

## QUICKSTART GUIDE: **IMARIS** **4D IMAGE ANALYSIS** **SOFTWARE**

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## Booking Imaris

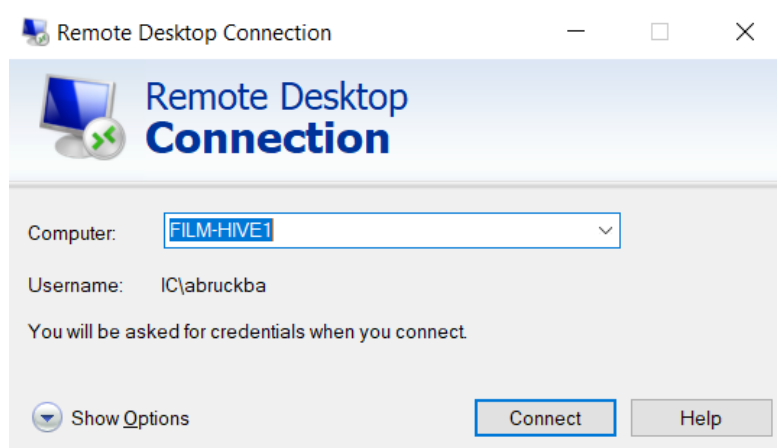
The use of Imaris needs to be booked on the PPMS booking system under FILM facility <https://ppms.eu/imperial/login/?pf=2>. Please register if you are not already on the booking system. This requires a financial account, see below for usage charges. Use the '**Imaris Software (HIVE1)**' calendar on PPMS to book the software. We currently have only one license which is shared between the FILM facility and the Bioengineering department, so booking is essential to avoid conflicts as **only one user can use the system at a time**. New users need to **contact FILM staff** e.g., via [film-service@imperial.ac.uk](mailto:film-service@imperial.ac.uk) to have access to the booking calendar and the computer and to be added to the film-users mailing list for regular updates.

## Access to the HIVE1 server

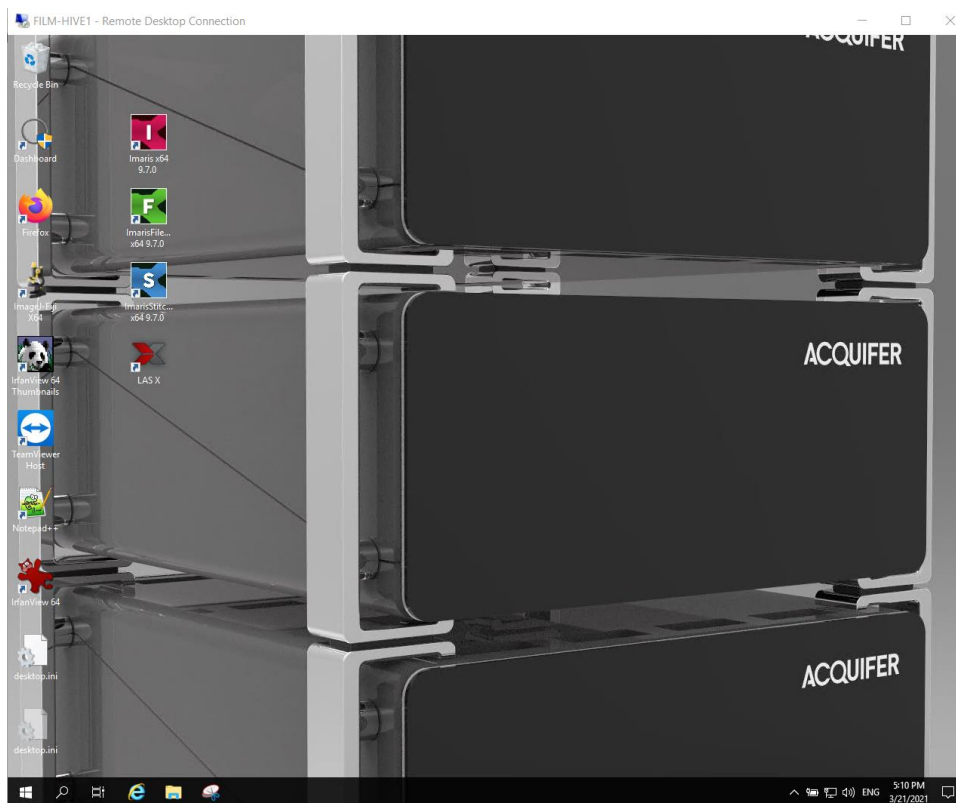
Access to the software is available using a **Windows Remote Desktop** session to access the server hosting the software. Clients are available for Windows, Mac and Linux operating systems. You would need to connect from a computer with suitable screen resolution, e.g. 1920 x 1080.

