wget <https://www.ccpem.ac.uk/downloads/ccpem_distributions/ccpem-1.6.0-linux-x86_64.tar.gz>

apt-get install bzr make cmake wget g++ gfortran m4 patch \

default-jdk libxml2-dev libxt-dev libfontconfig1-dev libxrender-dev libxinerama-dev \

libxaw7-dev swig

libqt4-dev libqtwebkit-dev python-dev (python-dev-is-python2)

apt install libncurses5 libopengl0 libtinfo5 libxcb-xinerama0 libxcb-xinput0

apt install tcsh

./ccp4-8.0-setup

./BINARY.setup

source /opt/xtal/ccp4-8.0/bin/ccp4.setup-sh

**CCP4-8.0 Installation Instructions**

Note: only 64-bit systems are supported.

**Windows**

**Conventional installation for Current User and All Users**

1. Recommended: disable Windows Defender for the duration of installation and scan installation directory after the installation.
2. Any pre-existing installation of CCP4-8 must be uninstalled. (\*) (\*\*)
3. Download EXE-installer ccp4-8.0.XXX-win64.exe. (\*\*\*)
   1. To install for Current User, start the installer normally and follow the instructions. If CCP4 shortcuts are selected on Installation Features page, they are installed on Desktop and in Start Menu of the Current Users.
   2. To install For All Users, start the installer by "Ctrl-click > Run as Administrator" and follow the instructions. If CCP4 shortcuts are selected on Installation Features page, they are installed on Public Desktop and in Public Start Menu.
4. Recommended: (a) run Defender on the Installation Directory to ensure quick first start of programs (b) reboot your computer.

**Installation for Current User and All Users from ZIP-file**

1. Recommended: (a) install 7-zip and use it in Step 2; (b) disable Windows Defender for the duration of installation and scan installation directory after the installation.
2. Download and unpack ZIP-file ccp4-8.0.XXX-win64.zip. (\*\*\*)
3. Move the Installation folder CCP4-8 to the desired location and open it in File Explorer.
   1. To install for Current User only, start install\_ccp4.exe found in the folder CCP4-8, and follow the instructions. If CCP4 shortcuts are selected on Installation Features page, they are installed on Desktop and in Start Menu of the Current Users.
   2. To install For All Users, start install\_ccp4.exe found in the folder CCP4-8  by "Ctrl-click > Run as Administrator" and follow the instructions. If CCP4 shortcuts are selected on Installation Features page, they are installed on Public Desktop and in Public Start Menu.
4. Recommended: (a) run Defender on the Installation Directory to ensure quick first start of programs (b) reboot your computer.

(\*) You would not normally need to uninstall and install again - updates will be provided throughout the release and available via CCP4 Update manager.  
  
(\*\*) If you have CCP4-7.1 or earlier installation on your computer, you can keep it.  
  
(\*\*\*) XXX stands for the latest minor version of CCP4-8.0. If needed, you can roll back to earlier minor version using CCP4 Update manager.

**Installation of Cloud Tutorials**

1. Download and unpack CloudTutorials.zip (shown as Cloud Tutorials on the CCP4 Download page).
2. Start CCC4Cloud Config using e.g. shortcut with gear and cloud on your Desktop
3. In the section Cloud Tutorials select path to unpacked folder and press Apply and Close.

**Uninstallation options**

1. Search for uninstall\_ccp4.exe in the Search window next to Start button and start it normally (in case of installation for Current User) or Ctrl click > Run as Administrator (in case of installation for All Users).
2. Find installation folder (usually CCP4-8) and open it in File Explorer and start it normally (in case of installation for Current User) or Ctrl click > Run as Administrator (in case of installation for All Users).
3. In case of installation for All Users only, CCP4-8 can also be uninstalled from Apps & Features.

**Non-Latin and special characters in path to temporary directory**

In CCP4 series 8, the default location of temporary directory is inside user's home folder. Therefore, if the path to user's home folder contains any characters other than: lower- and uppercase Latin letters, numbers, minus sign, dot, underscore, and back slash, CCP4 would not function correctly and an attempt at starting any of the CCP4 programs will result in an error message. In this case, open Command Prompt and type the following command:

setx CCP4\_SCR drive\_letter:\new\location

where \new\location contains only the characters mentioned above. This command should be run by the user, not by Administrator. An example:

setx CCP4\_SCR C:\ccp4temp

Please report any problems to CCP4 help desk ccp4@ccp4.ac.uk.

**macOS**

**First-time installation using CCP4 Setup Manager**

1. Download CCP4 Setup Manager macosx-x86\_64\_ccp4-8.0-setup.dmg.
2. Open the downloaded file by double-clicking on it in Finder window and follow instructions in the window that opens. Note that you have to perform 2 attempts to start CCP4 Setup Manager by Right-Clicking on the icon and cancelling first time.
3. When CCP4 Setup Manager starts, follow instructions in pages. (\*) (\*\*) (\*\*\*) (\*\*\*\*)

**Re-installation or installation of additional packages using CCP4 Setup Manager**

1. Start CCP4 Setup Manager as in pp. 1 and 2 in "First-time installation using CCP4 Setup Manager" above.
2. On 2nd page, choose "Standard installation" for complete re-installation of CCP4-8.0, or "Installation of missing optional packages" for installation of additional components.
3. Follow instructions in Setup Manager's pages. (\*\*) (\*\*\*) (\*\*\*\*) (\*\*\*\*\*)

(\*) Setup Manager will launch SHELX webpage after installation. Please make sure to register for SHELX licence if you do not have one already.  
  
