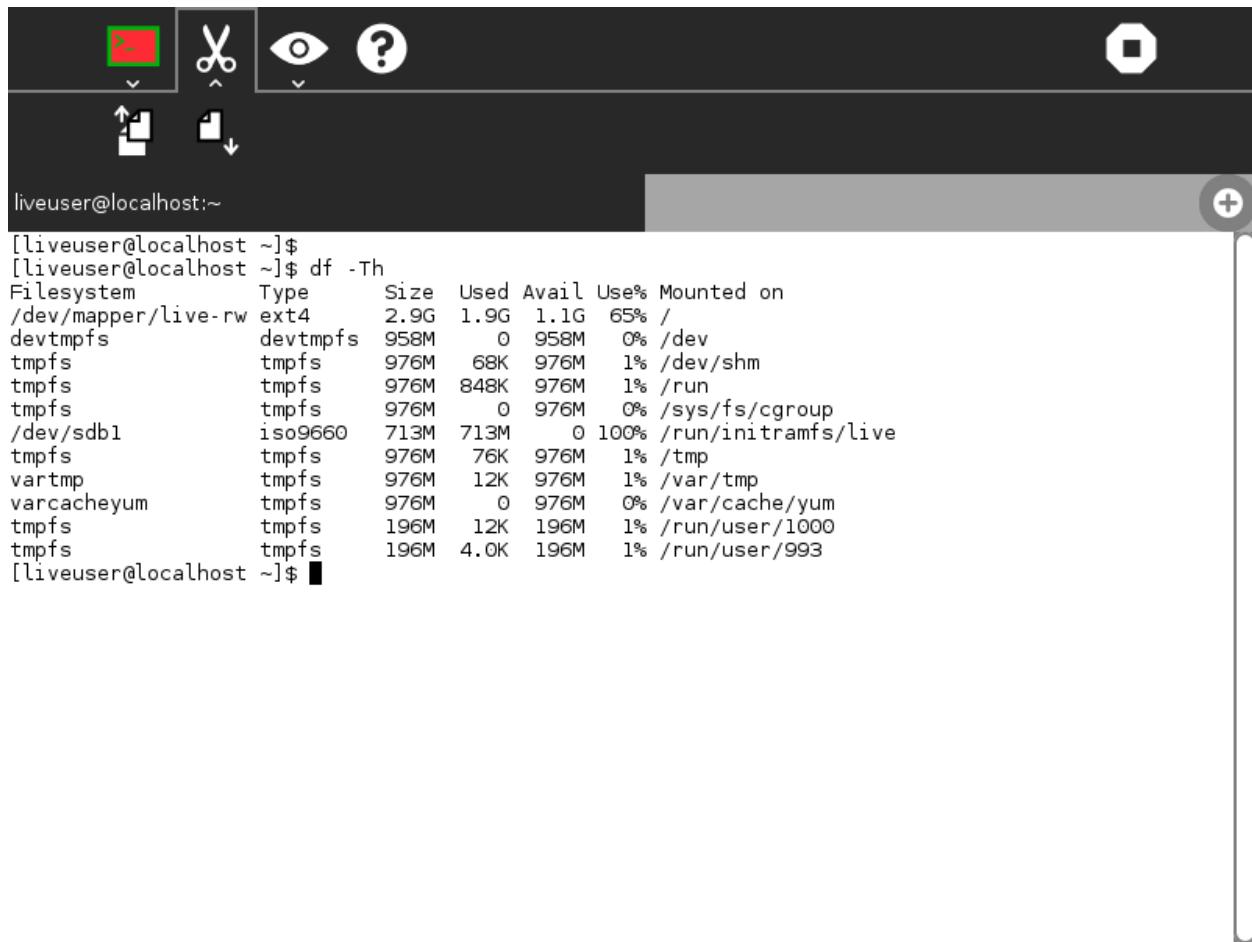
Press the Paste button within the Edit tab.

The command appears at the prompt.



## 5.7 Disk free, enter

Press **Enter**, the command runs giving output like this.

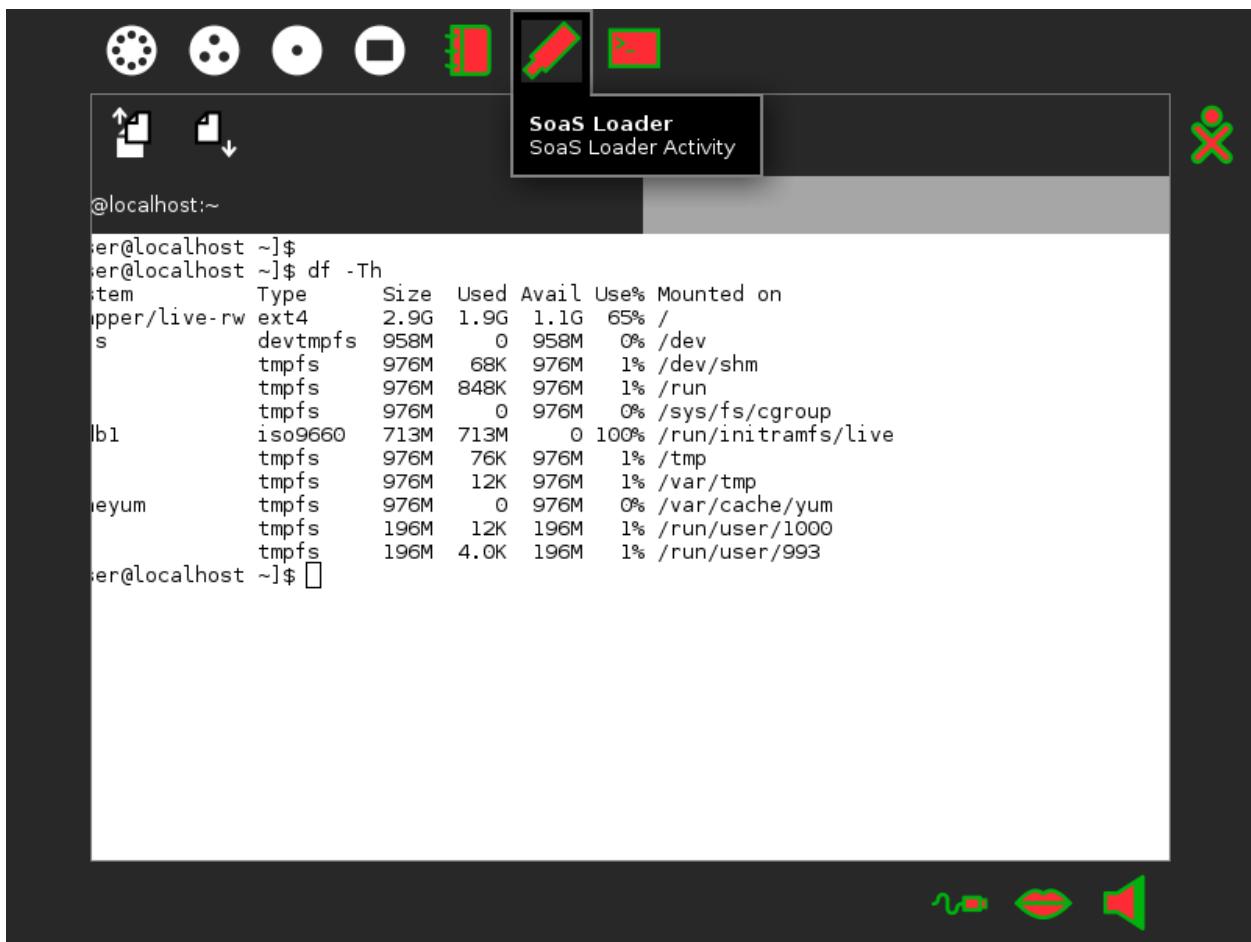


The screenshot shows a Sugar interface window with a dark theme. At the top, there is a toolbar with several icons: a red square with a white minus sign, a pair of scissors, an eye, a question mark, and a hexagon. Below the toolbar is a status bar with the text "liveuser@localhost:~". The main area contains a terminal window displaying the output of the "df -Th" command. The output shows the following disk usage:

Filesystem	Type	Size	Used	Avail	Use%	Mounted on
/dev/mapper/live-rw	ext4	2.9G	1.9G	1.1G	65%	/
devtmpfs	devtmpfs	958M	0	958M	0%	/dev
tmpfs	tmpfs	976M	68K	976M	1%	/dev/shm
tmpfs	tmpfs	976M	848K	976M	1%	/run
tmpfs	tmpfs	976M	0	976M	0%	/sys/fs/cgroup
/dev/sdb1	iso9660	713M	713M	0	100%	/run/initramfs/live
tmpfs	tmpfs	976M	76K	976M	1%	/tmp
vartmp	tmpfs	976M	12K	976M	1%	/var/tmp
varcacheyum	tmpfs	976M	0	976M	0%	/var/cache/yum
tmpfs	tmpfs	196M	12K	196M	1%	/run/user/1000
tmpfs	tmpfs	196M	4.0K	196M	1%	/run/user/993

## 5.8 Press F6, Frame key

Click on the SoaS Loader Activity icon any time you want to switch back to the tutorial.

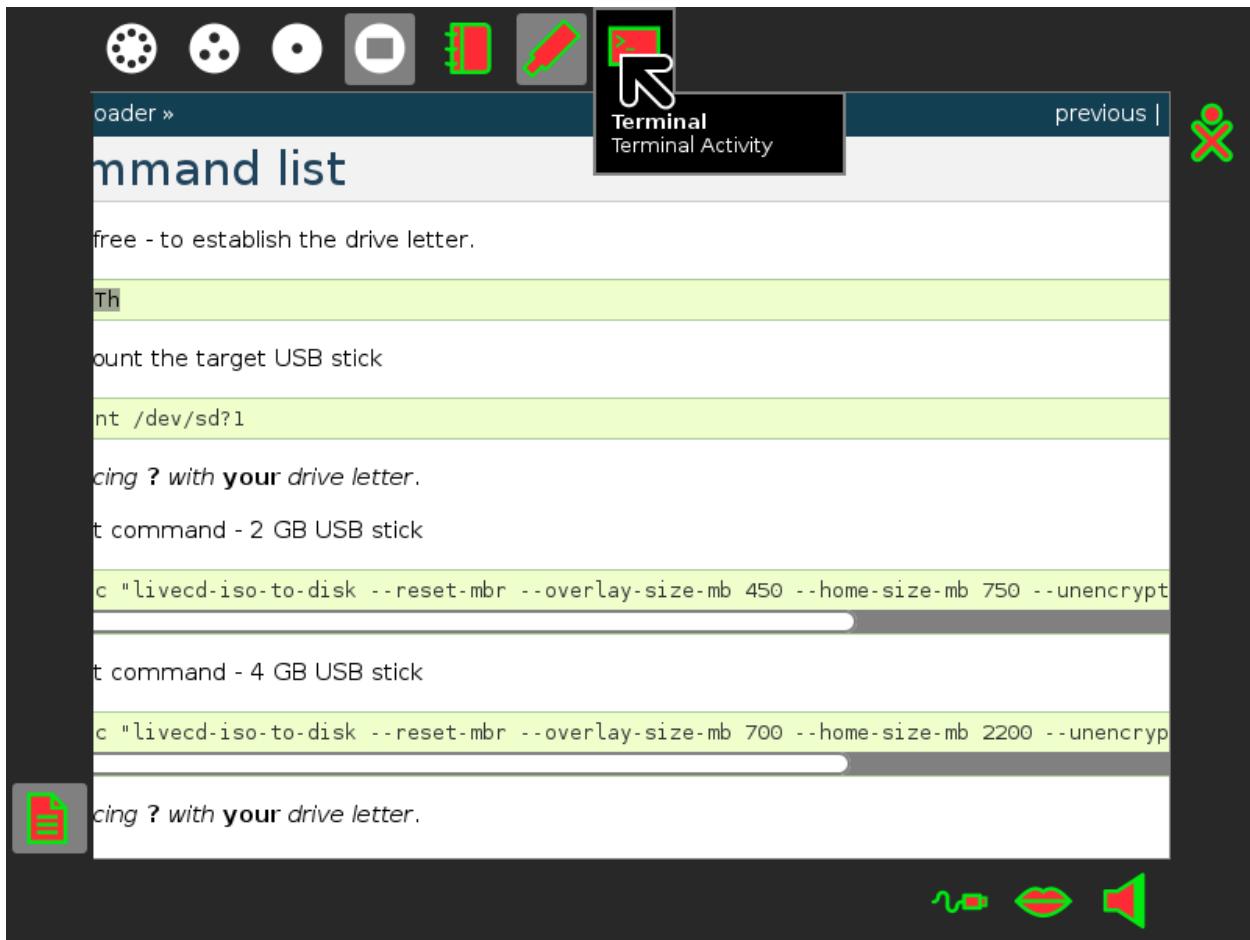


## 5.9 Plug in the stick

Plug the clean memory stick, the target device, into the PC or laptop.

Allow a second for the USB stick to be recognized and then run again the first command.

