

# Import of Images to Imaris

A shorter video tutorial you can find at

<https://imaris.oxinst.com/learning/view/article/importing-data-into-imaris>

## 1 General Guidance

It is recommended to try first to import the native file format of the acquisition device. If supported by Imaris this will give you the best experience since you can expect to preserve dimensions, calibration, and channel colours of the native format.

You can find the supporter file formats at 'Imaris main menu -> Help -> Preface -> Getting Started -> Supported File Formats'

Which Import Path to use:

Imaris Arena

If you have only a limited number of datasets to be imported in one go.

Imaris Surpass Fiji Plugins

For files where the Imaris reader fail completely

Imaris File Converter

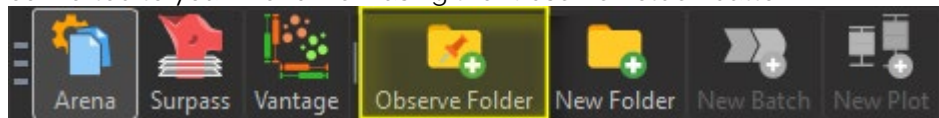
For batch converts of many files.

On machines you have no Imaris license, or you like not to block a license for the conversion.

If Imaris can detect the format but still has problems to import correctly.

## 2 Import using Imaris Arena

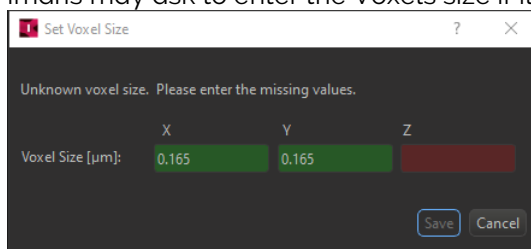
If the location of the dataset cannot be already seen in Arena add the folder with the files to be converted to your Arena view using the 'Observe Folder' button



The Arena file browser of the main Imaris program will show you the thumbnails of the detected datasets.

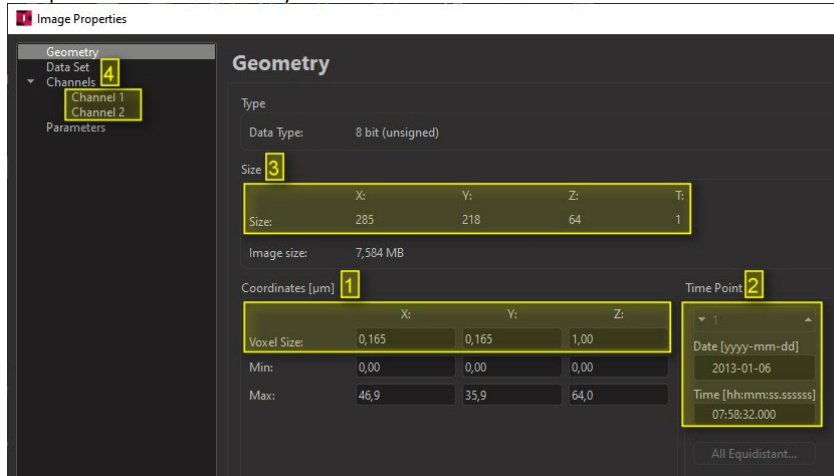
Tip: if you do not see the files or folders immediately press 'CTRL – F5' to refresh the view.

1. With a double click or 'RIGHT-MOUSE -> Convert to Native Imaris File Format' it will be automatically converted and an IMS file will be saved to the same directory. Imaris may ask to enter the Voxels size if it could not extract it.