(\*\*) Check "modify command line environment" in 2nd page if you plan to run any CCP4 tools from the command line  
  
(\*\*\*) Check for messages "ccp4um test passed" and "installation completed" in the console window on the last page. If, instead, there are error messages at the bottom, please send the installation log-file (the path is shown in the console) to CCP4 help desk.  
  
(\*\*\*\*) If download of requested packages is interrupted, press Back and, on the previous page, press Next to restart the download. The already downloaded chunks will be verified, and then the download will continue from the point where it stopped. Cancel and restart of the Package Manager will have the same effect except that you will have to click through all pages again. (The downloaded chunks are stored in the specified temporary directory).

**Installation from tarballs**

1. Download tarball containing components you need, e.g. ccp4-8.0.XXX-shelx-arpwarp-macosx64.tar.gz
2. Type the following commands in the Terminal window (assuming installation in /Applications and current version 8.0.000):

cd /Applications

mv ~/Downloads/ccp4-8.0.006-shelx-arpwarp-macosx64.tar.gz /tmp/

xattr -c /tmp/ccp4-8.0.006-shelx-arpwarp-macosx64.tar.gz

sudo tar -xvzf /tmp/ccp4-8.0.006-shelx-arpwarp-macosx64.tar.gz

sudo ccp4-8.0/BINARY.setup

The last message printed by BINARY.setup in ccp4-8.0.006 shows wrong paths. This will be fixed in ccp4-8.0.007.

**CCP4 launchers**

On macOS, CCP4 launchers (icons) are found in the installation directory (usually /Applications/ccp4-8.0), named as ViewHKL.app, ccp4.app, ccp4cloud-config.app, ccp4cloud-desktop.app, ccp4cloud-remote.app, ccp4i2.app, coot.app, and qtpisa.app. They can be copied to Desktop or Dock, if found more convenient.

**Linux**

See also the [known issues](https://www.ccp4.ac.uk/download/doc/known_issues_linux.html).

**First-time installation using CCP4 Setup Manager**

1. Download CCP4 Setup Manager linux-x86\_64\_ccp4-8.0-setup.tar.gz.
2. Type the following commands in the Terminal window. (\*)

cd ~/Downloads

tar -xvzf linux-x86\_64\_ccp4-8.0-setup.tar.gz

./ccp4-8.0-setup

1. Follow instructions in Setup Manager's pages. (\*\*) (\*\*\*) (\*\*\*\*) (\*\*\*\*\*)

**Re-installation or installation of additional packages using CCP4 Setup Manager**

1. Start CCP4 Setup Manager as in pp. 1 and 2 in "First-time installation using CCP4 Setup Manager" above.
2. On 2nd page, choose "Standard installation" for complete re-installation of CCP4-8.0, or "Installation of missing optional packages" for installation of additional components.
3. Follow instructions in Setup Manager's pages. (\*\*) (\*\*\*) (\*\*\*\*) (\*\*\*\*\*)

(\*) The admin password will be requested on the last page of Setup Manager if it is needed for chosen installation location. Alternatively, you can try running ccp4sm under sudo, but note that Qt does not work under sudo on some Linux flavours.  
  
(\*\*) Setup Manager will launch SHELX webpage after installation. Please make sure to register for SHELX licence if you do not have one already.  
  
(\*\*\*) Check "modify command line environment" in 2nd page if you plan to run any CCP4 tools from the command line  
  
(\*\*\*\*) Check for messages "ccp4um test passed" and "installation completed" in the console window on the last page. If, instead, there are error messages at the bottom, please send the installation log-file (the path is shown in the console) to CCP4 help desk.  
  
(\*\*\*\*\*) If download of requested packages is interrupted, press Back and, on the previous page, press Next to restart the download. The already downloaded chunks will be verified, and then the download will continue from the point where it stopped. Cancel and restart of the Package Manager will have the same effect except that you will have to click through all pages again. (The downloaded chunks are stored in the specified temporary directory).

**Installation from tarballs**

1. Download tarball containing components you need, e.g. ccp4-8.0.XXX-shelx-arpwarp-linux64.tar.gz
2. Type the following commands in Terminal (assuming installation in /opt/xtal and current version 8.0.000):

sudo mkdir -p /opt/xtal

cd /opt/xtal

sudo tar -xvzf ~/Downloads/ccp4-8.0.000-shelx-arpwarp-linux64.tar.gz

sudo ccp4-8.0/BINARY.setup

**CCP4 launchers**

|  |  |
| --- | --- |
| ccp4i | /opt/xtal/ccp4-8.0/bin/ccp4i |
| ccp4i2 | /opt/xtal/ccp4-8.0/bin/ccp4i2 |
| ccp4mg | /opt/xtal/ccp4-8.0/bin/ccp4mg |
| ccp4cloud-config | /opt/xtal/ccp4-8.0/share/jscofe/w\_launcher.sh config |
| ccp4cloud-desktop | /opt/xtal/ccp4-8.0/share/jscofe/w\_launcher.sh desktop |
| ccp4cloud-remote | /opt/xtal/ccp4-8.0/share/jscofe/w\_launcher.sh remote |

On Linux, CCP4 launchers (including ccp4i2, ccp4cloud-config, ccp4cloud-desktop and ccp4cloud-remote) should be found in Activities (Ubuntu), or in Applications/Other (GNOME). This may not happen in some Linux flavours. Should this be the case, please make your own launchers. The relevant command-prompt commands are (assuming installation in /opt/xtal):