CeX3D Inverse: Installation Guide 64-Bit Linux Command Line Version

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The following are online links for manuals and tutorials for CeX3D Inverse:

- `http://www.cex3d.net/inverse/documentation/manuals/installation.html`
  - Installation Guides

- `http://www.cex3d.net/inverse/documentation/manuals/usergui.html`
  - User's Manual GUI Version

- `http://www.cex3d.net/inverse/documentation/manuals/usercmd.html`
  - User's Manual Command Line Version

- `http://www.cex3d.net/inverse/documentation/dosanddonts/index.html`
  - DOs and DONTs Tutorial

This document is also available in PDF format:

- `http://www.cex3d.net/inverse/documentation/manuals/installationcmd64bitlinux.pdf`

The following sections constitute the installation guide for the 64-bit Linux command line version of CeX3D Inverse. This guide covers both CeX3D Inverse NCU and CeX3D Inverse Pro.

1.1 Requirements for Linux 64-Bit

CeX3D Inverse for 64-bit Linux requires the following libraries:

- The GMP (GNU Multiple Precision Arithmetic) library

- The SDL (Simple Directmedia Layer) library

- The SDL_image library

- The image libraries that SDL_image depend on

The installation section explains how they are commonly installed.

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1.2 Installation for Linux 64-Bit

To install CeX3D Inverse for 64-bit Linux, do the following:

1. Install the necessary libraries: GMP (version 10), SDL (version 1.2), SDL_image (version 1.2) and the image libraries that SDL_image depend on. On a Ubuntu Linux system, this corresponds to the packages `libgmp-dev`, `libsdl1.2-dev` and `libsdl-image1.2-dev` (and its dependencies). Normally, they can be installed by executing the following command in a shell:

   apt-get install libgmp-dev libsdl1.2-dev libsdl-image1.2-dev

   This command requires that you have administrator rights. You can add the command sudo in front, to get these rights (password required), i.e.:

   sudo apt-get install libgmp3-dev libsdl1.2-dev libsdl-image1.2-dev

2. Download CeX3D Inverse (which is actually its installer) if you have not already done so

3. Execute the installer in a shell from the directory where it was downloaded: On Linux you first need to set the downloaded installer's permissions to executable before you can run it, e.g. by this command:

   chmod 777 ./installcex3dinverse_cmd_ncu_alpha_0_7_0_0_x86linux64bit

   Now run it:

   ./installcex3dinverse_cmd_ncu_alpha_0_7_0_0_x86linux64bit

   The installer requires that you have administrator rights. You can add the command sudo in front to get these rights (password required), i.e.:

   sudo ./installcex3dinverse_cmd_ncu_alpha_0_7_0_0_x86linux64bit

4. Follow the installation instructions, which includes accepting the End-User License Agreement and specifying where the program should be installed, e.g. /usr/local/bin/ by default. We recommend that you install it in a place that your PATH environment variable points to, since otherwise you will need to prefix the c3di command with where it is installed every time you run it

5. If you do not wish to or do not have administrator rights to install CeX3D Inverse system-wide under e.g. /usr/local/, it is possible to install it for a single user in that user's home directory, e.g. under /home/myuser/CeX3DInverse/ for the user myuser. If you are installing anywhere else than under /usr/local/ or a user's home directory, make sure that you know what you are doing

6. If you have installed CeX3D Inverse in a place that the PATH environment variable does not point to, you can normally edit your PATH environment variable, typically in the hidden file .profile in your user home directory, but this depends on your Linux system. Refer to your Linux system documentation if in doubt