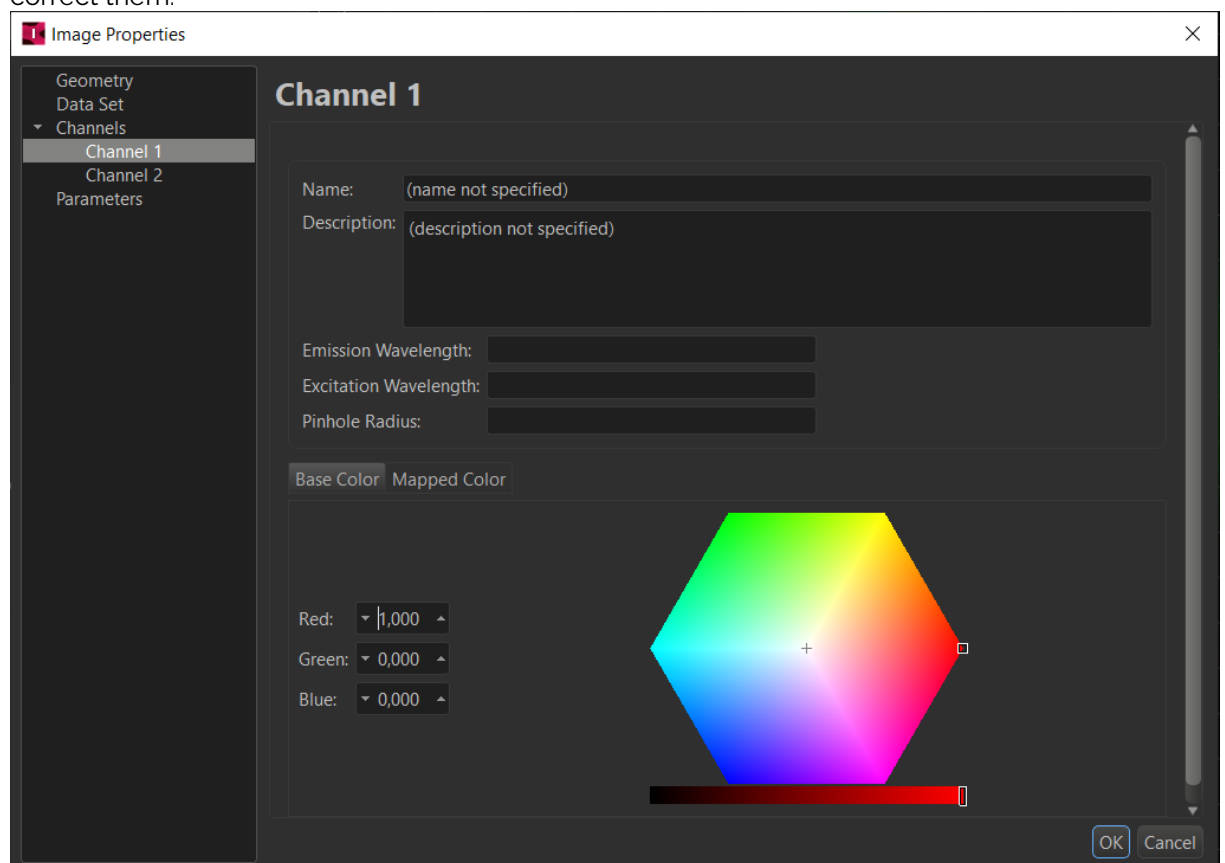


2. Double click on the Thumbnail to open the IMS file in Imaris Surpass and check for correct dimensions and calibration data at 'Surpass main menu -> Edit -> Image

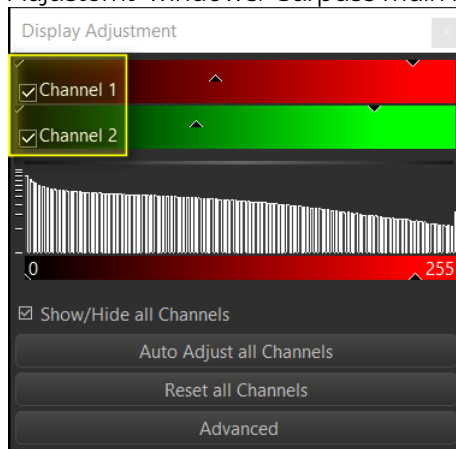
## Properties -> Geometry'



- If the Voxels sizes [1] or time calibration [2] is not correct you can edit them directly in the dialogue.
- If size in X Y Z or T [3] or the number of channels [4] is not correct you can maybe fix this by using the File Series Reader.
- If the channel colours are not correct you may click on the channel tabs [4] and correct them.



