3d Brain Atlas Reconstructor Installation (Ubuntu)

Note: This procedure is valid for *Ubuntu 9.04* and *Ubuntu 10.04 LTS* and was tested on 4.08.2010. For guides related to *Ubuntu 8.04* see barSoftwareinstallation8.04?. Installation on other Ubuntu versions or other Linux distributions is similar, however not described yet.

1. 3d Brain Atlas Reconstructor Installation (Ubuntu)
    1. Installing required packages
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Installing required packages

Installation consists of following steps (just paste code blocks into terminal it should be fine (Ubuntu 9.10).

1. Installing Visualization Toolkit and other graphic libraries:

```
sudo apt-get install \
libvtk5.2 libvtk5-dev libvtk5.2-qt4 libvtk5-qt4-dev \
tk8.5 tk8.5-dev \
python-vtk libgtkgl2.0-1 libgtkgl2.0-dev libgtkglext1 librsvg2-2 python-nifti
```

2. Installing python-related packages:

```
sudo apt-get install \
python-gtkglext1 python-rsvg python-opengl python-numpy python-scipy python-wxgtk2.6
```

3. Other packages:

```
sudo apt-get install \
potrace pstoedit python-setuptools subversion python-epydoc
```

If You are developer, you may also want to install optional packages with documentation:

```
sudo apt-get install vtkdata vtk-doc vtk-examples
```

If you use Ubuntu 10.04 install following packages:

```
sudo apt-get install \
libvtk5.2 libvtk5-dev libvtk5.2-qt4 libvtk5-qt4-dev \
tk8.5 tk8.5-dev \
python-vtk libgtkgl2.0-1 libgtkgl2.0-dev libgtkglext1 librsvg2-2 python-nifti

sudo apt-get install \
python-gtkglext1 python-rsvg python-opengl python-numpy python-scipy python-wxgtk2.6

sudo apt-get install \
potrace pstoedit python-setuptools subversion python-epydoc
```

If you use Ubuntu 10.10 install following packages:

```
sudo apt-get install \
```

```
libvtk5.4 libvtk5-dev libvtk5.4-qt4 libvtk5-qt4-dev \
tk8.5 tk8.5-dev \
python-vtk libgtkgl2.0-1 libgtkgl2.0-dev libgtkglext1 librsvg2-2 python-nifti

sudo apt-get install \
python-gtkglext1 python-rsvg python-opengl python-numpy python-scipy python-wxgtk2.8

sudo apt-get install \
potrace pstoedit python-setuptools subversion python-epydoc
```

Once all packages are installed, it's time to create directory structure:

Getting code

It is assumed that main directory dedicated for software is `/home/$USERNAME/3dbar`. if You want to install to another directory, please replace `3dbar` with desired path.

In order to get latest stable version use following command:

```
svn checkout http://svn.3dbar.org/svn/3dBrainAtlasReconstructor/tags/latest /home/$USERNAME/3dbar
```

or get working code snapshot:

```
svn checkout http://svn.3dbar.org/svn/3dBrainAtlasReconstructor/trunk/ /home/$USERNAME/3dbar
```

then create directory where datasets will be stored:

```
mkdir -p /home/$USERNAME/3dbar/atlases
```

Created directories have following purposes:

- **bin**: Holds all executable files, atlas parsers and auxiliary scripts
- **lib**: Holds 3dBAR api
- **atlases**: Directory, where source data, *CAF datasets* and reconstructed models are stored. Each dataset (denoted as DATASET_NAME) contains following subdirectories:
    - atlases/DATASET_NAME/src : Here source data is located. It may be put manually by user or ie. downloaded from internet depending on particular parser.
    - atlases/DATASET_NAME/caf : Is the directory where CAF dataset is generated by particular parsers.
    - atlases/DATASET_NAME/reconstructions : Directory for reconstructed models.