

# IMAGINARY

open mathematics

## CINDERELLA - TECHNICAL MANUAL FOR INSTALLATIONS

### AT EXHIBITIONS AND IN MUSEUMS

Version 1.0 (04.11.2012)

## **OPERATING SYSTEM AND HARDWARE REQUIREMENTS**

We generally use the UBUNTU operating system and recommend it for fixed installations at exhibitions and in museums. General hardware recommendations for the computer:

- Processor family: Intel Core i5 or higher
- Processor model: 660
- Speed: 3,33 GHz
- Memory: 4 GB DDR3
- CD-Rom
- Graphic Card: a standard graphic card (no special graphic card is needed for CINDERELLA)
- Mouse
- Keyboard

### **Special hardware requirements:**

- Touch screen or other big screen/monitor/TV with mouse type input device

Note: that CINDERELLA will also run on systems with normal graphic cards and slower computers. Surfer will probably be slower in raytracing the picture, but it will still run.

## **UBUNTU**

For installations in exhibitions and museums we use Ubuntu 10.04 (LTS, Desktop Edition, 32 Bit). Info: We are also just working on our own UBUNTU version called IMAGIBUNTU which offers a small system specialized for museums and exhibitions. We will add information here once the system is ready. It will also be available on the IMAGINARY website.

Please install this version, to be downloaded here:

<http://releases.ubuntu.com/lucid/>

While installing use the following setup:

Language: English

Keyboard: your local keyboard

Name/Password: can be chosen by you (please remember it, since you will need it during installation several times!) Login Mode: always (without password)

After the installation, some settings have to be changed:

- 1) Turn off Visual Effects (System --> Preferences --> Appearance)
- 2) Turn off Screen Saver (System --> Preferences --> Screen Saver)
- 3) Adjust Power Management (System --> Preferences --> Power Management) - no black screen, no turning off (put all on "never").

## **JAVA**

For this you need an internet connection for the computer.

To install Java open a terminal (Application --> Accessories --> Terminal). Then execute the following commandos (one after the other, pressing "ENTER" after each line). Then the package will be installed automatically. (Note: you will maybe have to enter the password you set in the installation process to confirm adding new software)

```
sudo add-apt-repository "deb http://archive.canonical.com/ lucid
partner"
sudo apt-get update
sudo apt-get install sun-java6-jre sun-java6-plugin sun-java6-fonts
```

You can test the installation with this commando

```
java -version
```

(you should get the version number of the installed Java)

## **CINDERELLA**

If you have an internet connection you can download the program directly from the web-download-link. There are two versions with slightly different applets (one more "Mathematics and Nature" and the other one "Mathematics, Chaos, Physics and Simulation")

Technically Cinderella is a collection of html with java applets. To start it, run one of the index files (for example index-en.html). To change texts or the available languages you have to edit the respective html files.

To run Cinderella at an exhibition we recommend using the FireFox browser in Kiosk mode, for example using the r-kiosk plugin. See the document "Cinderella - installation of the kiosk mode in FireFox" to be downloaded at the platform.

CINDERELLA is best to be used in 1024 x 768 (for video projectors) but also runs in higher resolution (it does not run properly on smaller screen resolutions).  
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## **TOUCHSCREEN DRIVER**

Please ensure that the touch screen you use offers Linux/Ubuntu support. Unfortunately many companies do not or only offer outdated drivers.

After installing the driver calibration is a main issue. Sometimes, calibration only worked in Windows (while once it was calibrated it then also applied to Ubuntu on the same system). Some drivers enable property bars that have to be hidden or turned off.

## **Contact**

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