1. From the 'Start' menu, select 'Remote Desktop Connection' (if you don't see this search for it or follow the instructions here: <https://www.imperial.ac.uk/admin-services/ict/self-service/connect-communicate/remote-access/remotely-access-my-college-computer/> **You don't need to wake up the computer**, it is a server which is always on.

2. Enter the name **FILM-HIVE1** in the 'Computer' field of the 'Remote Desktop Connection' window and click the connect button. For more settings see further below.



3. You will be asked to 'Enter Your Credentials'. **Enter your normal College logon username and password, then click 'OK'.**  
You should now see the remote session on your local display.



The HIVE1 server is running the **Microsoft server 2019 operating system** which is similar to Windows 10. It is a powerful computer with a NVIDIA RTX 5000 graphics card (16GB), 512 GB RAM and 20 logical processors.

## Access to your data

1. Once logged in, FILM users can connect to the FILM scratch2 server to access microscopy data. Open the windows File Explorer, click on This PC on the left, open the ribbon at the top (little arrow on the top right next to the question mark), Map network drive **\\film-nas2.med.ic.ac.uk\scratch2** , reconnect at login and create a shortcut on your Desktop, you should have to do this only once. Other users can connect to a server of their choice.
2. The HIVE1 server has its own 70 TB RAID storage (Drive E:) which is used for our LS1 Lightsheet microscope, you can also map this drive from College computers as a network drive **\\FILM-HIVE1\HIVE1-data**
3. Generate a folder with your name on the HIVE1-data folder on drive E:\ and **copy your data** to your folder.

**IMPORTANT: File storage on the HIVE is not permanent, files will be regularly deleted!!!**  
We send out messages over the mailing list when files will be deleted.

## Charges

**There are currently no charges for the Imaris software, but this will change once we have to pay for the software maintenance.** You can find charges for the FILM facility here: <http://www.imperial.ac.uk/medicine/facility-for-imaging-by-light-microscopy/charges/>

Usage is monitored automatically using the login information of the Imaris software.

**IMPORTANT: You need to close the software and log off when you are finished to give other users the opportunity to use the software**

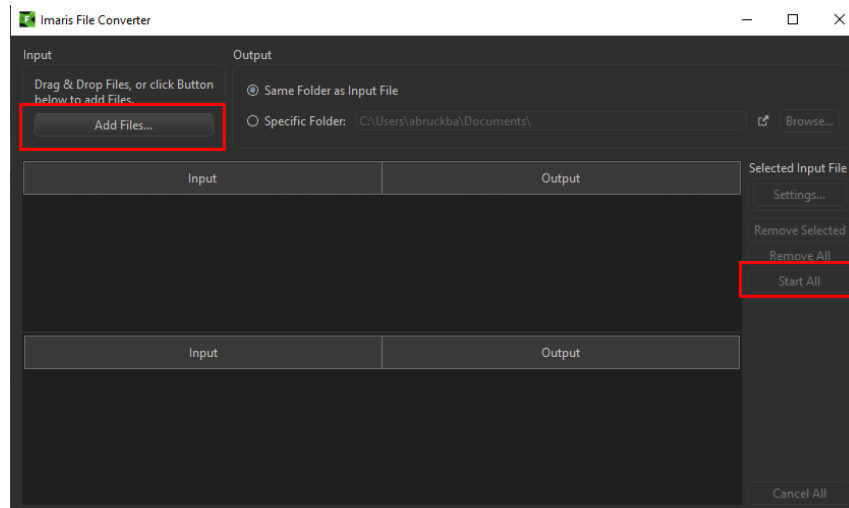
While only one user can use the Imaris software, more than one user can be logged into the HIVE computer, e.g. to copy data.

## First steps in Imaris

Imaris has its own file format which allows fast loading of large data files using a pyramidal representation. The files from the microscopes need to first be converted into the Imaris \*.ims format.

