3d Brain Atlas Reconstructor Installation (Ubuntu)

Note: This procedure is valid for *Ubuntu 9.04* and *Ubuntu 10.04 LTS* and was tested on 4.08.2011. 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. Installing required packages
2. Getting code

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.