# OpenEarth developer in five easy steps

## Contents

> ⚠ **Acknowledgements**
>
> - This TortoiseSVN Installation Protocol is developed by the Data and Knowledge Management section of the Building with Nature programme as a **Deliverable of Workpackage DM 1.1**

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### Request your username and password first

To join the OpenEarth community request a free username and password by signing up at http://oss.deltares.nl (link in upper right corner). You only need a valid email address..

### Follow this five step guideline to making your first contribution



1. Install TortoiseSVN to your computer
    - Download open source Subversion (SVN) client: TortoiseSVN (download win 32-bit version)
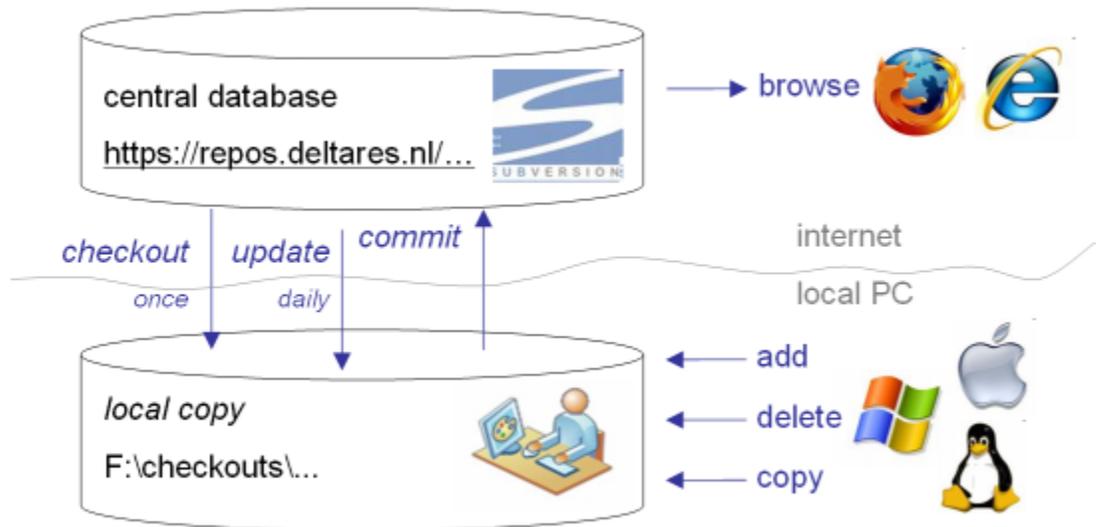    - Install TortoiseSVN to your PC (you must reboot before proceeding).
2. Create local folder on your PC for (all) your repository **checkouts**
    - Create a source code checkout directory on your PC (OpenEarthTools source code requires app. 300 MB of disk space). For instance :
        - F:\checkouts\OpenEarthTools\
    - In any file explorer (Total Commander recommended) right-click (hold for 1 second) and select *SVNCheckout*
    - Enter the url of the (OpenEarth) repository you want to use. You can find the url you want by **browsing** the repository with a regular web-browser, and copying the url from the address bar. e.g.
        - https://svn.oss.deltares.nl/repos/openearthtools/trunk/
            - *For checkout-depth choose 'fully recursive' for OpenEarthTools (not for OpenEarthRawData unless you have tens of Gb free).*
            - *By default only XBeach is added as external, so you can leave this box unticked.*
            - *Choose HEAD revision (this is the main OpenEarthTools trunk that is continuously being improved, so please stay updated.)*
3. Enter your subversion username and password
    - Deltares users can use their Deltares login (ask the OpenEarth or McTools developers team to be added to the user list, see above).
    - External users can mail the OpenEarth developers team with a request for external username and password, see #Request your username and password first

> ✓ If you use total commander, enable "Show overlay icons" in options to see which files were changed.

✓

✅ If you get a question asking for the acceptance of SSL certificates select 'accept permanently'

✅ In some companies/institutes your PC may be behind a proxy server. In this case tick 'Enable Proxy Server' under *Settings /Network* in SubVersion and add the correct proxy Server address (ask your network administrator).

4. Perform an SVN **update** regularly to benefit from updates by co-developers.
    - Right-mouse click on the root directory of your check-out, and choose 'SVN Update' (Figure 1).
    - There is a separate tutorial for dealing with Subversion
5. **Commit** your updates to the repository regularly.
    - Right-mouse click on the root directory of your check-out, and choose 'SVN commit ...' (Figure 1).
    - Do not commit all your updates at once. Commit only one coherent subset at a time, and provide a concise one-line description, to make clear to co-developers what you did. You can see where commits are required where the file/dir icons display a red !-mark (as McTools directory in Figure 1), rather then a green v-mark (as OpenEarthData directory in Figure 1). Note: these handy icons only show up after enabling "Show overlay icons", see above.
    - Do not commit functions that are partly finished, only commit working stuff, because OpenEarthTools should always consists of working stuff.
    - Right-mouse click on the root directory of your check-out, and choose 'TortoiseSVN >' (Figure 1) and then choose from the sub-menu.

    **Figure 1:** After installing TortoiseSVN this menu pops up when clicking your right-mouse button.

- For the Matlab toolbox run openearthtools/matlab/oetsettings.m every time you start Matlab. This will add relevant paths to your matlab path (excl. all hidden directories, and incl. a java path).
- For the Python toolbox run **python setup.py develop** in the OpenEarthTools.

**Other things you must know**

- OpenEarth guidelines:
    - matlab coding style

⊘ Adding/removing/deleting complete files or directories needs to be done via SVN and NOT via your file browser as TotalCommander.

✅ For Deltares users: as a developer do not use the read-only work-copy on p:\mctools to make changes. Only use your own local checkout, and fix all tiny bugs when you encounter them.