1. Launch **the IMARIS File converter** software using





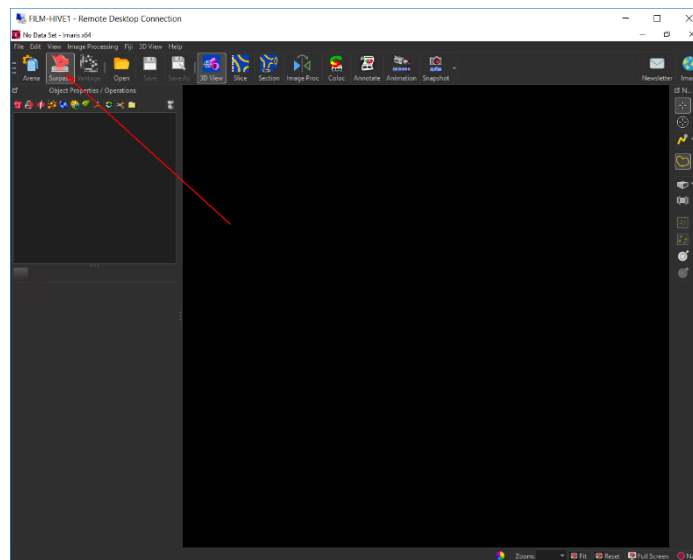
2. You can add several files with “Add files”
3. “Start all” starts the software in batch mode.
4. A green tick at the file indicates that the file is converted, you can close the file converter.

## Starting Imaris

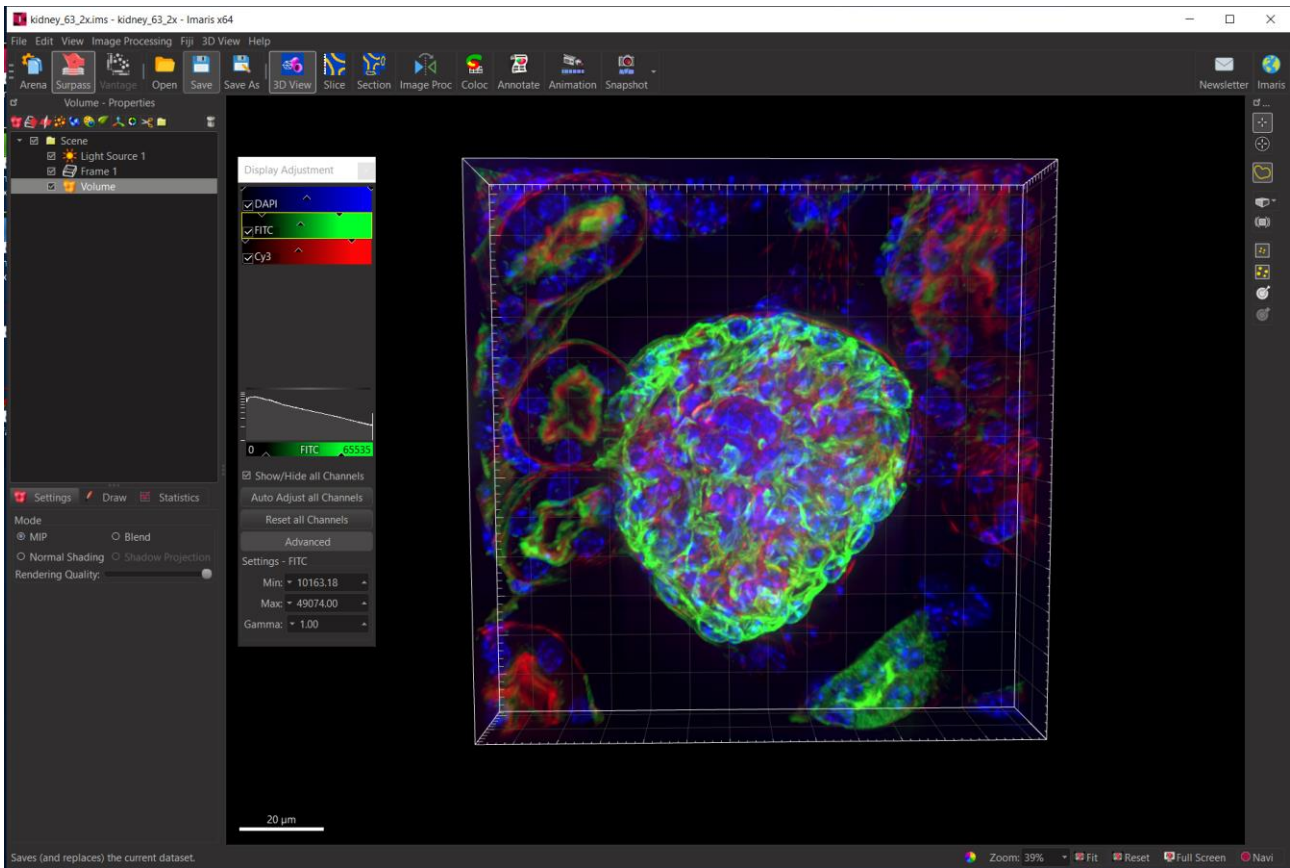
Start Imaris using:



Switch to Surpass mode:



You can open your file with file>open or drag and drop from the file explorer. Imaris opens the file in the 3D view and displays it as a Volume rendering. The Display adjustment is in a separate floating window. If you don't see it, press <ctrl D> key.