## 5.10 Press F6, Frame key to switch to Terminal Activity



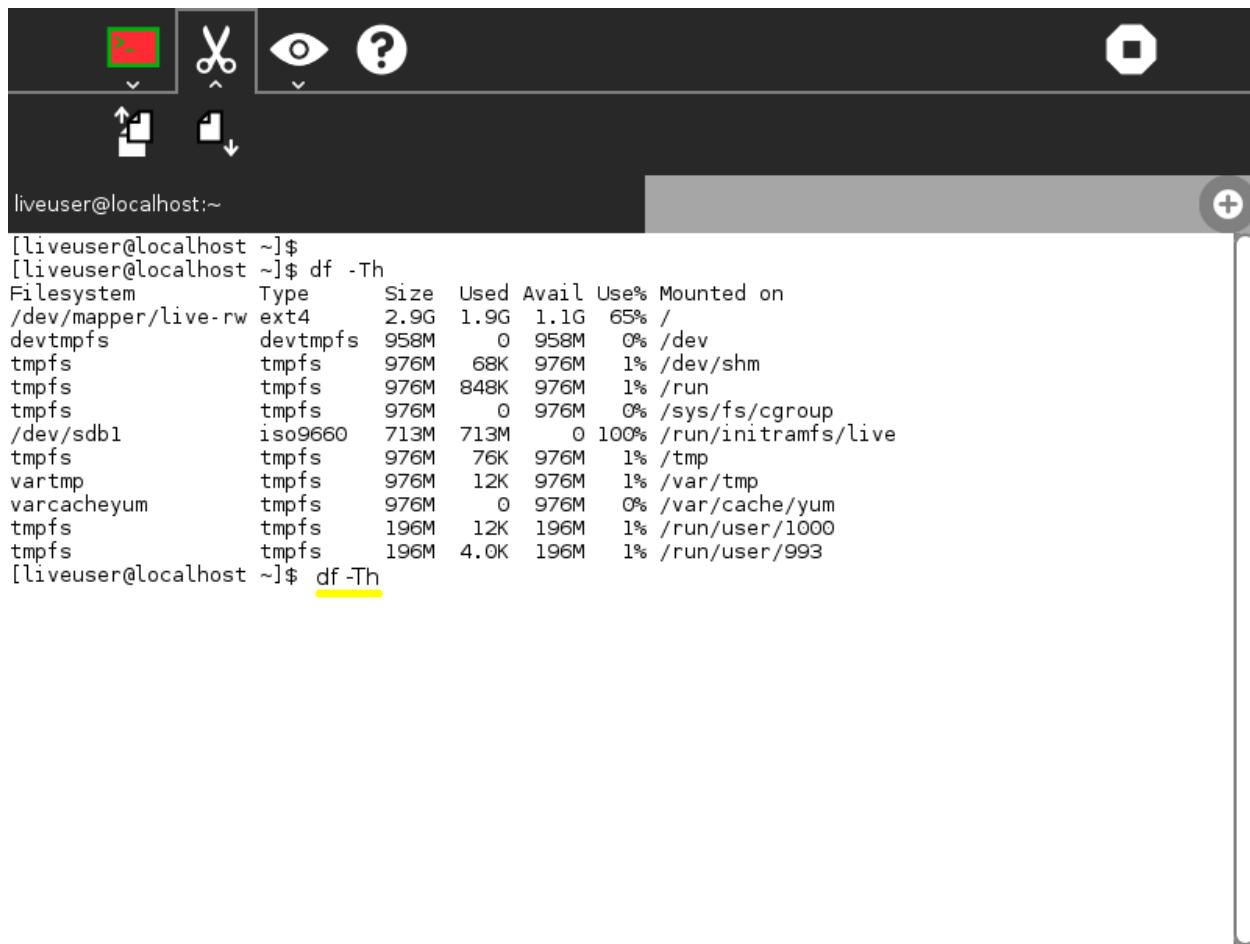
## 5.11 Disk free, re-run the command

The Terminal opens.

There is a feature that allows Terminal Activity to store previously run commands.

With Terminal open on your screen tap the **up arrow** key on the keyboard once.

The last run command appears at the prompt.



The screenshot shows the Sugar interface with a terminal window open. The terminal window has a dark background and contains the following text:

```
[liveuser@localhost ~]$ df -Th
[liveuser@localhost ~]$ df -Th
Filesystem      Type  Size  Used  Avail Use% Mounted on
/dev/mapper/live-rw ext4   2.9G  1.9G  1.1G  65% /
devtmpfs        devtmpfs  958M    0  958M  0% /dev
tmpfs          tmpfs   976M   68K  976M  1% /dev/shm
tmpfs          tmpfs   976M  848K  976M  1% /run
tmpfs          tmpfs   976M    0  976M  0% /sys/fs/cgroup
/dev/sdb1       iso9660  713M  713M    0 100% /run/initramfs/live
tmpfs          tmpfs   976M   76K  976M  1% /tmp
vartmp         tmpfs   976M   12K  976M  1% /var/tmp
varcacheyum   tmpfs   976M    0  976M  0% /var/cache/yum
tmpfs          tmpfs   196M   12K  196M  1% /run/user/1000
tmpfs          tmpfs   196M   4.0K  196M  1% /run/user/993
[liveuser@localhost ~]$ df -Th
```

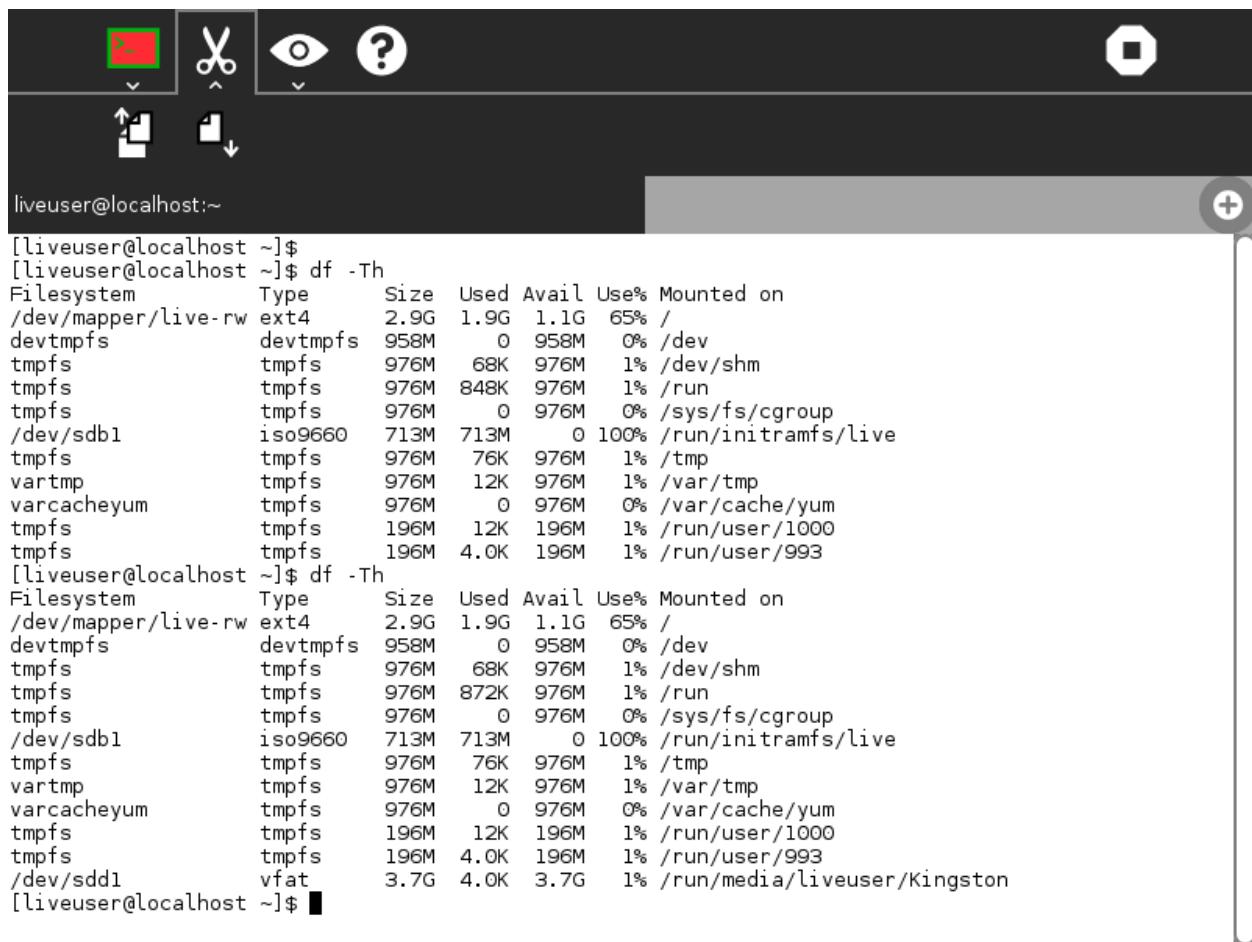
---

**Note:** You are able to scroll through all the commands you have run recently with the **up arrow** and **down arrow** keys.

---

## 5.12 Second disk free, enter

When you press **Enter**, the command runs, giving output like this.

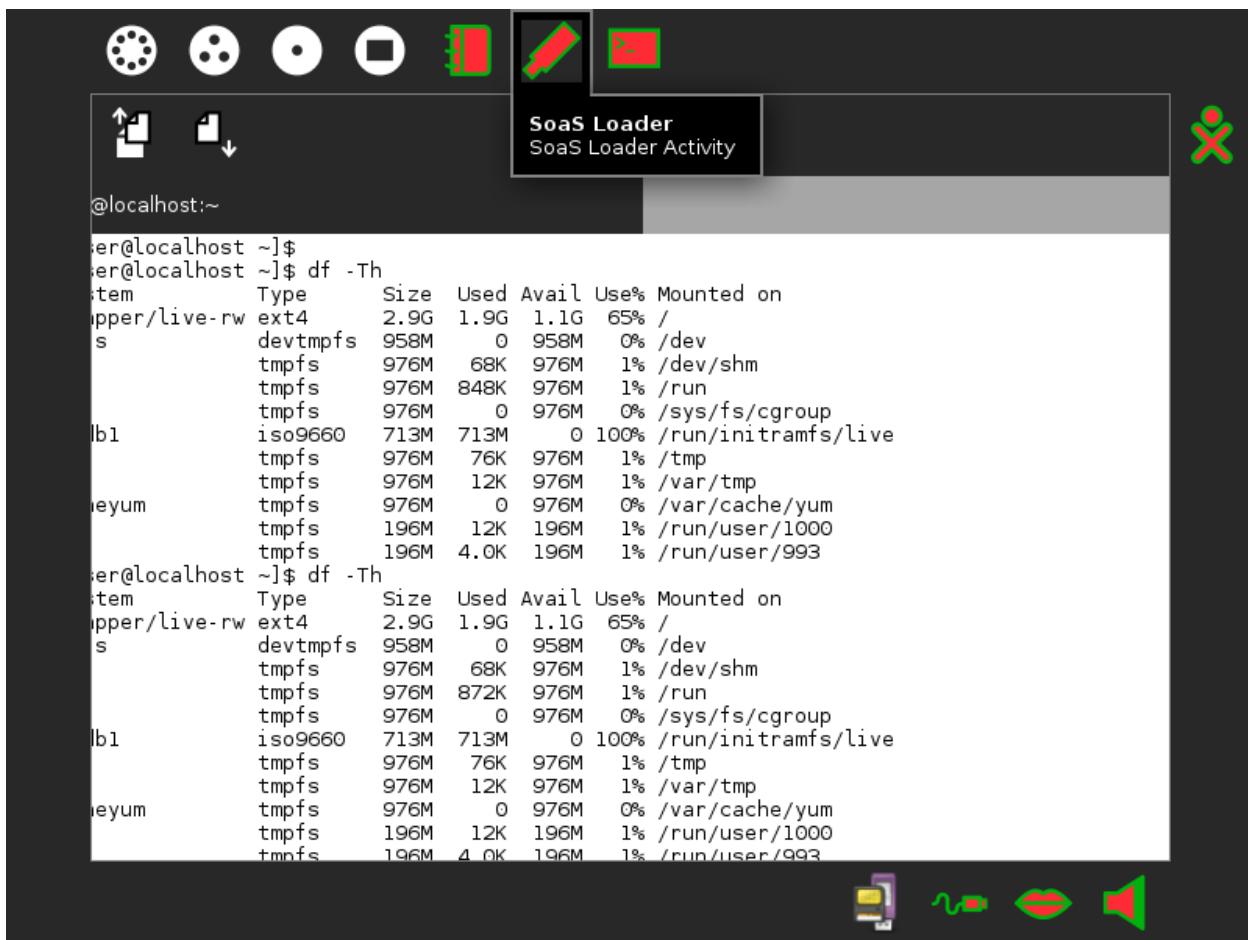


The screenshot shows a Sugar interface window with a terminal application open. The terminal displays two nearly identical outputs of the 'df -Th' command, indicating a loopback device named 'live'. The top output lists devices like /dev/mapper/live-rw, devtmpfs, tmpfs, and /dev/sdb1. The bottom output adds /dev/sdd1 and vfat. The Sugar interface includes a toolbar with icons for file operations (copy, paste, cut, eye, question mark) and a central workspace.

```
[liveuser@localhost ~]$ df -Th
[liveuser@localhost ~]$ df -Th
Filesystem      Type     Size   Used  Avail Use% Mounted on
/dev/mapper/live-rw ext4    2.9G  1.9G  1.1G  65% /
devtmpfs        devtmpfs  958M    0  958M  0% /dev
tmpfs           tmpfs    976M   68K  976M  1% /dev/shm
tmpfs           tmpfs    976M  848K  976M  1% /run
tmpfs           tmpfs    976M    0  976M  0% /sys/fs/cgroup
/dev/sdb1        iso9660  713M  713M    0 100% /run/initramfs/live
tmpfs           tmpfs    976M   76K  976M  1% /tmp
vartmp          tmpfs    976M   12K  976M  1% /var/tmp
varcacheyum     tmpfs    976M    0  976M  0% /var/cache/yum
tmpfs           tmpfs   196M   12K  196M  1% /run/user/1000
tmpfs           tmpfs   196M  4.0K  196M  1% /run/user/993
[Liveuser@localhost ~]$ df -Th
Filesystem      Type     Size   Used  Avail Use% Mounted on
/dev/mapper/live-rw ext4    2.9G  1.9G  1.1G  65% /
devtmpfs        devtmpfs  958M    0  958M  0% /dev
tmpfs           tmpfs    976M   68K  976M  1% /dev/shm
tmpfs           tmpfs    976M  872K  976M  1% /run
tmpfs           tmpfs    976M    0  976M  0% /sys/fs/cgroup
/dev/sdb1        iso9660  713M  713M    0 100% /run/initramfs/live
tmpfs           tmpfs    976M   76K  976M  1% /tmp
vartmp          tmpfs    976M   12K  976M  1% /var/tmp
varcacheyum     tmpfs    976M    0  976M  0% /var/cache/yum
tmpfs           tmpfs   196M   12K  196M  1% /run/user/1000
tmpfs           tmpfs   196M  4.0K  196M  1% /run/user/993
/dev/sdd1        vfat     3.7G  4.0K  3.7G  1% /run/media/liveuser/Kingston
[liveuser@localhost ~]$ █
```