- Alternatively, you can come here by clicking in the name of the channel the 'Display Adjustment' windows. 'Surpass main menu -> Edit -> Show Display Adjustment'



By default, files with the same base name and size are stored into the same dataset. If the name contains only one running number, it is interpreted as a Z stack or time series. If the name contains multiple running number leaded by one of the below characters, the characters determine which dimensions are used.

\_C### Channels  
 \_T### Time Points  
 \_Z### Z Slices  
 \_X### X Slices  
 \_Y### Y Slices

### = a running number

If the files are not automatically sorted into the correct dimensions by Arena please read the chapter 'File Series Reader'

## 2.1 File Series Reader

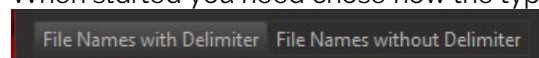
The Imaris File Series Reader is a tool to handle series of numbered files. It allows you to group the files into datasets with the desired number of sections, channels and time points. The names and sizes of the files are used to arrange them.

- Datasets which files are stored in multiple directories are not supported
- It is available for plain Tiff files **only**, not e.g OME TIFF. Tiff files where Imaris finds metadata about the organisation of the dataset cannot be handled.
- It is recommended to store the files of different datasets into separate directories to simplify the task.

The File Series Reader can be started from Arena on a thumbnail 'RIGHT-MOUSE -> Configure File Series'

Please note that you can as well use the tool from Imaris File Converter' with a selected input file 'Settings...'

When started you need choose how the type of the naming of the files



- If the file name has multiple running numbers for different dimensions chose 'File Names with Delimiter' e.g.  
 retina\_ChO\_layer000.tif  
 retina\_ChO\_layer001.tif  
 retina\_ChO\_layer002.tif

retina\_Ch0\_layer003.tif  
retina\_Ch1\_layer004.tif  
retina\_Ch1\_layer005.tif  
retina\_Ch1\_layer006.tif  
retina\_Ch1\_layer007.tif  
retina\_Ch1\_layer008.tif  
retina\_Ch0\_layer009.tif  
retina\_Ch0\_layer010.tif

retina\_ is the base name. Only files with this base name will be converted.  
Ch0 contains the running number for the channels  
layer001 contains the running number for the layers (slices).

- If the files with the identical base name have one running number chose the Tab 'File Names without Delimiter' e.g.:

retina\_001.tif  
retina\_002.tif  
retina\_003.tif  
retina\_004.tif  
retina\_005.tif  
retina\_006.tif  
retina\_007.tif  
retina\_008.tif  
retina\_009.tif  
retina\_010.tif

retina\_ is the base name. Only files with this base name will be converted.  
001 is a single running number for all files of the dataset

Notes:

- It is recommended to store the files of different datasets into sperate directories to simplify the task.
- Datasets which files are stored in multiple directories are not supported

### 2.1.1 File Names with Delimiter

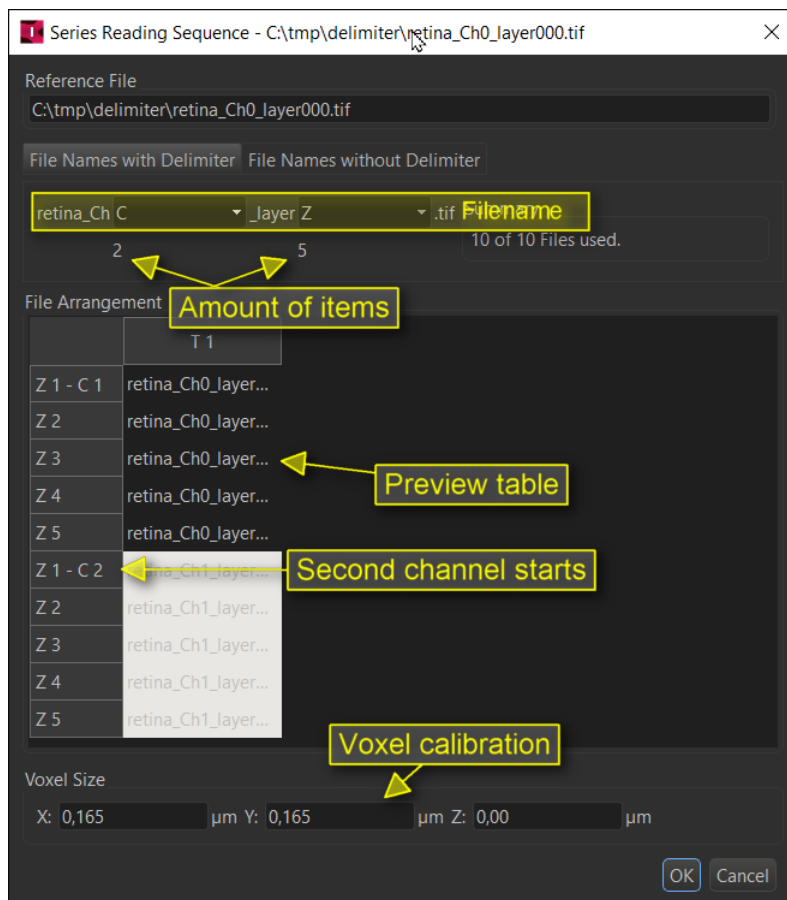
To be used if filenames contain multiple running numbers, e.g. retina\_Ch0\_layer000.tif

