Software recommendation

There's a lot of software that can be used for astrophysics and the laboratory courses. Here we list some recommendations that proofed to be useful at some point.

Data reduction

The analysis of data is the main goal in the laboratory courses, some of which are described/linked below.

Image and data visualization

- DS9
- QFitsView (has more functions than DS9)

Deep-Sky imaging

- Fitswork

Spectroscopy

- IRIS
- Visual Spec

Image manipulation

GIMP

gimp

Text editing

Latex

Windows

A minimal installation of the basic Latex packages: MikTex

The large installation (Caution! It can take >30min to install everything.): TexLive

Linux

For Linux we also have TexLive. The following packages are required:

```
texlive texlive-lang-german texlive-doc-de texlive-latex-extra
```

Camera controlling

Our single reflex mirror camera (Cannon 700D) supports remote control via tethered shooting on a laptop. For this purpose one needs the following driver package

gphoto2

and a controll software:

Entangle, recommended

Darktable, (too) high number of functions

Orientation at the night sky

Stellarium

Stellarium - Astronomy program that simulates a planetarium

We also have a small introduction to Stellarium.

Object visibility

http://catserver.ing.iac.es/staralt/index.php

Apps

There are many Apps in the stores, even though most are not very useful for study purposes. A small selection is listed below. (Some might be in German.)

Android

Sky Map

GooglePlay

SkEye Planetarium

GooglePlay

Stellarium mobile

Free version: GooglePlay
Paid plus version: GooglePlay

Astro Panel

GooglePlay

Phases of the moon

GooglePlay

Apple

P.M. Planetarium (needs payment)

App Store

SSH clients

For the data reduction a linux work station is provided. For the remote login on this machine from a Windows computer one of the following software options is required :

- MobaXterm
- PuTTY (the SSH client) in combination with Xming(the X window server)
- a virtual machines that run some Linuxversion
- or one of the several other SSH client for Windows

We also have a guide on how to use these software solutions to get access to our workstation.

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