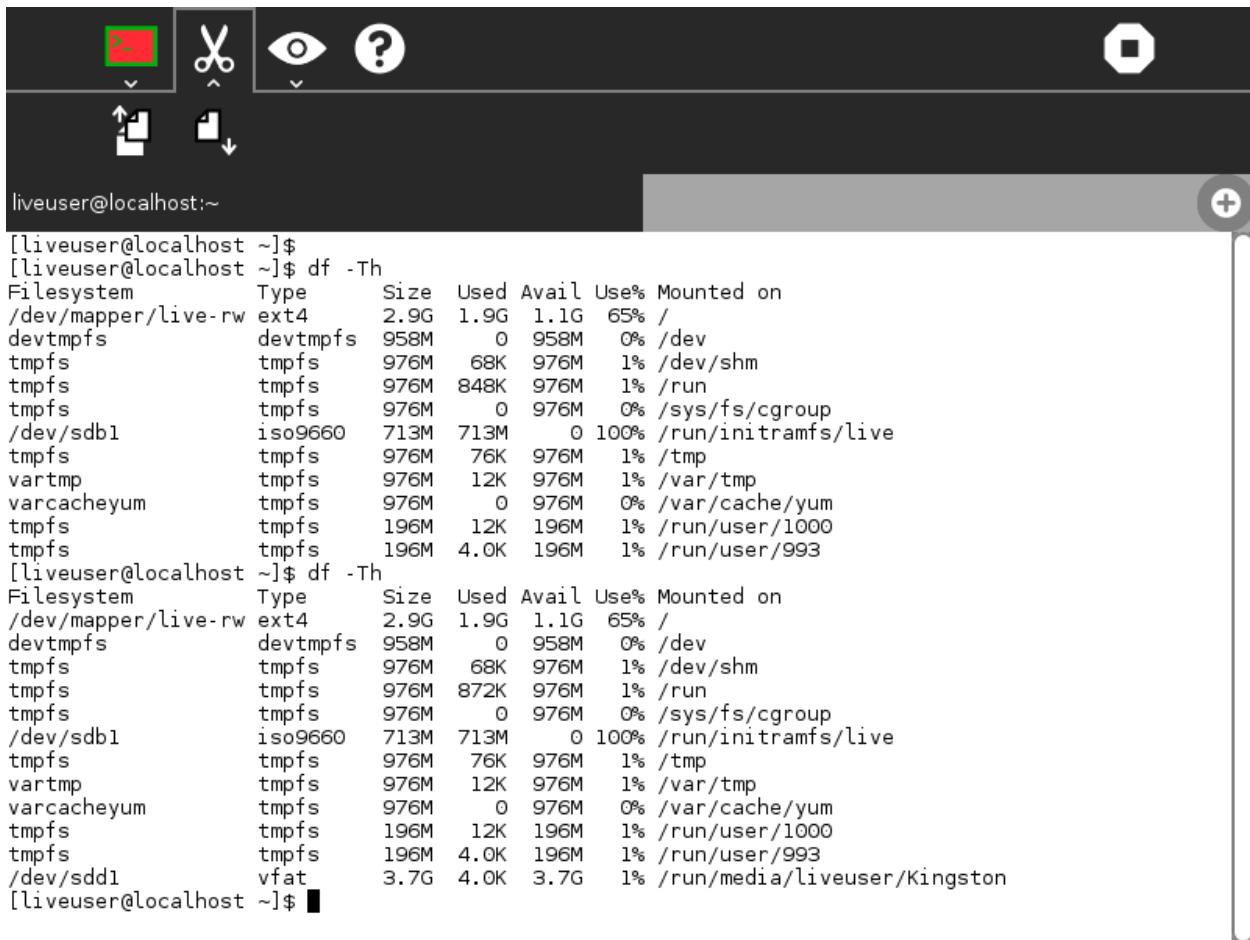
## 5.13 Press F6, Frame key

Click on the SoaS Loader Activity icon to switch back to the tutorial.



## 5.14 Establish the drive letter

Notice the changed output is a new line at the bottom representing the newly inserted device.



```

liveuser@localhost:~]
[liveuser@localhost ~]$ df -Th
Filesystem      Type  Size  Used Avail Use% Mounted on
/dev/mapper/live-rw ext4  2.9G  1.9G  1.1G  65% /
devtmpfs        devtmpfs 958M   0  958M  0% /dev
tmpfs           tmpfs   976M  68K  976M  1% /dev/shm
tmpfs           tmpfs   976M  848K  976M  1% /run
tmpfs           tmpfs   976M   0  976M  0% /sys/fs/cgroup
/dev/sdb1        iso9660 713M  713M   0 100% /run/initramfs/live
tmpfs           tmpfs   976M  76K  976M  1% /tmp
vartmp          tmpfs   976M  12K  976M  1% /var/tmp
varcacheyum    tmpfs   976M   0  976M  0% /var/cache/yum
tmpfs           tmpfs   196M  12K  196M  1% /run/user/1000
tmpfs           tmpfs   196M  4.0K  196M  1% /run/user/993
[Liveuser@localhost ~]$ df -Th
Filesystem      Type  Size  Used Avail Use% Mounted on
/dev/mapper/live-rw ext4  2.9G  1.9G  1.1G  65% /
devtmpfs        devtmpfs 958M   0  958M  0% /dev
tmpfs           tmpfs   976M  68K  976M  1% /dev/shm
tmpfs           tmpfs   976M  872K  976M  1% /run
tmpfs           tmpfs   976M   0  976M  0% /sys/fs/cgroup
/dev/sdb1        iso9660 713M  713M   0 100% /run/initramfs/live
tmpfs           tmpfs   976M  76K  976M  1% /tmp
vartmp          tmpfs   976M  12K  976M  1% /var/tmp
varcacheyum    tmpfs   976M   0  976M  0% /var/cache/yum
tmpfs           tmpfs   196M  12K  196M  1% /run/user/1000
tmpfs           tmpfs   196M  4.0K  196M  1% /run/user/993
/dev/sdd1        vfat    3.7G  4.0K  3.7G  1% /run/media/liveuser/Kingston
[Liveuser@localhost ~]$ █

```

The new line reads:

```
/dev/sdd1  vfat  3.7G  4.0K  3.7G  1% /run/media/liveuser/Kingston
```

`/dev/sdd1` is an “address” for my USB stick. In the commands which follow you must use the address you find.

You must alter the commands given, so that the commands are aimed at the address you find.

Put another way,

<code>/dev</code>	indicates	a location
<code>/sd</code>	indicates	scsi device
<code>d</code>	indicates	the drive letter
<code>1</code>	indicates	partition number

In my case the drive letter is **d**.

### 5.14.1 Footnote

Your identifier should end with the numeral 1. If not, or you get more than one new line of output, the USB stick you have inserted is not sufficiently “clean”.

Either of the above indicate that the stick is not in a preferred format, for example vfat. If this is your first time doing this sort of job, a new USB stick would be ideal.

The script is able to deal with non-standard cases, but the installation will probably not be automatic, requiring some input from the user.

## 5.15 Unmount the target device

The second command detaches the USB stick from our PC, we *unmount* the USB stick.

The command is printed as:

```
umount /dev/sd?1
```

but it must be directed the “address” you find for your target USB stick.

The code above contains a question mark which will not be recognised as part of this command.

Paste the command (complete with ?) into the Terminal, then edit the question mark out of the command and replace it with **your** drive letter.

To edit a command already pasted into the Terminal use the left arrow key to move the cursor to the left into the text. When the cursor is over the ? press the delete key. Enter the replacement character from the keyboard. Clear the cursor away from the text with the right arrow key. Double check that the command is now correct.

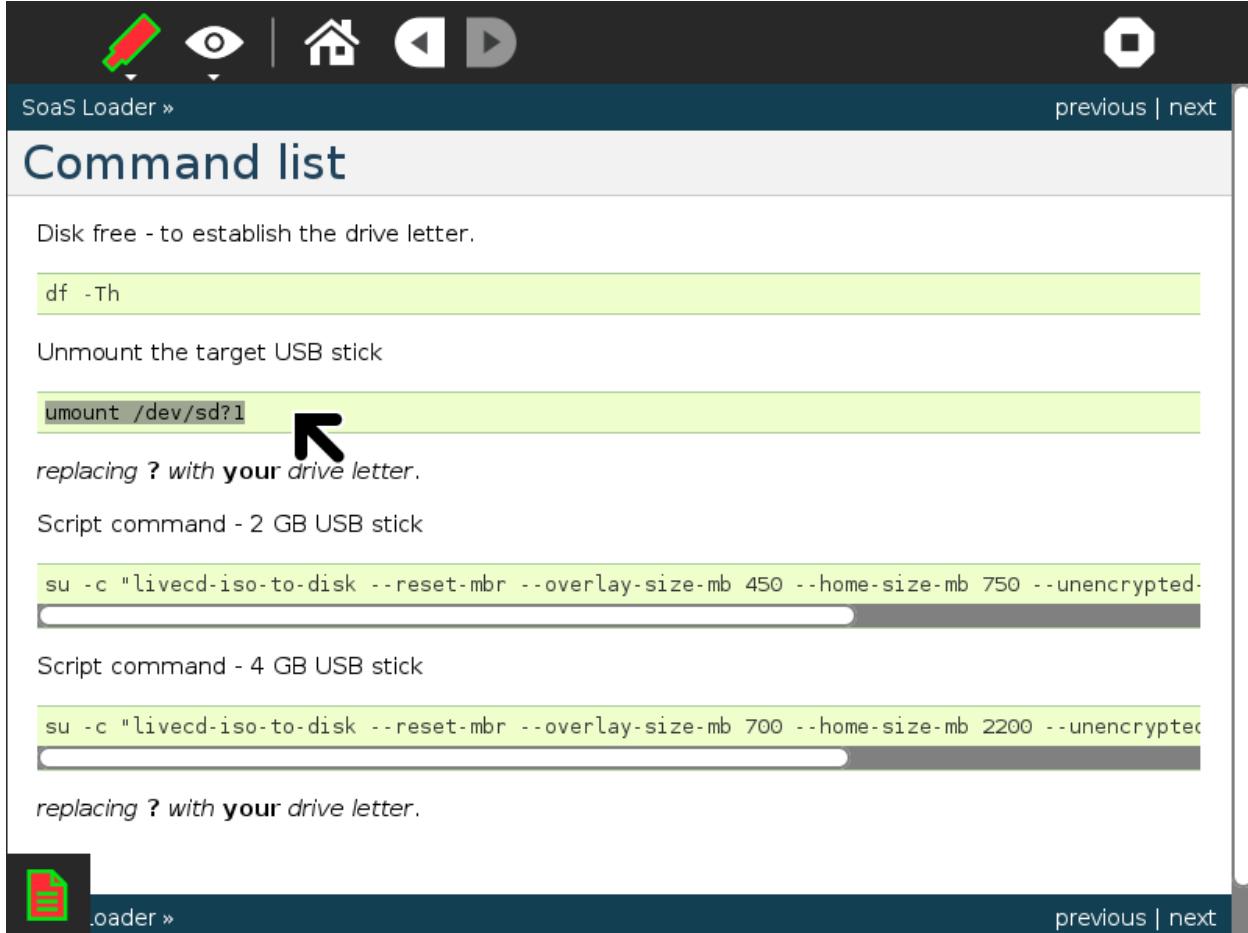
## 5.16 umount, select

Select the command, from [Command list](#).

The screenshot shows a software interface titled "SoaS Loader »". At the top, there are several icons: a red pencil, an eye, a house, and arrows for navigation. To the right of the house icon are buttons for "previous" and "next". Below the title, the text "Command list" is displayed. The main area contains a list of commands with descriptions and input fields. The command "umount /dev/sd?1" is highlighted with a green background and a black arrow points to the question mark, indicating it should be replaced with a specific drive letter. Other visible commands include "df -Th", "Disk free - to establish the drive letter.", "Script command - 2 GB USB stick", "su -c \"livecd-iso-to-disk --reset-mbr --overlay-size-mb 450 --home-size-mb 750 --unencrypted\"", "Script command - 4 GB USB stick", and "su -c \"livecd-iso-to-disk --reset-mbr --overlay-size-mb 700 --home-size-mb 2200 --unencrypted\"". Each command has a corresponding input field below it. The bottom of the window also features "SoaS Loader »" and "previous | next" buttons.

## 5.17 umount, copy

Use the keyboard shortcut **Ctrl + C** to copy the command.

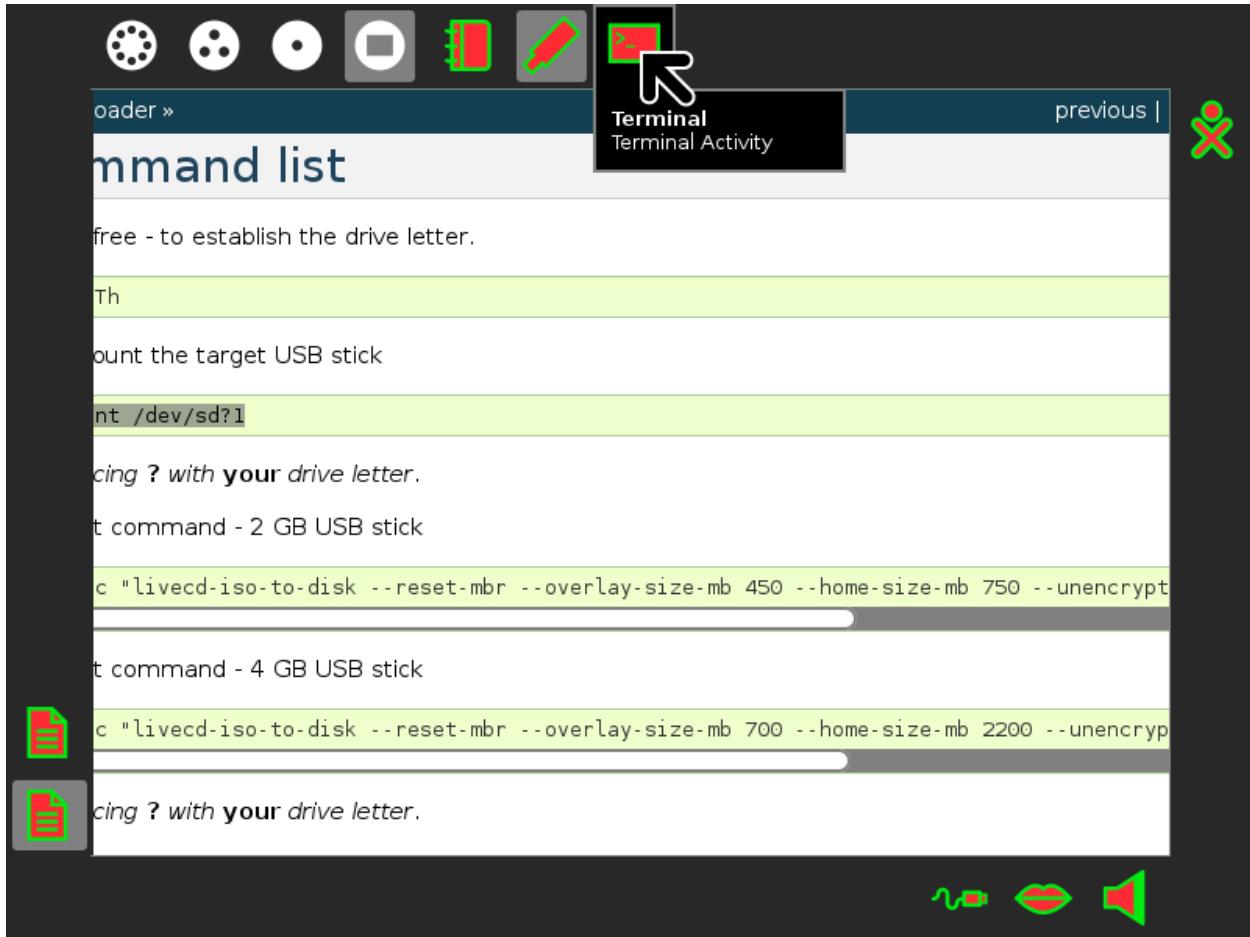


The screenshot shows a Sugar application window titled "Command list". The window contains several command examples:

- Disk free - to establish the drive letter.  
`df -Th`
- Unmount the target USB stick  
`umount /dev/sd?1`   
replacing ? with **your drive letter**.
- Script command - 2 GB USB stick  
`su -c "livecd-iso-to-disk --reset-mbr --overlay-size-mb 450 --home-size-mb 750 --unencrypted"`
- Script command - 4 GB USB stick  
`su -c "livecd-iso-to-disk --reset-mbr --overlay-size-mb 700 --home-size-mb 2200 --unencrypted"`  
replacing ? with **your drive letter**.