The TIFF reader uses some patterns \_C?number \_T?number \_S?number. That \_[letter] codes are used to assign the different dimensions and sort the files automatically into channels, time points, slices etc.

_C?number	-C	_CH	_W	Channel
_T?number				Time
_Z?number	-Z	_S		Slice
_X?number	-Y			Column
_Y?number	-Y			Row

The ? can be any character or absent (\_Cnumber)  
It does not distinguish between upper and lower case.  
The letter codes you can change at 'Preferences – File Conversion'

If the automatic assignment does not work, you can use the 'Series Reading Sequence' tool to further tune it for specific files.



Imaris will show the filename and at the place of the running number a menu to select how the number should be interpreted:

BLANK Ignore

X Slices

Y Slices

Z Slices

C Channels

T Timepoints

F (Split) Split the files into the next dataset if the number changes.

Below the number of items are shown which will be assigned to the chosen dimensions. In the screenshot this are 2 channel and 5 Z layers.

The table 'File Arrangement' shows a preview of the resulting first dataset which will be created.

Here are a few examples:

File Names with Delimiter File Names without Delimiter

retina\_Ch **T** \_layer **Z** .tif Summary  
2 5 10 of 10 Files used.

File Arrangement

	T 1	T 2
Z 1 - C 1	retina_Ch0_layer000.tif	retina_Ch1_layer000.tif
Z 2	retina_Ch0_layer001.tif	retina_Ch1_layer001.tif
Z 3	retina_Ch0_layer002.tif	retina_Ch1_layer002.tif
Z 4	retina_Ch0_layer003.tif	retina_Ch1_layer003.tif
Z 5	retina_Ch0_layer004.tif	retina_Ch1_layer004.tif

First number T, second number Z -> 1 datasets with 1 channel, 2 time points and 5 Z layers will be created.

File Names with Delimiter File Names without Delimiter

retina\_Ch **Z** \_layer **T** .tif Summary  
2 5 10 of 10 Files used.

File Arrangement

	T 1	T 2	T 3	T 4	T 5
Z 1 - C 1	retina_Ch0_layer...	retina_Ch0_layer...	retina_Ch0_layer...	retina_Ch0_layer...	retina_Ch0_layer...
Z 2	retina_Ch1_layer...	retina_Ch1_layer...	retina_Ch1_layer...	retina_Ch1_layer...	retina_Ch1_layer...

First number Z, second number T -> 1 datasets with 1 channel, 2 Z layers and 5 timepoints will be created.

File Names with Delimiter File Names without Delimiter

retina\_Ch **F (Split)** \_layer **Z** .tif Summary  
2 5 10 of 10 Files used.

File Arrangement

	T 1
Z 1 - C 1	retina_Ch0_layer000.tif
Z 2	retina_Ch0_layer001.tif
Z 3	retina_Ch0_layer002.tif
Z 4	retina_Ch0_layer003.tif
Z 5	retina_Ch0_layer004.tif

First number 'F- (Split) , second number Z -> 2 datasets with 1 channel and 5 Z layers will be created. Please note that the table show always only the layout of the first IMS dataset.



