

Installation Manual

Installation instructions and System Requirements

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System Requirements

- 64-bit Windows operating system.
- At least 500 MB of available disk space.
- At least 1 GB memory. More memory is needed for larger problems and most users have 8+ Gb.
- Microsoft .NET v 4.8 or higher.

Installing Anaqsim

Anaqsim can be downloaded from the www.anaqsim.com website. The downloaded file is a Windows Installer package (.msi) file. To start the installer, run or double-click on the downloaded file. The installer guides you through a typical installation process. The installer also checks to see if the right version of the Microsoft .net runtime libraries are installed on your computer (these are used by .net programs like Anaqsim). If they are not there, they will be downloaded (free) from a Microsoft web site and installed before Anaqsim is installed.

Once installed, the program will be included in the Programs part of your Start Menu. Anaqsim is typically installed in the following directory on your hard drive:
Program Files/Yellow Sub Hydro/Anaqsim.

Anaqsim control files (with extension .anaq) are not automatically associated with the Anaqsim.exe executable. In order to assign an association which enables Anaqsim to open automatically when double clicking on a .anaq file, the following process needs to be undertaken:

1. Right-click on an existing .anaq file (for example one of the tutorial files, found under the 'Documentation' folder)
2. Select 'Open with', and then 'Choose another App'
3. Scroll down to 'Choose an App on your PC'
4. Navigate to where you installed Anaqsim (typically Program Files/Yellow Sub Hydro/Anaqsim) and select the anaqsim.exe file
5. Select 'Always' to ensure that the file extension association is saved, and applied to all .anaq files.

When you first start Anaqsim it is unlicensed; it will run but will have constraints when solving the system of equations, and a watermark when plotting outputs. Activating a license will remove the watermark and additionally lift the model solve constraints. If you have purchased a license, see [Licensing Anaqsim](#) for instructions on how to activate your license.

Licensing Anaqsim

Anaqsim by default installs in 'Demo' mode which has limited capabilities and is not for commercial use.

The implementation of licenses has been changed from June 2024. Anaqsim version 2024-1-0 or later will be required to check a license key activation status of a license purchased after June 2024.

You may purchase monthly or annual recurring licenses for Anaqsim. Either license provides you with access to the full capabilities of Anaqsim. Licenses are valid for 1 month, or 1 year from the date of purchase, or date of automatic renewal of the subscription attached to the license. A subscription may be cancelled at any time and the associated license will remain valid until the end of the period that has been paid for (i.e. the full month or year from date of purchase / date of last automatic renewal payment).

Activating a License

The following process is required for activating a licence:

1. Make sure your computer is connected to the internet (required).
2. Select 'License'/'Activate License on this Computer'.
3. When prompted, enter your activation key code (sent via email to the purchaser at the time of the purchase) and press OK.
4. Anaqsim will activate a license on your computer.

Anaqsim requires to write a license file to your 'C:\ProgramData\AnAqSim' folder. Write access to this folder can sometimes be protected by administrator rights. If your license fails to activate, then please shut Anaqsim down, and reopen by right clicking on Anaqsim, and selecting 'Run as Administrator'. You should now be able to activate your Anaqsim license. This process should not need to be repeated until your license validity is extended via a recurring subscription.

Automatic renewal of licenses

When a subscription is renewed through a recurring payment, Anaqsim will initially identify that your license has expired (as the original validity of the license has elapsed). Anaqsim will then automatically check if you have an active subscription in place. If you are connected to the internet this process should be seamless and the license on your computer will be updated with the revised expiry date. There should be no need for Anaqsim to re-check your license during the

subsequent month or year of your subscription and you should be able to use Anaqsim without connection to the internet.

If you are not connected to the internet, this check will fail and Anaqsim will revert to it's Demo license capabilities until such a time as you are able to connect to the internet.

If your access permissions do not allow you to write to your 'C:\ProgramData\AnAqSim' folder, then Anaqsim will attempt to verify, (via an API request, requiring internet connectivity), the continued validity of your original license each time you solve or plot a solution. To reduce the additional time this adds to each solution / plot, and allow you to use Anaqsim without an internet connection, similar to the explanation provided under 'Activating a License', run Anaqsim as an Administrator, and the file saved in 'C:\ProgramData\AnAqSim' should now be able to be updated with your extended expiry date.

Deactivating a License

An Anaqsim license can be de-activated and then re-activated for example if you upgrade computers and need to move Anaqsim to the new computer. The following process should be followed:

1. Make sure your computer is connected to the internet (required).
2. Select 'License'/'De-activate License on this Computer'.
3. When prompted, enter your activation key code (sent via email to the purchaser at the time of the purchase) and press OK.
4. Anaqsim will de-activate the license on your computer.
5. Follow the Activating a License instructions on the new computer.

De-activating a license is only possible with licenses purchased after June 2024. The activation key entered must match the activation key that was used to activate a license on that computer.

Plotting outputs from a model that was run on a licensed version of Anaqsim

From Anaqsim version 2024-1-0 it is now possible to plot and analyse results from a model that was solved on a licensed version of Anaqsim, on an un-licensed, demo version of Anaqsim. This is particularly helpful if you maintained a monthly subscription for the duration of a project, but need to re-visit some results several months later but do not wish to re-subscribe.

To enable your model results to be viewed and analysed on an unlicensed version of Anaqsim you must remember to save your solution after the solve process has completed, whilst still running a licensed version of Anaqsim.

This can be done by:

1. Building and solving your solution on a licensed version of Anaqsim
2. Saving the Anaqsim input file (file with a .anaq file extension)
3. Saving the solution (Select 'File'/'Save Solution').
4. On your un-licensed version of Anaqsim, load the Anaqsim input file (Select 'File'/'Save')
5. On your un-licensed version of Anaqsim, load the solution file (Select 'File'/'Load Saved Solution')
6. Proceed to plot and analyse the results, but do not 're-solve' the model as this will cause it to check your current license status.

Licenses purchased prior to December 2023

For licenses purchased prior to December 2023 – Each activation key may contain one or more activations. Each activation is valid on one computer for 1 year from the time of activation, and there is no time limit for initialising activations. The number of activations initially purchased, the number of activations used so far and the number of activations still available will be printed to the screen. You can check that the license is functioning correctly by selecting 'License'/'License Status this Computer'. The license expiration date, and number of remaining activations will be printed to the run log.

Licenses purchased prior to June 2024

For licenses purchased after December 2023, but prior to June 2024 – Each activation key contains a single activation. If you have purchased multiple licenses, you will have receive multiple activation keys. Each key is valid on one computer for 1 year from the date of purchase. The type of license and expiry date will be printed to the screen. These licenses do not automatically recur, and a new license will need to be purchased when it expires. You can check that the license is functioning correctly by selecting 'License'/'License Status this Computer'. The license expiration date will be printed to the run log.