The window has a dark header bar with icons for file operations (copy, paste, eye, etc.) and navigation (back, forward). The footer bar includes the "SooS Loader »" icon and "previous | next" links.

## 5.18 Press F6, Frame key, to switch Activities

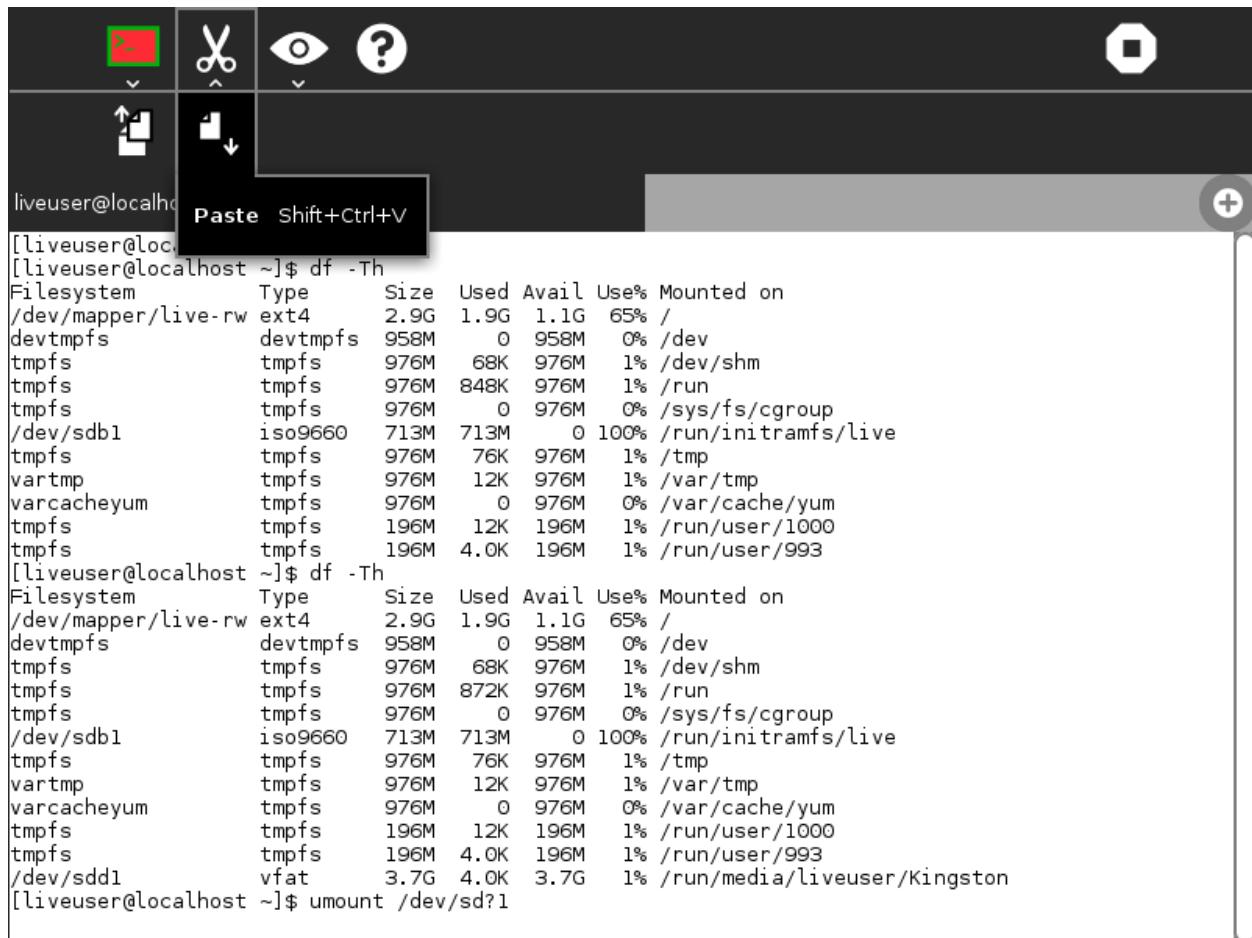


## 5.19 umount, paste

The Terminal opens.

Press the Paste button within the Edit tab.

The command will appear at the prompt, but don't press Enter.

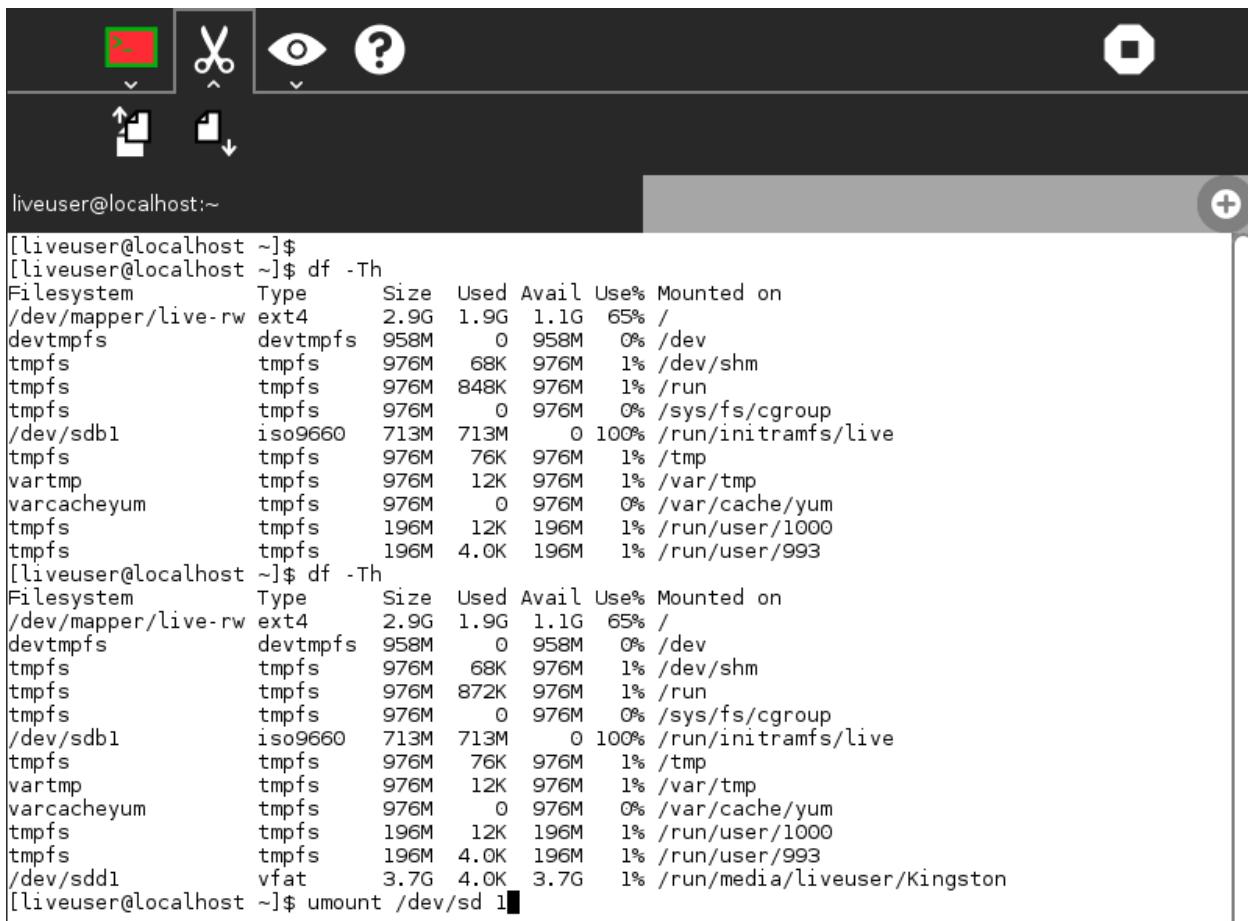


```
[liveuser@localhost ~]$ df -Th
Filesystem      Type  Size  Used  Avail Use% Mounted on
/dev/mapper/live-rw ext4  2.9G  1.9G  1.1G  65% /
devtmpfs        devtmpfs 958M   0    958M  0% /dev
tmpfs          tmpfs   976M  68K  976M  1% /dev/shm
tmpfs          tmpfs   976M  848K  976M  1% /run
tmpfs          tmpfs   976M   0    976M  0% /sys/fs/cgroup
/dev/sdb1       iso9660  713M  713M   0  100% /run/initramfs/live
tmpfs          tmpfs   976M  76K  976M  1% /tmp
vartmp         tmpfs   976M  12K  976M  1% /var/tmp
varcacheyum    tmpfs   976M   0    976M  0% /var/cache/yum
tmpfs          tmpfs   196M  12K  196M  1% /run/user/1000
tmpfs          tmpfs   196M  4.0K  196M  1% /run/user/993
[Liveuser@localhost ~]$ df -Th
Filesystem      Type  Size  Used  Avail Use% Mounted on
/dev/mapper/live-rw ext4  2.9G  1.9G  1.1G  65% /
devtmpfs        devtmpfs 958M   0    958M  0% /dev
tmpfs          tmpfs   976M  68K  976M  1% /dev/shm
tmpfs          tmpfs   976M  872K  976M  1% /run
tmpfs          tmpfs   976M   0    976M  0% /sys/fs/cgroup
/dev/sdb1       iso9660  713M  713M   0  100% /run/initramfs/live
tmpfs          tmpfs   976M  76K  976M  1% /tmp
vartmp         tmpfs   976M  12K  976M  1% /var/tmp
varcacheyum    tmpfs   976M   0    976M  0% /var/cache/yum
tmpfs          tmpfs   196M  12K  196M  1% /run/user/1000
tmpfs          tmpfs   196M  4.0K  196M  1% /run/user/993
/dev/sdd1       vfat    3.7G  4.0K  3.7G  1% /run/media/liveuser/Kingston
[Liveuser@localhost ~]$ umount /dev/sd?1
```

## 5.20 umount, edit

Don't press **Enter** yet.

Edit the command to correct the drive letter.



```

liveuser@localhost:~$ [liveuser@localhost ~]$ df -Th
Filesystem      Type  Size  Used Avail Use% Mounted on
/dev/mapper/live-rw ext4  2.9G  1.9G  1.1G  65% /
devtmpfs        devtmpfs 958M   0  958M  0% /dev
tmpfs          tmpfs  976M  68K  976M  1% /dev/shm
tmpfs          tmpfs  976M  848K  976M  1% /run
tmpfs          tmpfs  976M   0  976M  0% /sys/fs/cgroup
/dev/sdb1       iso9660 713M  713M   0 100% /run/initramfs/live
tmpfs          tmpfs  976M  76K  976M  1% /tmp
vartmp         tmpfs  976M  12K  976M  1% /var/tmp
varcacheyum    tmpfs  976M   0  976M  0% /var/cache/yum
tmpfs          tmpfs  196M  12K  196M  1% /run/user/1000
tmpfs          tmpfs  196M  4.0K  196M  1% /run/user/993
[Liveuser@localhost ~]$ df -Th
Filesystem      Type  Size  Used Avail Use% Mounted on
/dev/mapper/live-rw ext4  2.9G  1.9G  1.1G  65% /
devtmpfs        devtmpfs 958M   0  958M  0% /dev
tmpfs          tmpfs  976M  68K  976M  1% /dev/shm
tmpfs          tmpfs  976M  872K  976M  1% /run
tmpfs          tmpfs  976M   0  976M  0% /sys/fs/cgroup
/dev/sdb1       iso9660 713M  713M   0 100% /run/initramfs/live
tmpfs          tmpfs  976M  76K  976M  1% /tmp
vartmp         tmpfs  976M  12K  976M  1% /var/tmp
varcacheyum    tmpfs  976M   0  976M  0% /var/cache/yum
tmpfs          tmpfs  196M  12K  196M  1% /run/user/1000
tmpfs          tmpfs  196M  4.0K  196M  1% /run/user/993
/dev/sdd1       vfat   3.7G  4.0K  3.7G  1% /run/media/liveuser/Kingston
[Liveuser@localhost ~]$ umount /dev/sd 1