File Names with Delimiter | File Names without Delimiter

retina\_Ch **C** \_layer **T** .tif Summary  
 2 5 10 of 10 Files used.

File Arrangement

	T 1	T 2	T 3	T 4	T 5
Z 1 - C 1	retina_Ch0_layer000.tif	retina_Ch0_layer001.tif	retina_Ch0_layer002.tif	retina_Ch0_layer003.tif	retina_Ch0_layer004.tif
Z 1 - C 2	retina_Ch1_layer000.tif	retina_Ch1_layer001.tif	retina_Ch1_layer002.tif	retina_Ch1_layer003.tif	retina_Ch1_layer004.tif

First number C, second number T -> 1 dataset with 2 channels, 5 time points and 1 Z layer will be created.

## 2.1.2 File Names without Delimiter

To be used if filenames contain a single running numbers, e.g. retina\_000.tif

Series Reading Sequence - C:\tmp\running-number\retina\_001.tif

Reference File  
 C:\tmp\running-number\retina\_001.tif

File Names with Delimiter | File Names without Delimiter

Z 10 Summary  
 10 Files used.

File Arrangement

	T 1
Z 1 - C 1	retina_001.tif
Z 2	retina_002.tif
Z 3	retina_003.tif
Z 4	retina_004.tif
Z 5	retina_005.tif
Z 6	retina_006.tif
Z 7	retina_007.tif
Z 8	retina_008.tif
Z 9	retina_009.tif
Z 10	retina_010.tif

Voxel Size  
 X: 0,165 µm Y: 0,165 µm Z: 0,00 µm

OK Cancel

[1] Oder to loop inside the dimensions.

The available settings are:

- BLANK Ignore
- X Slices
- Y Slices
- Z Slices
- C Channels
- T Timepoints
- F (Split) Not needed. May crash Imaris when set!

At [1] you can set the dimensions used for the dataset and in which order the files are assigned to them.

At [2] you can set the number of items which will be assigned to the dimension above.

In the above screenshot this is 1 dataset with 1 channel and 10 Z layers.

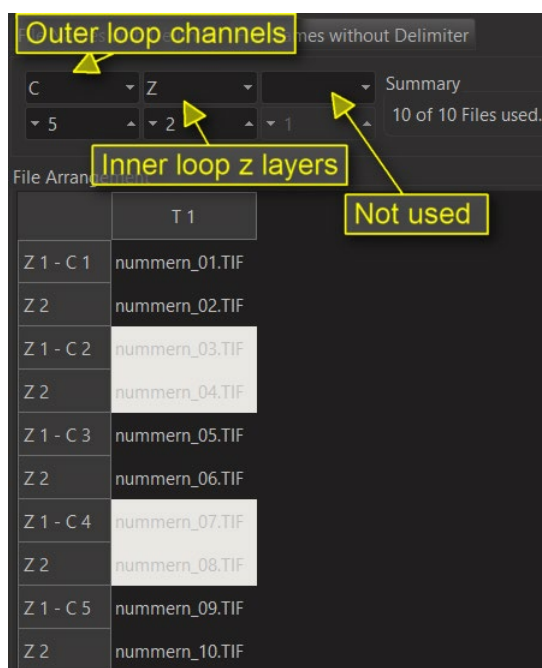
If you use multiple of the entries Imaris loops through the dimensions and assigns specified number of files to them in each round. The most right entry is for the inner loop and the most left for the outer. First the files with consecutive numbers will be added to the inner loop before the next dimension to the left starts to get filled.

Here are some examples:



Inner loop will be used for 2 channels. So files 01 and 02 go into the two channels of Z layer 1, time point 1. Middle loop is for Z layers so the files 03 and 04 go into Z layer 2, into the two channels. Now all dimensions of the inner two loops are filled and the outer loop starts to fill the second time point in the same order as the first one.

[1] Imaris found 10 files with the same base name but we now use only 8. That means something is wrong with our configuration of the dimensions, some files were lost after acquisition or the base name was not correctly detected.



The inner loop will be used for 2 Z layers. So file 01 and 02 goes into the two layers of the channel 1. Since Z can hold only two items the files 03 and 04 go into the the second channel. Since there are 5 channels to be filled this is repeted for the remaining channels. The third loop is not used in this example since no dimension is assignend to the most right entry.

