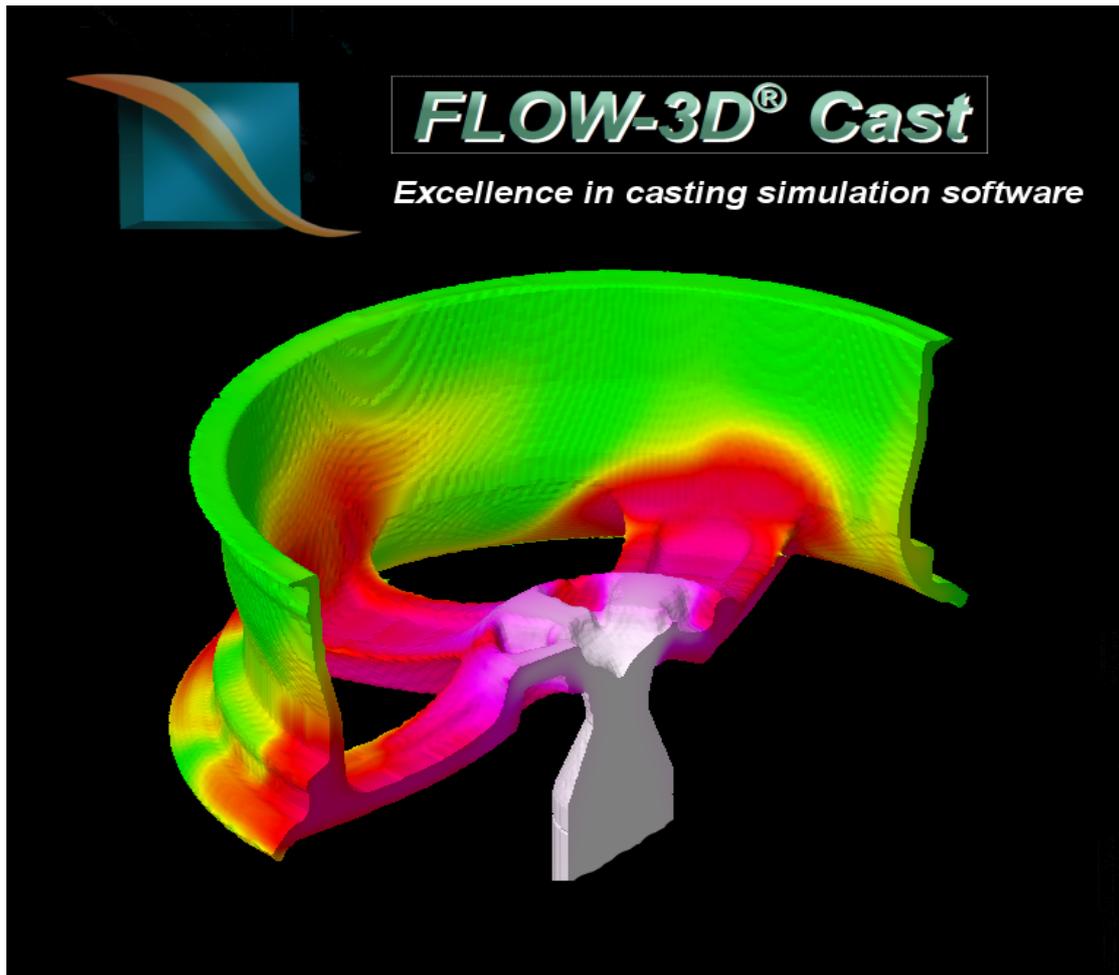


Installation Instructions



Casting Simulation Software

Version 3.2 for Windows XP and Windows Vista

Version 2009-03-24

Installation and Licensing

Upgrading Existing FLOW-3D® Cast Installation

- 1) Copy FLOW-3D® and FLOW-3D® Cast license files into safe location as you will need these later
 1. FLOW-3D® license file is named 'flow3d.lic' and it usually resides in either directory "C:\program files\FLOW-3D cast\flow3d\licenses". If the FLOW-3D® is installed separately the license file is usually located in "C:\flow3d\licenses".
- 2) Uninstall FLOW-3D® Cast
 1. Uninstaller program is found from program group FLOW-3D® Cast from the start menu. Alternatively you can start the uninstaller from Control Panel => Programs / Uninstall program.
 2. Some users may have the FLOW-3D® solver installed separately using the FLOW-3D® installer.
- 3) Follow steps in the New Installation chapter below.