```

### 5.20.1 Showing edit in progress

```

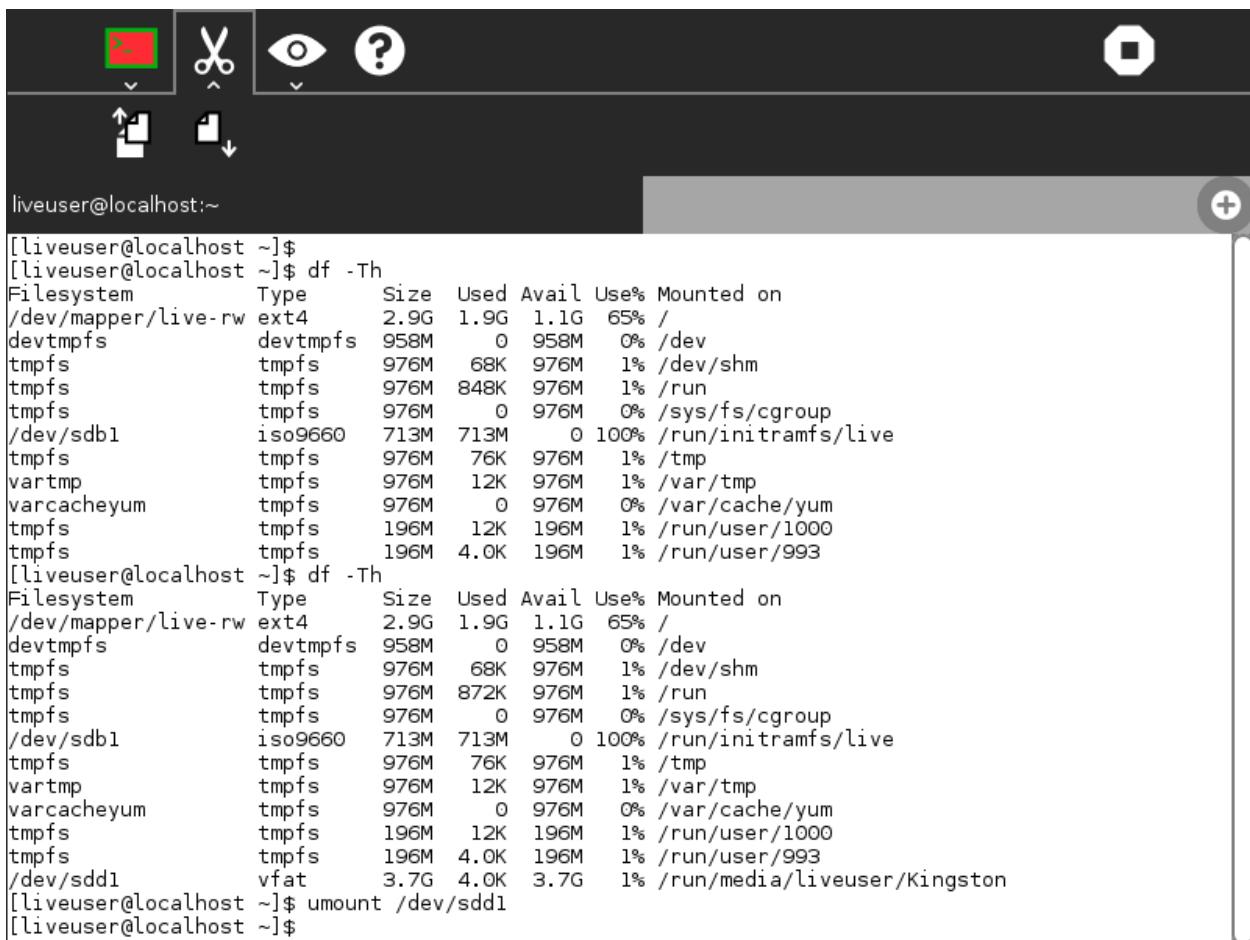
tmpfs          tmpfs  196M  12K  196M  1% /run/user/1000
tmpfs          tmpfs  196M  4.0K  196M  1% /run/user/993
/dev/sdd1       vfat   3.7G  4.0K  3.7G  1% /run/media/liveuser/Kingston
[Liveuser@localhost ~]$ umount /dev/sdd1

```

## 5.21 umount, enter

Press **Enter**. The command will run with no output, and will return the prompt.

The command was accepted and no error reported - fine.

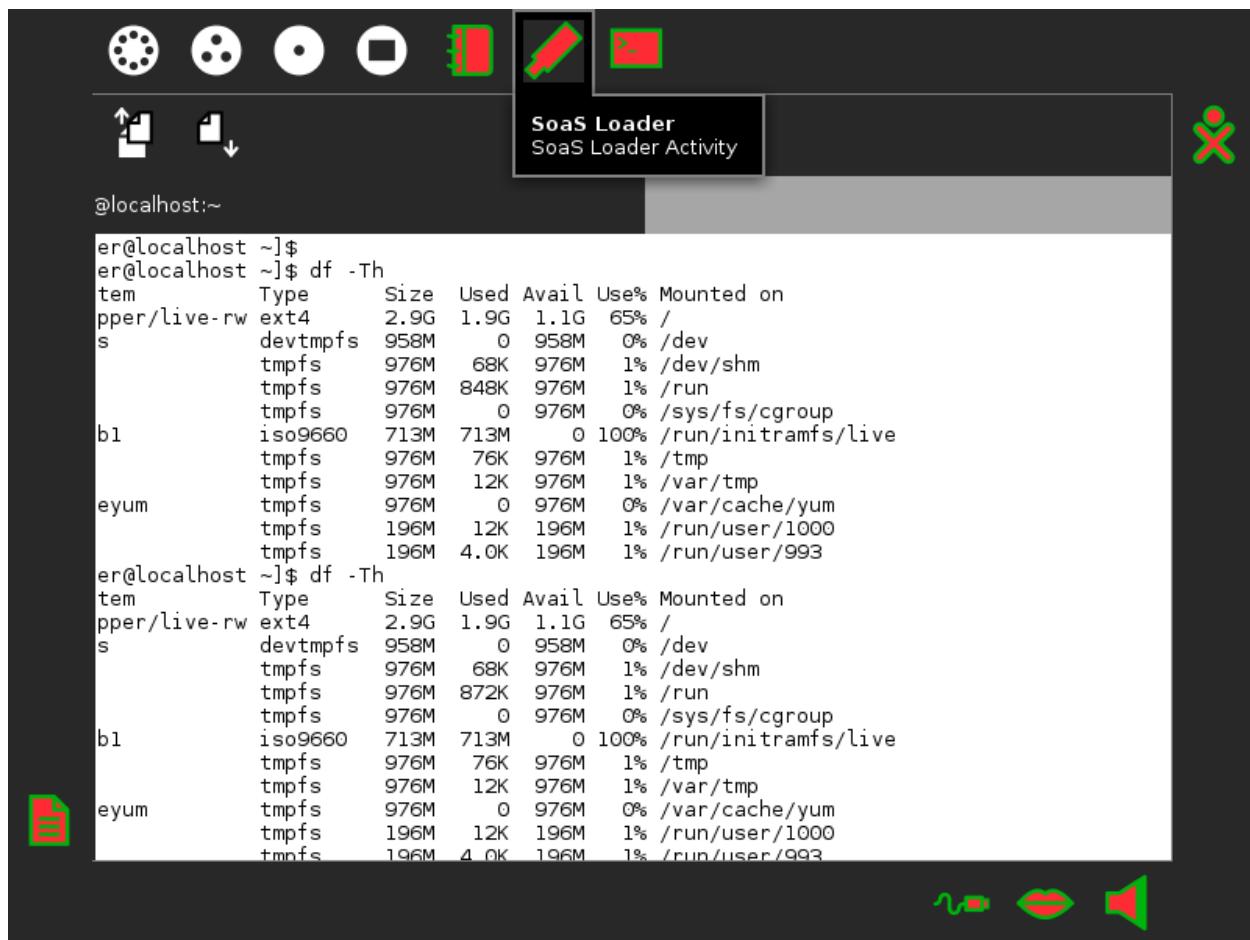


The screenshot shows the Sugar interface with a terminal window open. The terminal window title is "liveuser@localhost:~". The content of the terminal is as follows:

```
[liveuser@localhost ~]$ df -Th
[liveuser@localhost ~]$ df -Th
Filesystem      Type     Size   Used  Avail Use% Mounted on
/dev/mapper/live-rw ext4    2.9G  1.9G  1.1G  65% /
devtmpfs        devtmpfs  958M    0  958M  0% /dev
tmpfs           tmpfs    976M   68K  976M  1% /dev/shm
tmpfs           tmpfs    976M  848K  976M  1% /run
tmpfs           tmpfs    976M    0  976M  0% /sys/fs/cgroup
/dev/sdb1        iso9660  713M  713M    0 100% /run/initramfs/live
tmpfs           tmpfs    976M   76K  976M  1% /tmp
vartmp          tmpfs    976M   12K  976M  1% /var/tmp
varcacheyum    tmpfs    976M    0  976M  0% /var/cache/yum
tmpfs           tmpfs    196M   12K  196M  1% /run/user/1000
tmpfs           tmpfs    196M  4.0K  196M  1% /run/user/993
[Liveuser@localhost ~]$ df -Th
Filesystem      Type     Size   Used  Avail Use% Mounted on
/dev/mapper/live-rw ext4    2.9G  1.9G  1.1G  65% /
devtmpfs        devtmpfs  958M    0  958M  0% /dev
tmpfs           tmpfs    976M   68K  976M  1% /dev/shm
tmpfs           tmpfs    976M  872K  976M  1% /run
tmpfs           tmpfs    976M    0  976M  0% /sys/fs/cgroup
/dev/sdb1        iso9660  713M  713M    0 100% /run/initramfs/live
tmpfs           tmpfs    976M   76K  976M  1% /tmp
vartmp          tmpfs    976M   12K  976M  1% /var/tmp
varcacheyum    tmpfs    976M    0  976M  0% /var/cache/yum
tmpfs           tmpfs    196M   12K  196M  1% /run/user/1000
tmpfs           tmpfs    196M  4.0K  196M  1% /run/user/993
/dev/sdd1        vfat     3.7G  4.0K  3.7G  1% /run/media/liveuser/Kingston
[liveuser@localhost ~]$ umount /dev/sdd1
[liveuser@localhost ~]$
```

## 5.22 Press F6, Frame key

Click on the SoaS Loader Activity icon to switch back to the tutorial.



## 5.23 Script, select

Now we are ready for the final command.

Select the correct command for your 2 or 4 GB stick. Make sure you select the whole length of the command.

The screenshot shows a Sugar application window titled "Command list". The top bar includes icons for file operations (New, Open, Save, Home, Back, Forward) and a search field. The main area displays a list of commands:

- Disk free - to establish the drive letter.  
df -Th
- Unmount the target USB stick  
umount /dev/sd?1
- replacing ? with your drive letter.
- Script command - 2 GB USB stick  
su -c "livecd-iso-to-disk --reset-mbr --overlay-size-mb 450 --home-size-mb 750 --unencrypted-home /run/initramfs/livedev /dev/sd?1"
- Script command - 4 GB USB stick  
overlaysize-mb 700 --home-size-mb 2200 --unencrypted-home /run/initramfs/livedev /dev/sd?1"
- replacing ? with your drive letter.

At the bottom, there are navigation links: "SooS Loader »" and "previous | next". A large black arrow points from the right edge of the "overlaysize-mb" command entry towards the right margin of the window.

## 5.24 Script, copy

Use the keyboard shortcut **Ctrl + C** to copy the command.

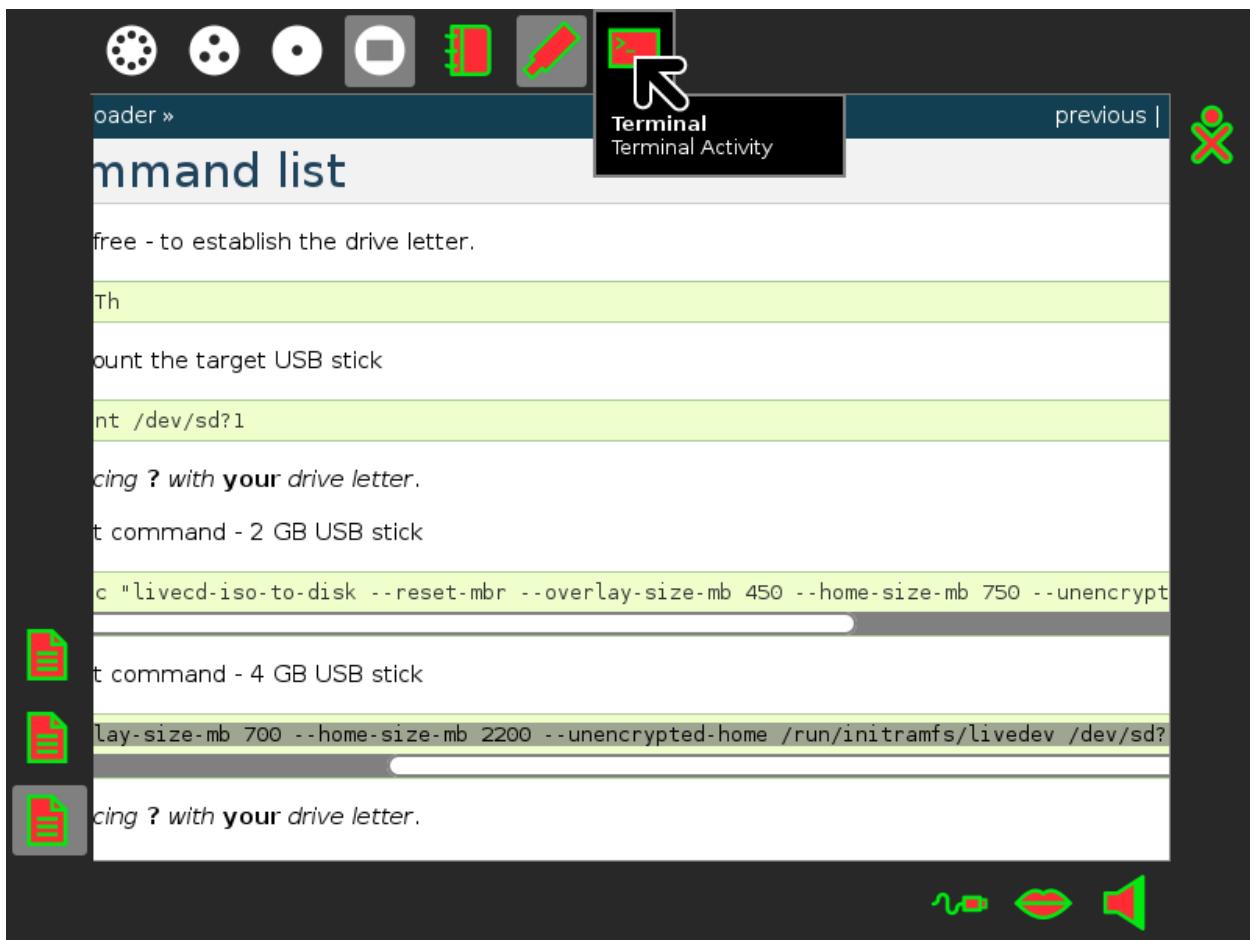
The screenshot shows the SoaS Loader interface with a toolbar at the top featuring icons for file operations and navigation. The main area is titled "Command list". It contains several terminal-like entries:

- Disk free - to establish the drive letter.  
df -Th
- Unmount the target USB stick  
umount /dev/sd?1
- replacing ? with your drive letter.
- Script command - 2 GB USB stick  
su -c "livecd-iso-to-disk --reset-mbr --overlay-size-mb 450 --home-size-mb 750 --unencrypted-
- Script command - 4 GB USB stick  
overlay-size-mb 700 --home-size-mb 2200 --unencrypted-home /run/initramfs/livedev /dev/sd?1"
- replacing ? with your drive letter.