### 2.1.3 Voxel Size and Channel colours

At the bottom of the window you find the voxel size.



Voxel Size

X: 0,165  $\mu\text{m}$  Y: 0,165  $\mu\text{m}$  Z: 0,00  $\mu\text{m}$

Set the Voxel size to have the correct calibration of the dataset. You may need to open the original dataset in the acquisition software to find the correct values. The calibration is very important to set **before** you start any analysis of the dataset. For a 2D dataset use 1. 0 will be not accepted by Imaris.

The units, here micrometer, are a global setting in Imaris main menu 'Preferences -> Display -> Unit of Length'.

Note: The time calibration you must set after the conversion in Surpass main menu 'Edit -> Image Properties... -> Geometry -> Time Point'.

Typically, all channels will be displayed in red. Please open the dataset in 'Surpass main menu -> Edit -> Image Properties -> Geometry -> Channel #'.

Image Properties

Geometry  
Data Set  
Channels  
Channel 1  
Channel 2  
Parameters

### Channel 1

Name: (name not specified)

Description: (description not specified)

Emission Wavelength:

Excitation Wavelength:

Pinhole Radius:

Base Color Mapped Color

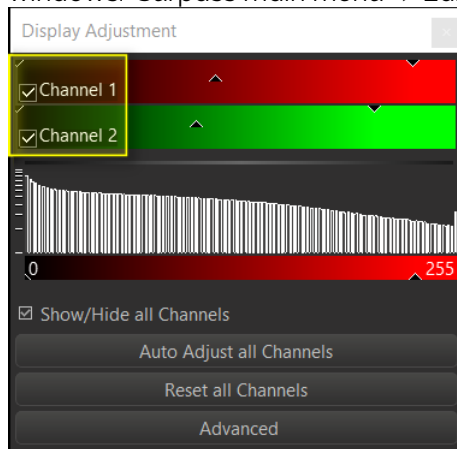
Red:

Green:

Blue:

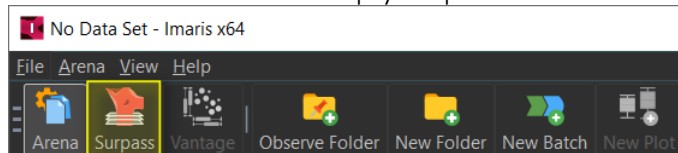
OK Cancel

Alternatively, you can come here by clicking in the name of the channel the 'Display Adjustment' windows. 'Surpass main menu -> Edit -> Show Display Adjustment'



### 3 Fiji Plugin From Imaris Surpass

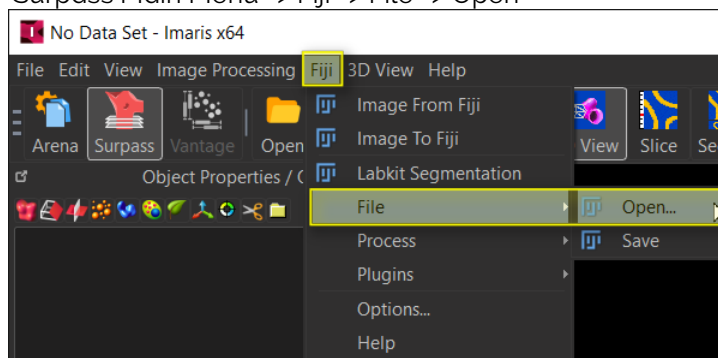
Mainly to be used for formats which are not at all supported by Imaris or Imaris File Converter. Switch from Arena to an empty Surpass from main Imaris bar of Icons



#### 3.1 Open files with the standard Fiji 'File – Open' tool

To be used first.

