

3D Restoration (Kine3D[®]-3)

SKUA[®] 2009.4 and GOCAD[®] 2009.4

Rock & Fluid Canvas[™] 2009 | Epos[®] 4.0 Rollup 3



Configuration Guide

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Installing and Configuring Code_Aster for 3D Restoration (Kine3D-3)

If you have a license for the 3D Restoration (Kine3D®-3) module, you can run a restoration simulation by using the 3D Unfolding Workflow in Paradigm™ SKUA® or Paradigm™ GOCAD®. However, you need to first download and install an external application, Code_Aster version 10.1. Code_Aster is a software package for finite element analysis and numeric simulation in structural mechanics. It is free software that is available under the terms of the GNU General Public Licence. Code_Aster must be installed and running on a local or networked computer, with a Windows 32-bit, Windows 64-bit, or Linux 64-bit operating system, so that you can carry out the finite-element processing required for the restoration.

You also need to configure the Code Aster Proxy provided with Kine3D-3, so that the workflow can communicate with Code_Aster. The SKUA and GOCAD installation packages include Kine3D-3 and the Code Aster Proxy.

The following topics explain how to download and install Code_Aster and configure the Code Aster Proxy to work with the 3D Unfolding Workflow.

For more information, see:

- "Downloading and Installing Code_Aster," page 1
- "Configuring the Code Aster Proxy," page 2
- "Testing the Connection with Code Aster Proxy," page 4

Downloading and Installing Code_Aster

To install Code_Aster, you need to first download the installation file, and then decompress the file. The installation process is slightly different for the Linux 64-bit and the Windows 32-bit or 64-bit installation.

Note The Code_Aster installation package includes a required version of Python, TCL, and a Fortran compiler. These applications will be installed inside the Code_Aster installation folder.

Downloading Code_Aster

For your convenience, we provide installation packages for Code_Aster¹. You can download the appropriate installation file for your operating system from the following site: http://gocad-download.pdgm.com/code_aster/.

To install Code_Aster (Linux 64 bit)

- 1 Create a directory, such as **/opt/CodeAster**, on the computer where you want to install the program and copy the installation file to this directory.

Note Code Aster does not support path names that include blanks or special characters.

- 2 From the installation directory, type a command, such as the following example, to extract the files:

```
tar xvzf aster-x86_64_v1.1.tgz -C /opt/CodeAster/
```

- 3 Navigate to *InstallationPath/aster-x86_64/postinstall*, and run the script: **postinstall.py**.

Afterward, you need to configure the Code Aster Proxy.

1. The source code for Code_Aster is also available from www.code-aster.org.

To install Code_Aster (Windows 32 bit or 64 bit)

- 1 Create a folder where you want to install the program (for example, C:\CodeAster) and copy the installation file to this folder.
Note Code Aster does not support path names that include blanks or special characters.
- 2 Decompress the installation file in the folder that you created by either:
 - Opening the file with Compressed (Zipped) Folders (the integrated utility in Windows Explorer) and copying the contents into the installation folder.
 - Using a utility, such as WinZip, to unzip the file.
- 3 Navigate to *InstallationPath\aster-win32\config* or *InstallationPath\aster-win64\config*, and then double-click the executable file: **config.exe**.
- 4 At the first prompt, do one of the following:
 - If you want to create a folder for troubleshooting purposes to store the output files, press T, ENTER, and then type a path name (for example: C:\CodeAster\RESULTS) and press ENTER.
 - If you want to store Code_Aster output files in a predefined, temporary folder (C:\Temp), continue to [step 5](#).
- 5 Confirm the path to the folder where you want to store the output files by pressing Y, ENTER.

Afterward, you need to configure the Code Aster Proxy.

Configuring the Code Aster Proxy

After you download and install Code_Aster, edit the proxy links by using the proxy configuration tool provided in the SKUA or GOCAD installation.

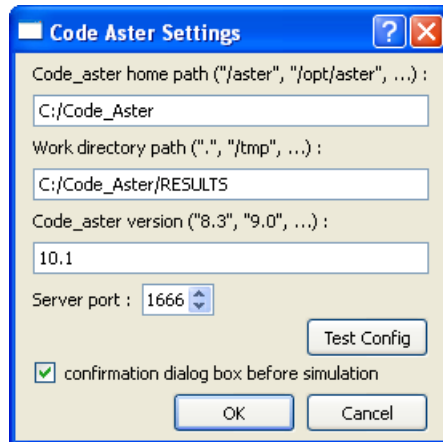
To configure the Code Aster Proxy

- 1 In the SKUA or GOCAD installation, navigate to the following path, and start the executable file, as appropriate for your operating environment:
 - **Linux 64-bit.** *InstallationPath\GOCAD-SKUA-2009.4\Kine3D3\linux-amd64-re5-gcc\CodeAsterProxy*
 - **Windows 32-bit.** *InstallationPath\GOCAD-SKUA-2009.4\Kine3D3\bin\win32-i86-vs2005.shared\CodeAsterProxy.exe*
 - **Windows 64-bit.** *InstallationPath\GOCAD-SKUA-2009.4\Kine3D3\bin\win64-x64-vs2005.shared\CodeAsterProxy.exe*

The proxy window opens.



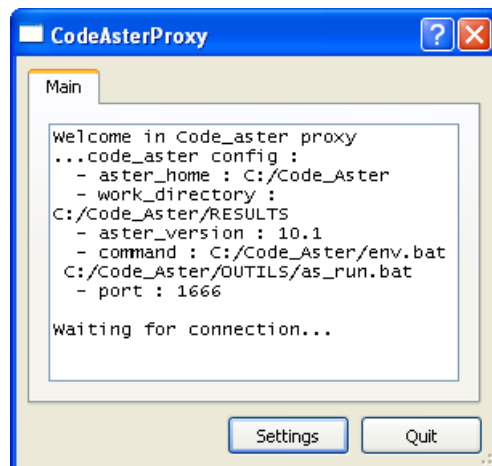
2. Click **Settings** to open the proxy settings.



3. In the **Code_aster home path** box, type the path to the Code_Aster installation (for example, C:/Code_Aster). If you installed Code_Aster on a remote computer, provide the IP address of the remote computer.
4. In the **Work directory path** box, type the path to the folder where you want to create temporary Code_Aster files. For example, C:/Code_Aster/RESULTS.

The temporary Code_Aster files are stored in this folder and can be deleted at the end of the session. Alternatively, you can specify temporary system folder (for example, C:/Temp) so that these files are automatically deleted.
5. In the **Code_aster version** box, type the version of Code_Aster. For example, 10.1.
6. If the Code_Aster installation is on a remote computer, select the **Confirmation dialog before simulation** check box.

This ensures the remote computer is available before the restoration process starts.
7. When you finish specifying the configuration settings, click **OK**.



Testing the Connection with Code Aster Proxy

To ensure Code Aster Proxy is available and running, you can test to see if there is a link between the 3D Unfolding Workflow and the proxy. You can test the link at any time while you are working in the 3D Unfolding Workflow (Figure 1). For more information about testing the link in the 3D Unfolding Workflow, see the *User Guide, Part VII: Geologic Interpretation*.

Figure 1 Test Code Aster link