At the bottom, there is a footer bar with icons for file operations and the text "SoaS Loader". Navigation links "previous | next" are also present.

## 5.25 Press F6, Frame key, to switch Activities

Press the function key F6 to bring in the frame. Click on the icon for Terminal.



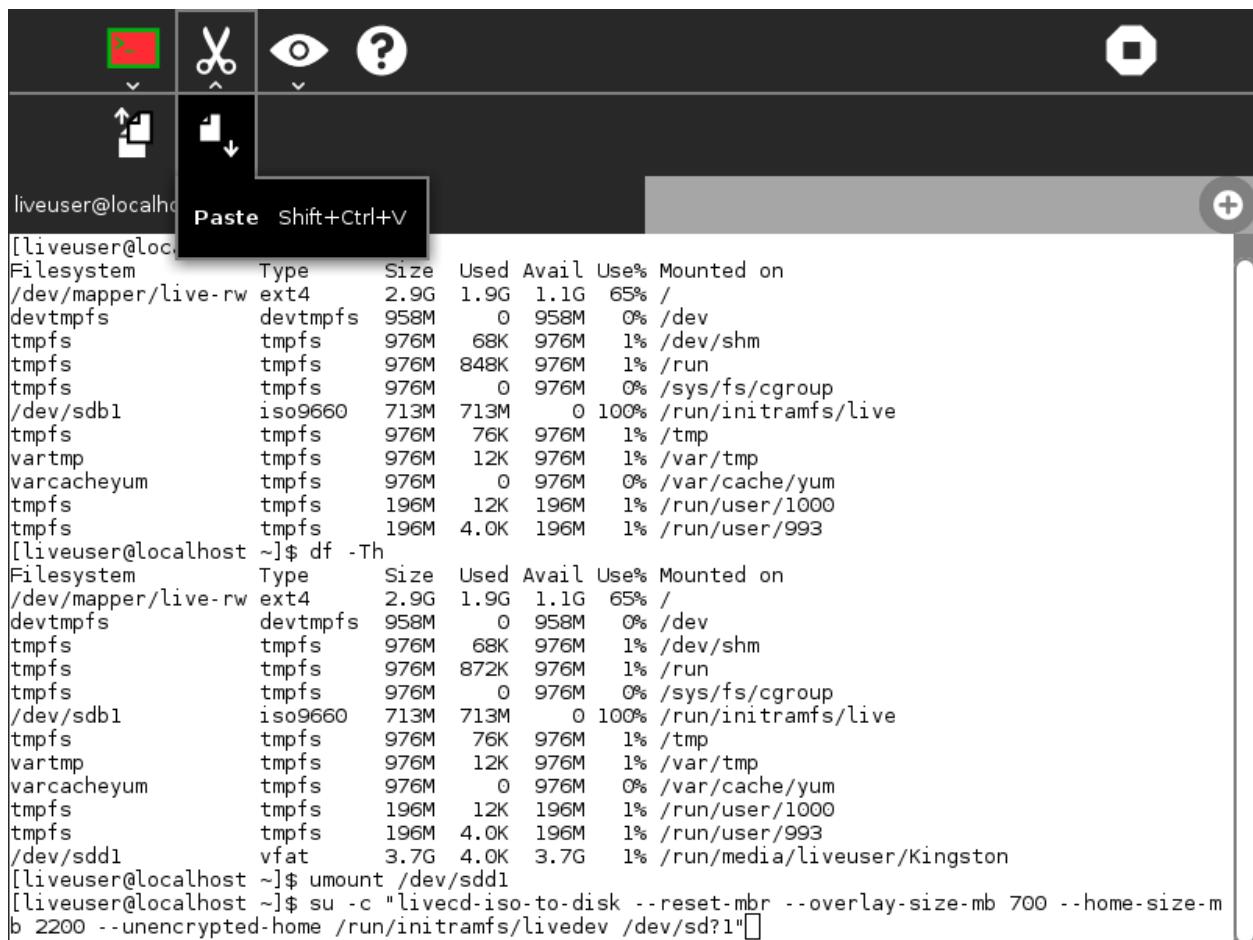
## 5.26 Script, paste

The Terminal opens.

Press the Paste button within the Edit tab.

The command appears at the prompt. Don't press Enter.

Double check you have copied the whole command (check first and last characters).



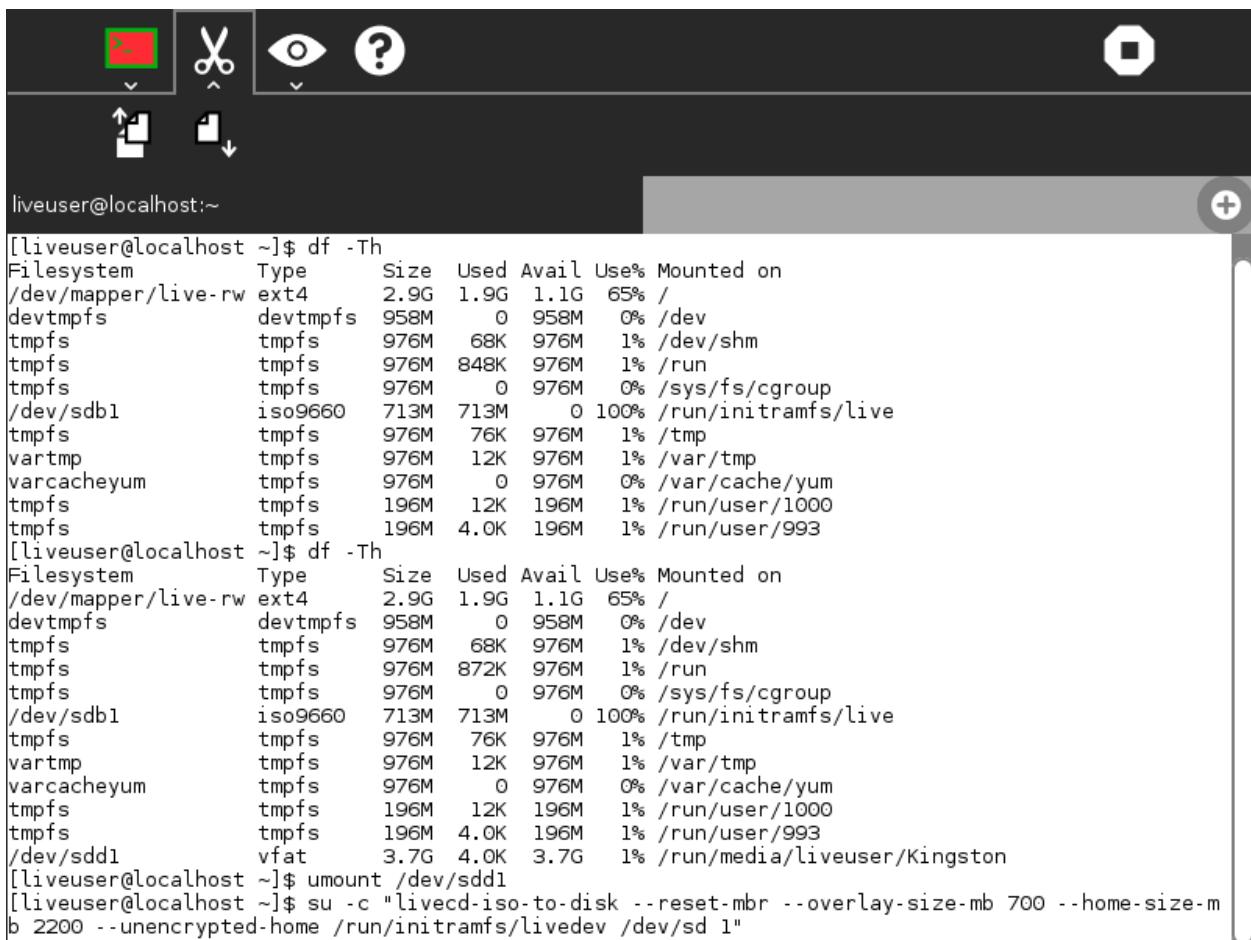
The screenshot shows a terminal window with a dark theme. At the top, there are standard window control icons: a red close button, a scissors icon, an eye icon, a question mark icon, and a maximize/minimize button. Below the title bar, the terminal prompt is [liveuser@localhost ~]\$.

```
[liveuser@localhost ~]$ df -Th
Filesystem      Type    Size  Used Avail Use% Mounted on
/dev/mapper/live-rw ext4   2.9G  1.9G  1.1G  65% /
devtmpfs        devtmpfs  958M    0  958M  0% /dev
tmpfs          tmpfs    976M   68K  976M  1% /dev/shm
tmpfs          tmpfs    976M  848K  976M  1% /run
tmpfs          tmpfs    976M    0  976M  0% /sys/fs/cgroup
/dev/sdb1       iso9660  713M  713M    0 100% /run/initramfs/live
tmpfs          tmpfs    976M   76K  976M  1% /tmp
vartmp         tmpfs    976M   12K  976M  1% /var/tmp
varcacheyum   tmpfs    976M    0  976M  0% /var/cache/yum
tmpfs          tmpfs   196M   12K  196M  1% /run/user/1000
tmpfs          tmpfs   196M  196M  196M  1% /run/user/993
[liveuser@localhost ~]$ df -Th
Filesystem      Type    Size  Used Avail Use% Mounted on
/dev/mapper/live-rw ext4   2.9G  1.9G  1.1G  65% /
devtmpfs        devtmpfs  958M    0  958M  0% /dev
tmpfs          tmpfs    976M   68K  976M  1% /dev/shm
tmpfs          tmpfs    976M  872K  976M  1% /run
tmpfs          tmpfs    976M    0  976M  0% /sys/fs/cgroup
/dev/sdb1       iso9660  713M  713M    0 100% /run/initramfs/live
tmpfs          tmpfs    976M   76K  976M  1% /tmp
vartmp         tmpfs    976M   12K  976M  1% /var/tmp
varcacheyum   tmpfs    976M    0  976M  0% /var/cache/yum
tmpfs          tmpfs   196M   12K  196M  1% /run/user/1000
tmpfs          tmpfs   196M  196M  196M  1% /run/user/993
/dev/sdd1       vfat     3.7G  4.0K  3.7G  1% /run/media/liveuser/Kingston
[liveuser@localhost ~]$ umount /dev/sdd1
[liveuser@localhost ~]$ su -c "livecd-iso-to-disk --reset-mbr --overlay-size-mb 700 --home-size-mb 2200 --unencrypted-home /run/initramfs/livedev /dev/sd?1"
```

## 5.27 Script, edit drive letter

Don't Press **Enter** yet.

Edit the command to correct the drive letter.



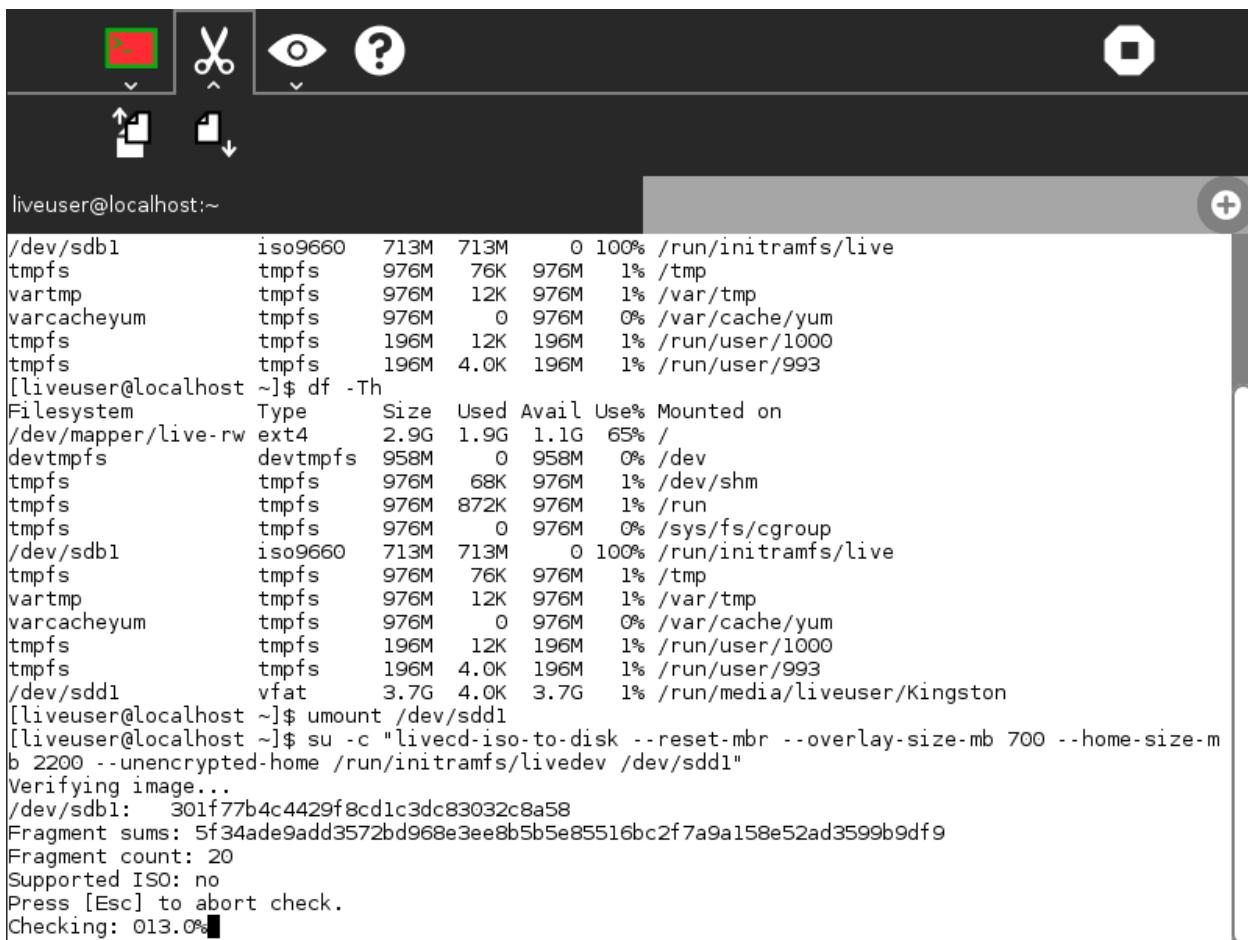
The screenshot shows a Sugar interface with a terminal window open. The terminal window title is "liveuser@localhost:~". The content of the terminal is as follows:

```
[liveuser@localhost ~]$ df -Th
Filesystem      Type  Size  Used Avail Use% Mounted on
/dev/mapper/live-rw ext4  2.9G  1.9G  1.1G  65% /
devtmpfs        devtmpfs 958M   0    958M  0% /dev
tmpfs          tmpfs   976M   68K  976M  1% /dev/shm
tmpfs          tmpfs   976M  848K  976M  1% /run
tmpfs          tmpfs   976M   0    976M  0% /sys/fs/cgroup
/dev/sdb1       iso9660  713M  713M   0  100% /run/initramfs/live
tmpfs          tmpfs   976M   76K  976M  1% /tmp
vartmp         tmpfs   976M   12K  976M  1% /var/tmp
varcacheyum   tmpfs   976M   0    976M  0% /var/cache/yum
tmpfs          tmpfs   196M   12K  196M  1% /run/user/1000
tmpfs          tmpfs   196M  196M   0  1% /run/user/993
[liveuser@localhost ~]$ df -Th
Filesystem      Type  Size  Used Avail Use% Mounted on
/dev/mapper/live-rw ext4  2.9G  1.9G  1.1G  65% /
devtmpfs        devtmpfs 958M   0    958M  0% /dev
tmpfs          tmpfs   976M   68K  976M  1% /dev/shm
tmpfs          tmpfs   976M  872K  976M  1% /run
tmpfs          tmpfs   976M   0    976M  0% /sys/fs/cgroup
/dev/sdb1       iso9660  713M  713M   0  100% /run/initramfs/live
tmpfs          tmpfs   976M   76K  976M  1% /tmp
vartmp         tmpfs   976M   12K  976M  1% /var/tmp
varcacheyum   tmpfs   976M   0    976M  0% /var/cache/yum
tmpfs          tmpfs   196M   12K  196M  1% /run/user/1000
tmpfs          tmpfs   196M  196M   0  1% /run/user/993
/dev/sdd1       vfat    3.7G  4.0K  3.7G  1% /run/media/liveuser/Kingston
[liveuser@localhost ~]$ umount /dev/sdd1
[liveuser@localhost ~]$ su -c "livecd-iso-to-disk --reset-mbr --overlay-size-mb 700 --home-size-mb 2200 --unencrypted-home /run/initramfs/livedev /dev/sd 1"
```