'Surpass Main Menu -> Fiji -> File -> Open'

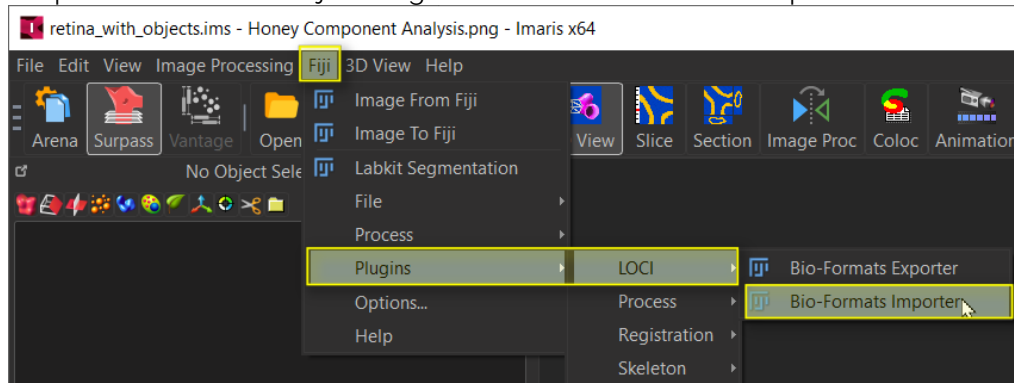


When you select a file, it will be opened by Fiji and directly send to Imaris.

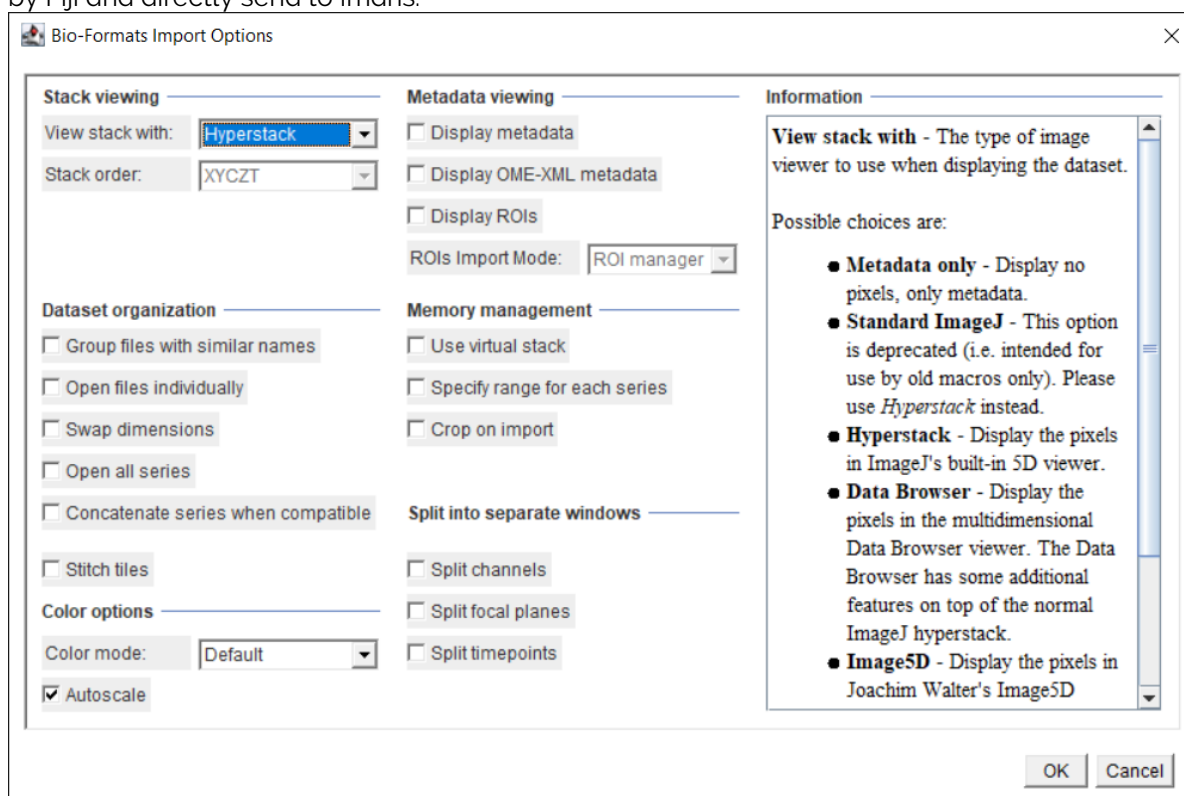
#### 3.2 Open files with the Fiji 'Plugins – Bio-Formats Importer' tool

This gives you more options for the import.