64 bit installations

FLOW-3D® Cast 3.2 comes in two variants: 32bit and 64bit. The users that have 64bit windows operating system are recommended to install the 64bit version of the FLOW-3D® Cast as this will make full use of the larger memory addressing space of 64bit systems. In 32bit system the 32bit addressing scheme prevents FLOW-3D® Cast from making use of system memories larger than 2GB though it is possible to raise this limit to ~3GB by tweaking system parameters.

New Installation

Prerequisites

To successfully install FLOW-3D® Cast you need:

- 1) PC with at least 512MB of RAM and 10GB of free disk space. 2GB of RAM and 80GB of free disk space is recommended. The FLOW-3D® Cast will run with less but running simulations of decent size requires a lot of memory and disk space so there is little sense in trying with anything less than the minimum recommended.
- 2) Windows XP (32bit or 64bit) or Windows Vista (32bit or 64bit)
- 3) FLOW-3D® Cast Installer executable
- 4) A FLOW-3D® solver dongle and a valid license file for the dongle. FLOW-3D® solver dongles are usually green and are plugged into the USB port of the workstation. You can check which dongle corresponds to your FLOW-3D® license file Identifying which dongle corresponds to your license (flow3d.lic) by having a look at the first line of the file. In the first line after text "flexid=" you should find the flexid of the dongle to which the license is attached to.



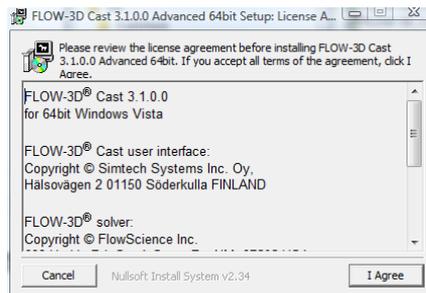
**Illustration 1:
FLOW-3D USB
Dongle**

For example:

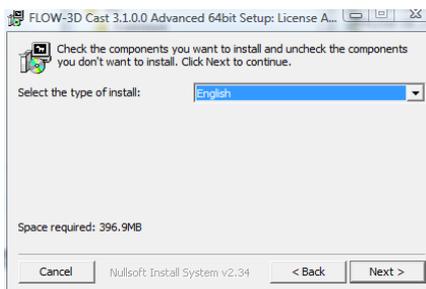
```
SERVER this_host FLEXID=6-a630579f
```

Running Installer

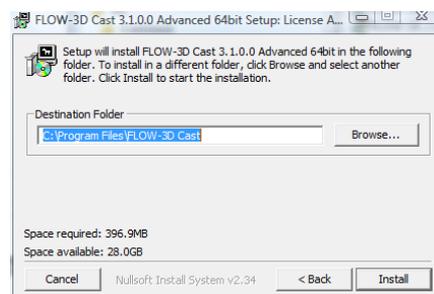
- 1) First make sure that you are running the correct installer. The name of the installer file tells you
 1. The version of FLOW-3D® Cast:
 1. Basic
 2. Extended
 3. Advanced
 4. User interface only. This is used only when FLOW-3D® is already installed separately
- 2) Then run the installer. On Windows Vista you will be prompted to whether you will allow the unidentified software to modify your system. To proceed you must click **Allow**
- 3) License Agreement view will open. You have to select **I Agree** to go forward with the installation.



- 4) You will then be asked for the language for the FLOW-3D® Cast user interface and the system architecture (32bit or 64bit) to be used. Select the language and architecture and click **Next**



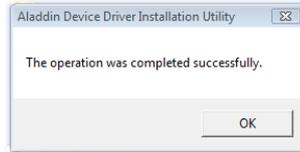
- 5) Next you will be prompted for the location where FLOW-3D® Cast will be installed. If you are not happy with the default location change it with **Browse** button. Then click **Next**.



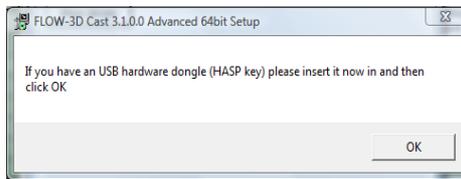
- 6) After a while, unless you chose 'User Interface Only' for the installation type you will next see a pop up progress dialog telling that HASP driver is being installed. Click OK to this dialog.