## 5.28 Script, enter

Press **Enter** to start the script running.

It is possible that the script will stop and ask you for further input, but in most cases the stick will be loaded in one go.

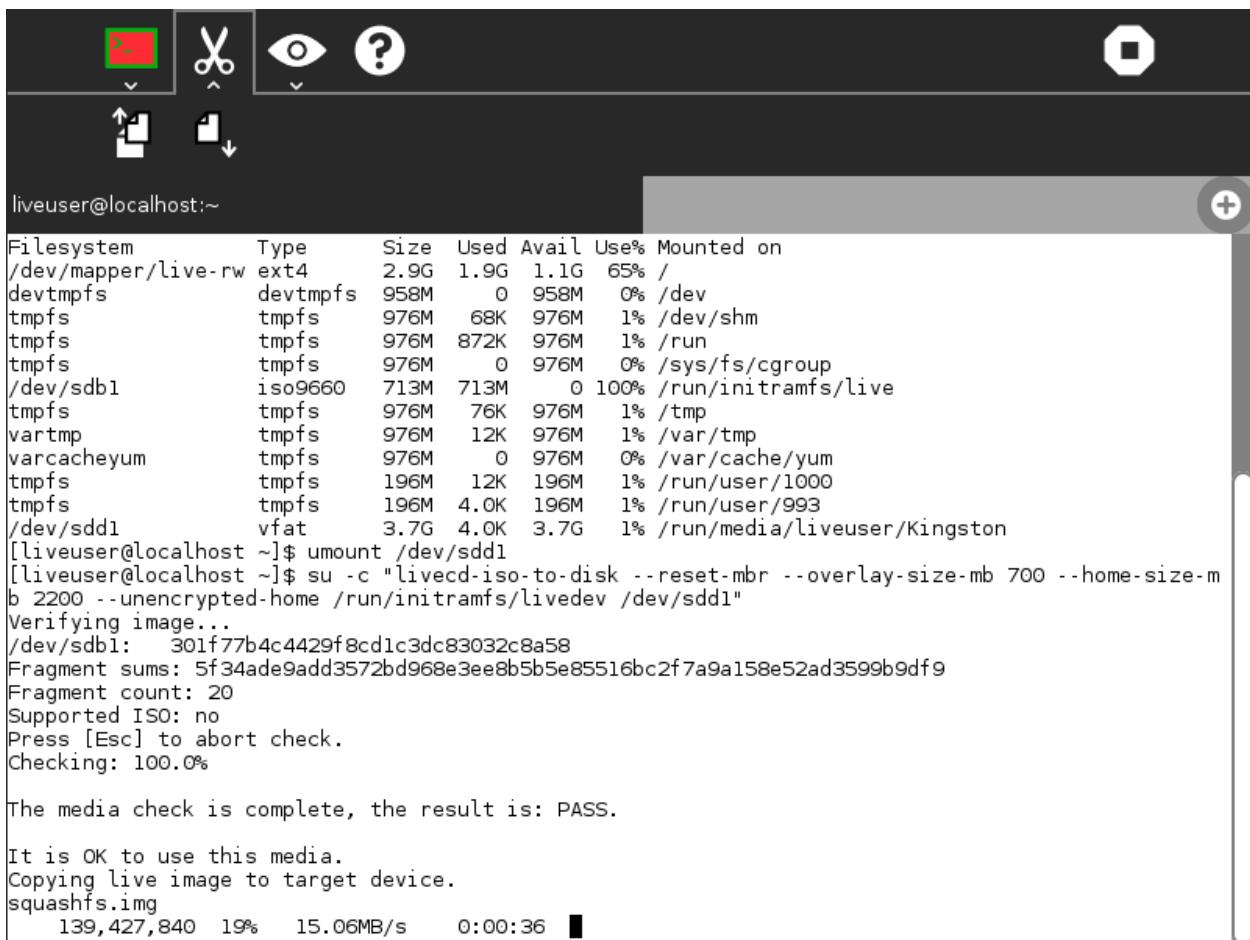


The screenshot shows a terminal window with a dark theme. At the top, there are several icons: a red square with a white minus sign, a pair of scissors, an eye, a question mark, and a hexagon. Below the icons, there are two small arrows pointing up and down. The terminal window has a title bar with the text "liveuser@localhost:~". The main area contains the following command-line session:

```
liveuser@localhost:~$ df -Th
Filesystem      Type  Size  Used  Avail Use% Mounted on
/dev/mapper/live-rw ext4  2.9G  1.9G  1.1G  65% /
devtmpfs        devtmpfs 958M    0  958M  0% /dev
tmpfs           tmpfs   976M   68K  976M  1% /dev/shm
tmpfs           tmpfs   976M  872K  976M  1% /run
tmpfs           tmpfs   976M    0  976M  0% /sys/fs/cgroup
/dev/sdb1        iso9660 713M  713M    0 100% /run/initramfs/live
tmpfs           tmpfs   976M   76K  976M  1% /tmp
vartmp          tmpfs   976M   12K  976M  1% /var/tmp
varcacheyum     tmpfs   976M    0  976M  0% /var/cache/yum
tmpfs           tmpfs   196M   12K  196M  1% /run/user/1000
tmpfs           tmpfs   196M  4.0K  196M  1% /run/user/993
[liveuser@localhost ~]$ df -Th
Filesystem      Type  Size  Used  Avail Use% Mounted on
/dev/mapper/live-rw ext4  2.9G  1.9G  1.1G  65% /
devtmpfs        devtmpfs 958M    0  958M  0% /dev
tmpfs           tmpfs   976M   68K  976M  1% /dev/shm
tmpfs           tmpfs   976M  872K  976M  1% /run
tmpfs           tmpfs   976M    0  976M  0% /sys/fs/cgroup
/dev/sdb1        iso9660 713M  713M    0 100% /run/initramfs/live
tmpfs           tmpfs   976M   76K  976M  1% /tmp
vartmp          tmpfs   976M   12K  976M  1% /var/tmp
varcacheyum     tmpfs   976M    0  976M  0% /var/cache/yum
tmpfs           tmpfs   196M   12K  196M  1% /run/user/1000
tmpfs           tmpfs   196M  4.0K  196M  1% /run/user/993
/dev/sdd1        vfat    3.7G  4.0K  3.7G  1% /run/media/liveuser/Kingston
[liveuser@localhost ~]$ umount /dev/sdd1
[liveuser@localhost ~]$ su -c "livecd-iso-to-disk --reset-mbr --overlay-size-mb 700 --home-size-mb 2200 --unencrypted-home /run/initramfs/livedev /dev/sdd1"
Verifying image...
/dev/sdb1: 301f77b4c4429f8cd1c3dc83032c8a58
Fragment sums: 5f34ade9add3572bd968e3ee8b5b5e85516bc2f7a9a158e52ad3599b9df9
Fragment count: 20
Supported ISO: no
Press [Esc] to abort check.
Checking: 013.0%
```

## 5.29 Script running

It might take five to twenty minutes ...



```

liveuser@localhost:~ 
Filesystem      Type   Size  Used Avail Use% Mounted on
/dev/mapper/live-rw ext4    2.9G  1.9G  1.1G  65% /
devtmpfs       devtmpfs  958M    0  958M  0% /dev
tmpfs          tmpfs    976M   68K  976M  1% /dev/shm
tmpfs          tmpfs    976M  872K  976M  1% /run
tmpfs          tmpfs    976M    0  976M  0% /sys/fs/cgroup
/dev/sdb1       iso9660  713M  713M    0 100% /run/initramfs/live
tmpfs          tmpfs    976M   76K  976M  1% /tmp
vartmp         tmpfs    976M   12K  976M  1% /var/tmp
varcacheyum    tmpfs    976M    0  976M  0% /var/cache/yum
tmpfs          tmpfs    196M   12K  196M  1% /run/user/1000
tmpfs          tmpfs    196M  4.0K  196M  1% /run/user/993
/dev/sdd1       vfat     3.7G  4.0K  3.7G  1% /run/media/liveuser/Kingston
[liveuser@localhost ~]$ umount /dev/sdd1
[liveuser@localhost ~]$ su -c "livecd-iso-to-disk --reset-mbr --overlay-size-mb 700 --home-size-mb 2200 --unencrypted-home /run/initramfs/livedev /dev/sdd1"
Verifying image...
/dev/sdb1: 301f77b4c4429f8cd1c3dc83032c8a58
Fragment sums: 5f34ade9add3572bd968e3ee8b5b5e85516bc2f7a9a158e52ad3599b9df9
Fragment count: 20
Supported ISO: no
Press [Esc] to abort check.
Checking: 100.0%
The media check is complete, the result is: PASS.
It is OK to use this media.
Copying live image to target device.
squashfs.img
  139,427,840  19%  15.06MB/s  0:00:36 ■

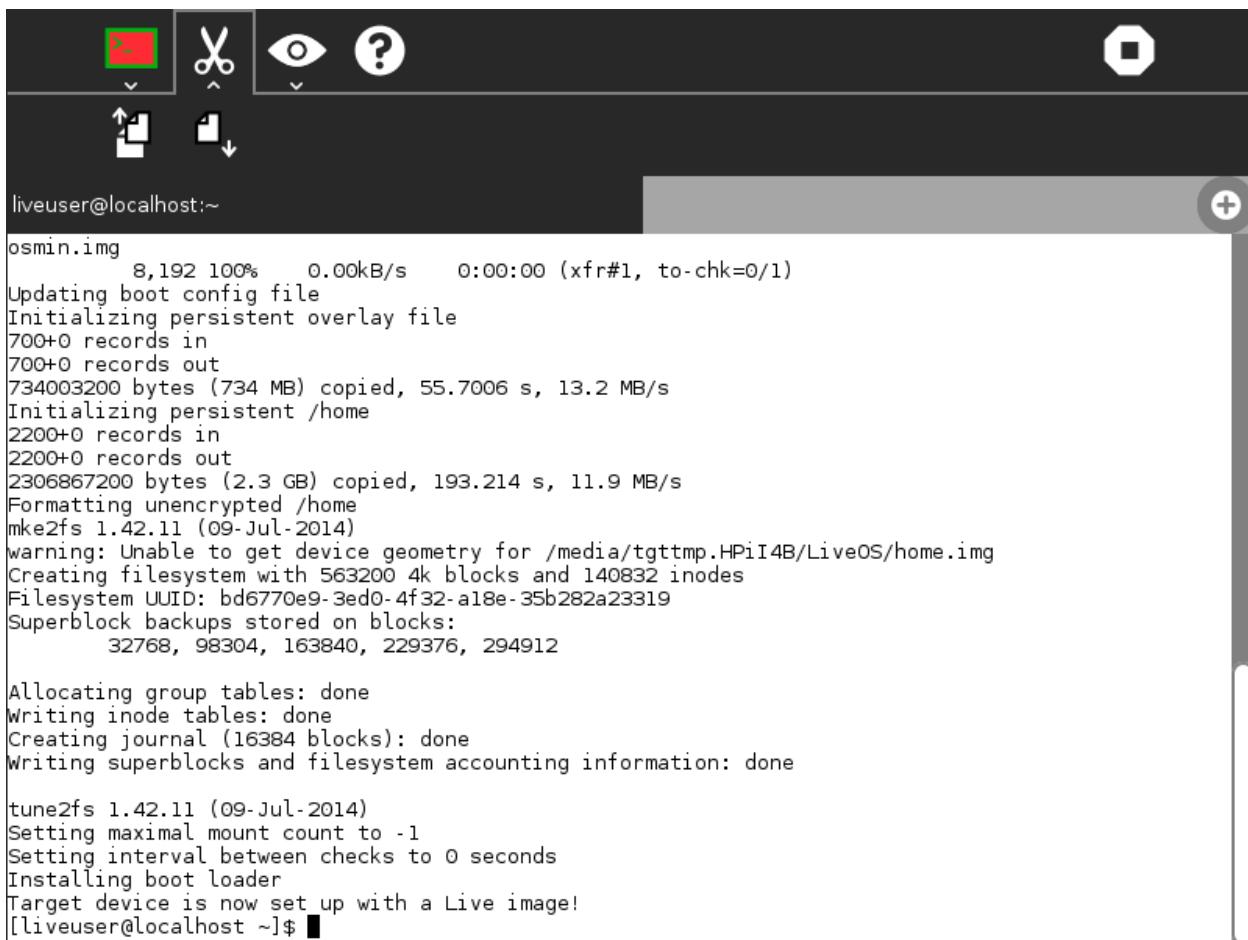
```

## 5.30 Script finishes

... and when successful will finish by reporting

“Target device is now set up with a Live image!”