Controls:

Left mouse: Rotate image

Right Mouse: Shift image

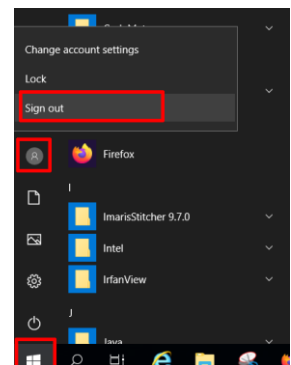
Scroll wheel: zoom

Escape key: Change between pointer selection mode 1 and 2

## Ending your session

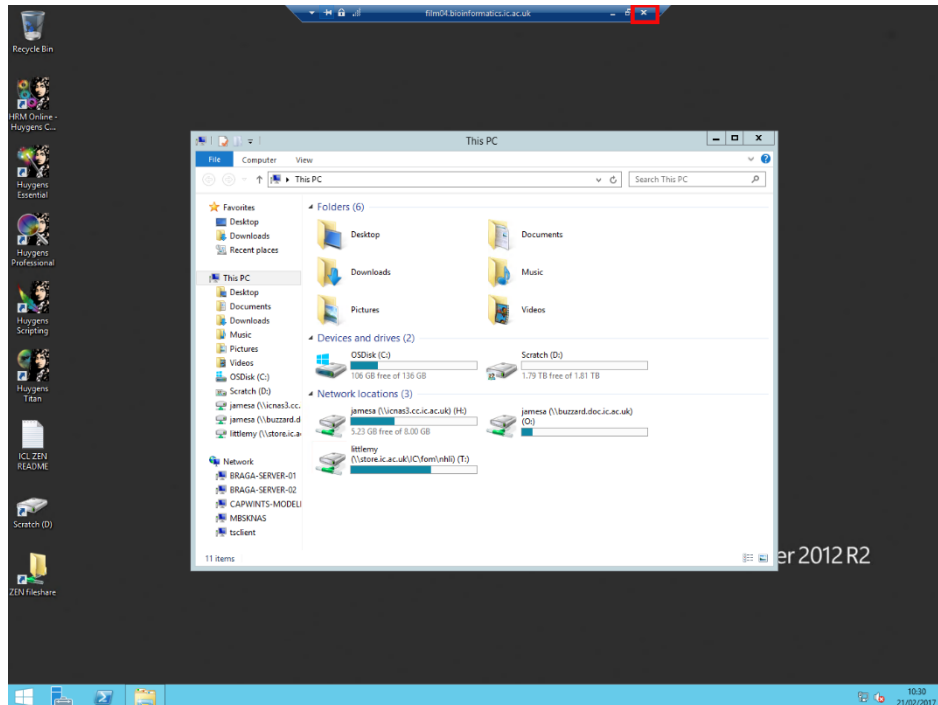
**IMPORTANT:** At the end of your session you need to **sign out**

Click on the Windows icon in the task bar, click on the little user icon on the top click on 'sign out' This ends your session.  
(alternatively click ctrl + alt+ end and select sign out)



You can also disconnect: Click on the cross on the right in bar on top of your session window (marked red in the picture below). Your session will continue to run and you will be able to log on to the same session again later. Don't forget to sign out of your session at a later point.

When the computer you are using to connect to Imaris goes into **power saving mode, this can disconnect your session.**



## Resources

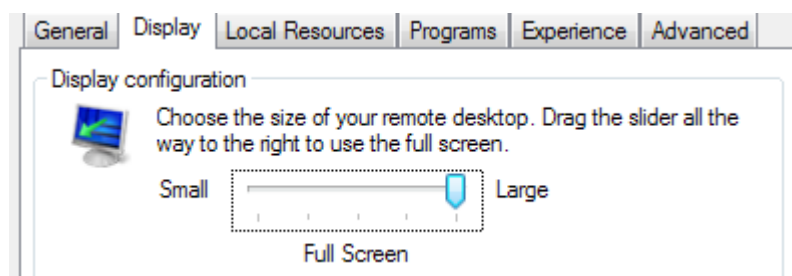
Website: <https://imaris.oxinst.com/>

Tutorials: <https://imaris.oxinst.com/homeschool>

Free Imaris viewer: <https://imaris.oxinst.com/imaris-viewer>

## Remote Desktop settings

Various options are available which may improve the usability of the connection under the 'Options' menu. You can adjust the size of the remote desktop here by selecting the 'Display' tab.



The connection can also be optimised to your connection speed. If you are on an Imperial campus, select the 'LAN' option. Remote connections via VPN connections will produce better results using either the 'High Speed Broadband' or 'Low Speed Broadband' options, depending upon the quality of your connection.