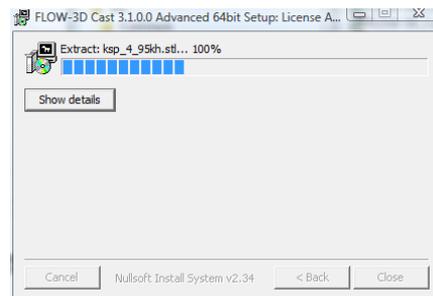
- 7) After a while the HASP driver install progress pop up will disappear and you will be prompted with pop up indicating that HASP driver was installed. Click **OK** to this dialog



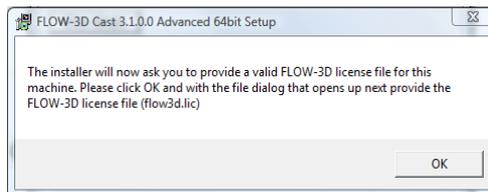
- 8) Then you will be prompted to insert the dongle. You should insert your HASP dongle now. Click **OK** to continue.



- 9) Installer will now install some more files and this takes some time.



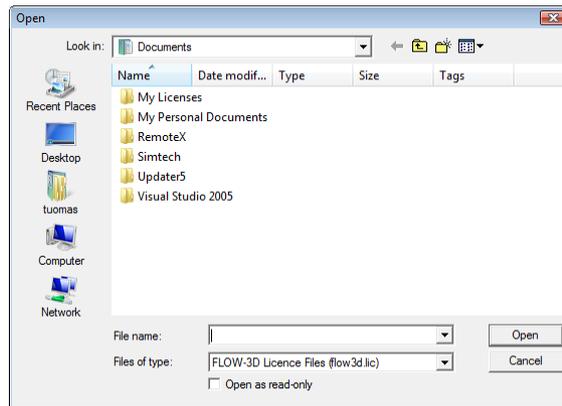
- 10) After some time a pop up will appear telling that you should provide the FLOW-3D® license file (flow3d.lic). Click **OK** to this pop up.



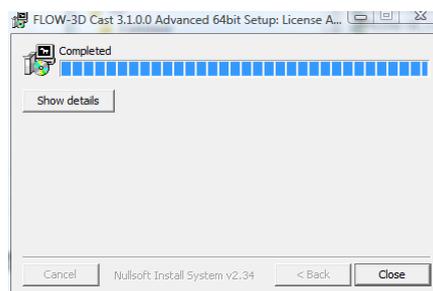
- 11) A file dialog will open. Select your FLOW-3D® license file with this dialog and select **Open**. The installer will now copy the license file to location FLOW3D\license in the FLOW-3D® Cast installation directory and start the FLOW-3D® license manager service for that license file.

If you do not have your license file available yet you can select cancel and update the license file later. You can do this any time after the installation by starting the 'Update FLOW-3D License File' tool that is available in the Start menu under 'FLOW-3D Cast'.

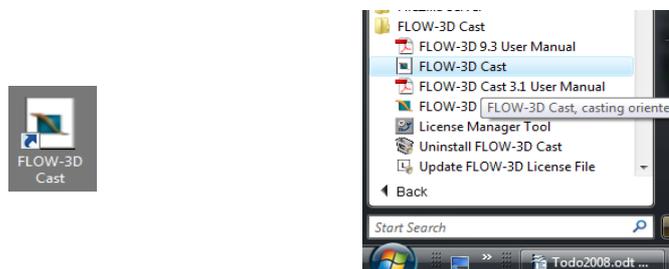
If you – for some reason – want to update the license file manually – you need to copy the new license file into its correct place (which is in FLOW3D\license directory under the FLOW-3D Cast installation directory) and the restart the FLOW-3D® licensing service. The simplest way to do this is to this is by rebooting the workstation.



12) Finally the installation will complete and you will be prompted to close the installer. Click **Close**.



Now - a shortcut to FLOW-3D® Cast has appeared on your desktop (and also in Start menu).



Now, double click on the FLOW-3D® Cast shortcut on the desktop. The FLOW-3D® Cast user interface will now start.

Optimizing/disabling FLOW-3D® multiprocessing

By default the FLOW-3D® Cast 3.1 tries to use the solver using multiprocessing license with as many calculation threads as there are CPU cores in the system. If only single thread license is available for the solver then the system uses just one CPU core.

On some cases it may be useful to alter this behavior. This can be done by creating/modifying environment variable OMP_NUM_THREADS. This variable can be set to override the default number of solver threads that the FLOW-3D® Cast uses. Setting this variable to 1 will disable multiprocessing in the solver even if multiprocessing license is available. Depending on hardware, setting this variable to a numeric value lower than the number of CPU cores reported by the operating system may improve solver performance in some cases.

In Windows Vista you set the variable by opening the Control Panels => System => Advanced system settings and there from the Advanced tab click Environment Variables. Below System variables box select New, type variable name as OMP_NUM_THREADS and value as the number of CPUs in your system