Shutdown the physical machine. Remember to remove the CD (or other host media you just used).



The screenshot shows a terminal window with a dark theme. At the top, there are several icons: a red square with a white minus sign, a pair of scissors, an eye, a question mark, and a hexagon. Below the icons is a toolbar with arrows pointing up, down, left, and right. The terminal window has a title bar that says "liveuser@localhost:~". The main area of the terminal contains the following text:

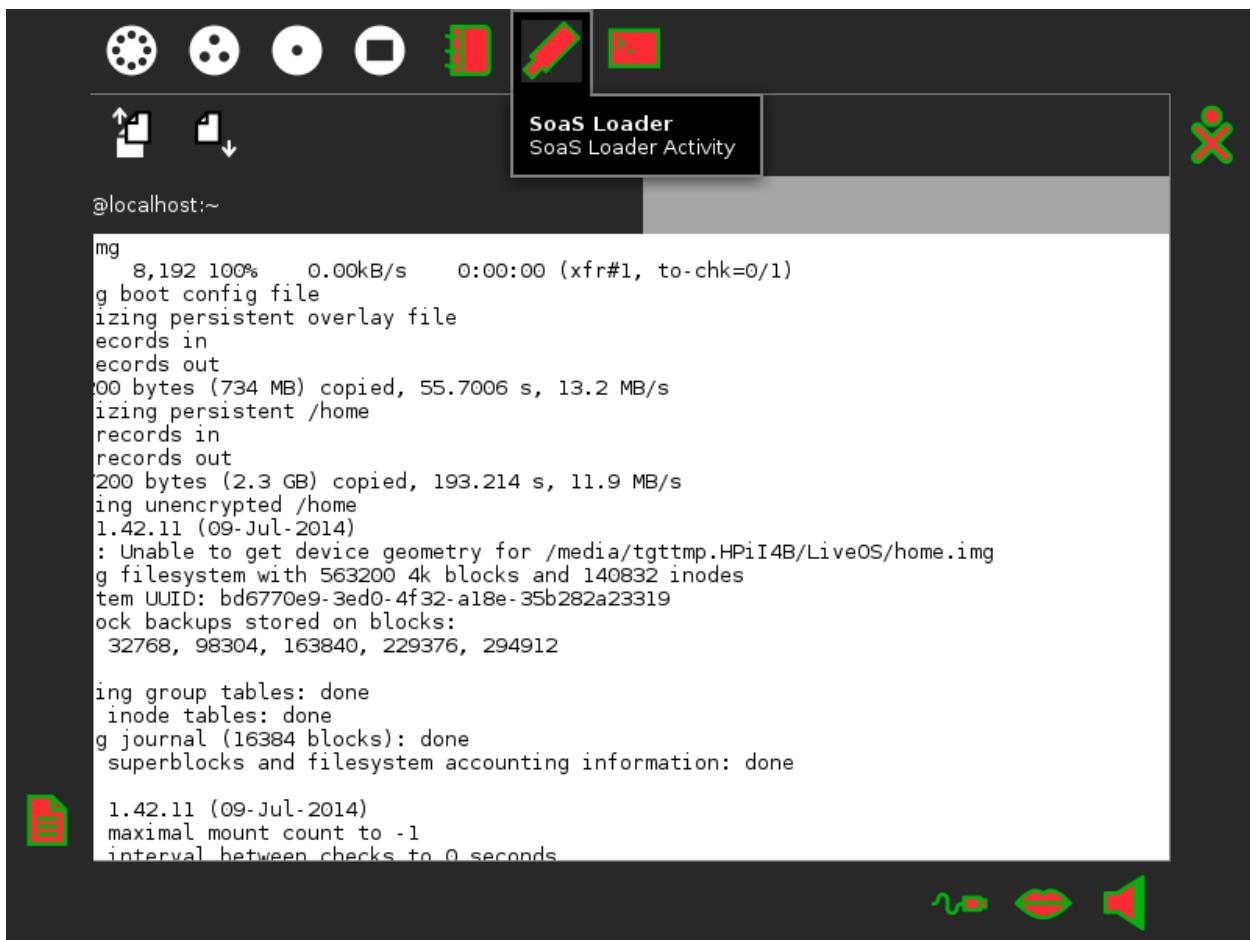
```
osmin.img
 8,192 100% 0.00kB/s 0:00:00 (xfr#1, to-chk=0/1)
Updating boot config file
Initializing persistent overlay file
700+0 records in
700+0 records out
734003200 bytes (734 MB) copied, 55.7006 s, 13.2 MB/s
Initializing persistent /home
2200+0 records in
2200+0 records out
2306867200 bytes (2.3 GB) copied, 193.214 s, 11.9 MB/s
Formatting unencrypted /home
mke2fs 1.42.11 (09-Jul-2014)
warning: Unable to get device geometry for /media/tgtmp.HPiI4B/LiveOS/home.img
Creating filesystem with 563200 4k blocks and 140832 inodes
Filesystem UUID: bd6770e9-3ed0-4f32-a18e-35b282a23319
Superblock backups stored on blocks:
      32768, 98304, 163840, 229376, 294912

Allocating group tables: done
Writing inode tables: done
Creating journal (16384 blocks): done
Writing superblocks and filesystem accounting information: done

tune2fs 1.42.11 (09-Jul-2014)
Setting maximal mount count to -1
Setting interval between checks to 0 seconds
Installing boot loader
Target device is now set up with a Live image!
[liveuser@localhost ~]$ █
```

## 5.31 Press F6, Frame key

Click on the SoaS Loader Activity icon if you want to switch back to the tutorial.



## 5.32 Transcript

This is the transcript of the successful build carried out in this tutorial.

Filesystem	Type	Size	Used	Avail	Use%	Mounted on
/dev/mapper/live-rw	ext4	2.9G	1.9G	1.1G	65%	/
devtmpfs	devtmpfs	958M	0	958M	0%	/dev
tmpfs	tmpfs	976M	68K	976M	1%	/dev/shm
tmpfs	tmpfs	976M	848K	976M	1%	/run
tmpfs	tmpfs	976M	0	976M	0%	/sys/fs/cgroup
/dev/sdb1	iso9660	713M	713M	0	100%	/run/initramfs/live
tmpfs	tmpfs	976M	76K	976M	1%	/tmp
vartmp	tmpfs	976M	12K	976M	1%	/var/tmp
varcacheyum	tmpfs	976M	0	976M	0%	/var/cache/yum
tmpfs	tmpfs	196M	12K	196M	1%	/run/user/1000
tmpfs	tmpfs	196M	4.0K	196M	1%	/run/user/993

USB stick inserted here.

Filesystem	Type	Size	Used	Avail	Use%	Mounted on
/dev/mapper/live-rw	ext4	2.9G	1.9G	1.1G	65%	/
devtmpfs	devtmpfs	958M	0	958M	0%	/dev

```
tmpfs          tmpfs      976M   68K  976M   1% /dev/shm
tmpfs          tmpfs      976M  872K  976M   1% /run
tmpfs          tmpfs      976M     0  976M   0% /sys/fs/cgroup
/dev/sdb1      iso9660    713M  713M     0 100% /run/initramfs/live
tmpfs          tmpfs      976M   76K  976M   1% /tmp
vartmp         tmpfs      976M   12K  976M   1% /var/tmp
varcacheyum    tmpfs      976M     0  976M   0% /var/cache/yum
tmpfs          tmpfs      196M   12K  196M   1% /run/user/1000
tmpfs          tmpfs      196M   4.0K  196M   1% /run/user/993
/dev/sdd1      vfat       3.7G  4.0K  3.7G   1% /run/media/liveuser/Kingston
[liveuser@localhost ~]$ umount /dev/sdd1
[liveuser@localhost ~]$ su -c "livecd-iso-to-disk --reset-mbr --overlay-size-mb 700 --home-size-mb 2200
Verifying image...
/dev/sdb1: 301f77b4c4429f8cd1c3dc83032c8a58
Fragment sums: 5f34ade9add3572bd968e3ee8b5b5e85516bc2f7a9a158e52ad3599b9df9
Fragment count: 20
Supported ISO: no
Press [Esc] to abort check.
Checking: 100.0%

The media check is complete, the result is: PASS.

It is OK to use this media.
Copying live image to target device.
squashfs.img
 703,807,488 100%  9.12MB/s  0:01:13 (xfr#1, to-chk=0/1)
osmin.img
  8,192 100%  0.00kB/s  0:00:00 (xfr#1, to-chk=0/1)
Updating boot config file
Initializing persistent overlay file
700+0 records in
700+0 records out
734003200 bytes (734 MB) copied, 55.7006 s, 13.2 MB/s
Initializing persistent /home
2200+0 records in
2200+0 records out
2306867200 bytes (2.3 GB) copied, 193.214 s, 11.9 MB/s
Formatting unencrypted /home
mke2fs 1.42.11 (09-Jul-2014)
warning: Unable to get device geometry for /media/tgttmp.HPiI4B/LiveOS/home.img
Creating filesystem with 563200 4k blocks and 140832 inodes
Filesystem UUID: bd6770e9-3ed0-4f32-a18e-35b282a23319
Superblock backups stored on blocks:
 32768, 98304, 163840, 229376, 294912

Allocating group tables: done
Writing inode tables: done
Creating journal (16384 blocks): done
Writing superblocks and filesystem accounting information: done

tune2fs 1.42.11 (09-Jul-2014)
Setting maximal mount count to -1
Setting interval between checks to 0 seconds
Installing boot loader
Target device is now set up with a Live image!
[liveuser@localhost ~]$
```

## 5.33 Boot Sugar on a Stick

With your newly loaded Live USB stick plugged in to it, restart (*or reboot*) the machine.



[http://wiki.sugarlabs.org/go/Sugar\\_on\\_a\\_Stick/Boot](http://wiki.sugarlabs.org/go/Sugar_on_a_Stick/Boot).



---

## Appendix

---

### 6.1 For the curious

Provided with the download is the shell script *livecd-iso-to-disk*, which is included in the LiveOS directory of your Live CD (or other LiveOS media).

Let's study the command we use to run the script *livecd-iso-to-disk* in detail.

```
su -c "livecd-iso-to-disk --reset-mbr --overlay-size-mb 450 --home-size-mb 750 --unencrypted-home /run/initramfs/livedev /dev/sd?1"
```

su -c "	A device to give you superuser privileges for just the one command in quotes.
livecd-iso-to-disk	The script (or program) we are using.
--reset-mbr	Create a boot record on the target USB stick, does not touch the PC master boot record.
--overlay-size-mb 450	Sets the amount of space available for system changes.
--home-size-mb 750	Sets the amount of space available for changes in Activities and user's work.
--unencrypted-home	The stick will not be encrypted.
/run/initramfs/livedev	The source, on your CD or the LiveOS host you are using.
/dev/sd?1	The target USB stick.

#### 6.1.1 How did we decide the overlay and home size?

In the script command these sizes (in mb) are used, with the livecd-iso size a rough estimate.

livecd-iso	700
overlay-size	400
home-size	750
Total	1850

The numbers we used in the tutorial will fit on a 2 GB USB stick with some unused space.

When you run *livecd-iso-to-disk* with impossibly large home and overlay sizes, the script will be interrupted and you will be given the chance to specify sizes which will optimally fit your stick.

#### 6.1.2 Need to know more?

type

```
livecd-iso-to-disk --help
```

in the Terminal.

### **6.1.3 Credits**

This presentation is informed by the Sugar Labs [wiki](#) and this page in the Fedora [documentation](#).



[http://wiki.sugarlabs.org/go/Sugar\\_on\\_a\\_Stick/Project\\_sitemap](http://wiki.sugarlabs.org/go/Sugar_on_a_Stick/Project_sitemap)

## **6.2 Prerequisites**

To run this Activity successfully you must be running the Fedora Spin named **Sugar on a Stick**.

### **6.2.1 Stage 0, Download**

Involves downloading the *Sugar\_on\_a\_Stick.iso* from Sugar [Downloads](#).

If you are not yet running Sugar, the linked page contains more information about the SooS download and getting it.

### **6.2.2 Stage 1, Make bootable media**

The software contained in the download can be transferred to a CD to make a bootable Live CD. This is referred to as burning or writing a CD. This can be done using the default CD writing software of a PC.

There are other options which might suit some users.

You could use a program called [UNetbootin](#) to write the Sugar image to a USB stick, following these [instructions](#). This is useful where you do not have a CD writer.

Expert Linux command line users might use the dd command to transfer the *Sugar\_on\_a\_Stick.iso* to a USB stick.

Both of the above methods produce a non-persistent Sugar on a Stick. A non-persistent Sugar on a Stick, like a Live CD, cannot save work after shutdown and reboot.

You could also use another Sugar on a Stick made using the SooS Loader method.

You will then have booted your PC from one of the above.

### **6.2.3 Stage 2, the subject of this tutorial**

SooS Loader transfers the software producing a USB stick, or flashdrive, with *persistence*, where all work and changes are automatically saved, provided the system is shutdown correctly.

### **6.2.4 BIOS boot options**

You will need to ensure the computer you plan to use is capable of booting from a USB stick.

On older machines, you will probably need to make a change in the **BIOS** (see your computer's hardware documentation, it can often be found online). Change the Boot Order, so that "Boot from CD" or "Boot from USB" comes before "Boot from Hard Drive".

Many newer computers detect the USB device as a hard drive.

**Tip** As the computer starts up, look out for a message on the screen inviting you to press a key, say F2, F12, F10, Delete, F11 or Esc. Press the appropriate key to interrupt the regular boot.



<http://www.pendrivelinux.com/usb-bios-boot-options/>

If you need more information, search for Change the Boot Order in BIOS, with the make and/or model of your machine in the search.