'Surpass Main Menu -> Fiji -> Plugins -> LOCI -> Bio-Formats Importer'



When you select a file, the Bio-Formats Import Options can be used, the datasets will be opened by Fiji and directly send to Imaris.



### 3.3 Open files with Fiji using any Plugin and or pre-processing

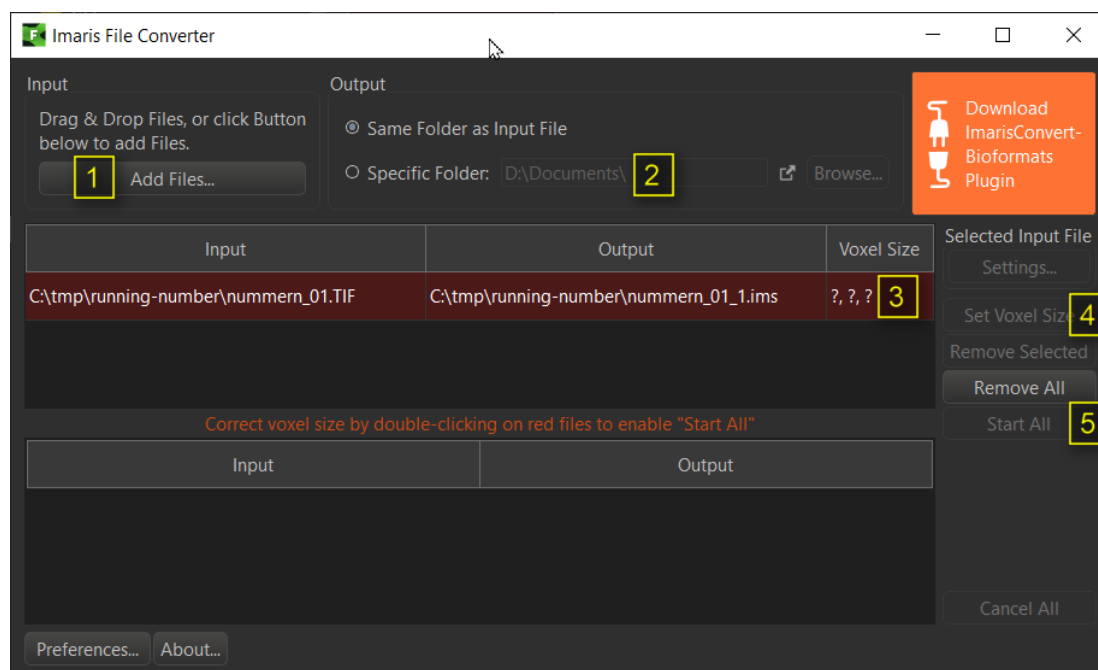
Use in case you need any other special plugin of Fiji to read the file.

- 1) Open Fiji using 'Surpass Main Menu -> Fiji -> Image from Fiji'
- 2) Use any desired function of Fiji to open and pre-process the file.
- 3) Transfer the dataset using 'Surpass Main Menu -> Fiji -> Image from Fiji' again.

## 4 Imaris File Converter

Imaris File Converter is a stand-alone application for converting many datasets in one go. It is installed with Imaris but on the customer portal there is a as well a version to be installed alone. You do not need a license so you can install it e.g, on your file server.

## 4.1 Graphical User Interface



Add files to be converted either by Drag&Drop or using the 'Add Files' button.

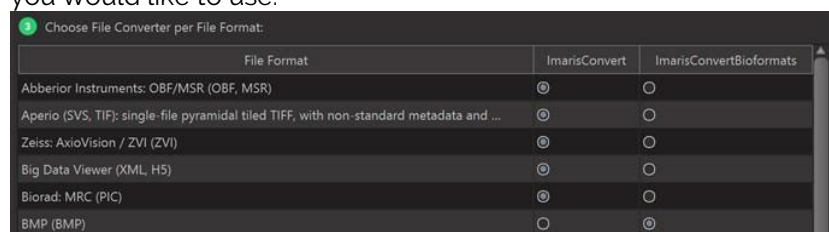
1. Add files to be converted either by Drag&Drop or using the [1] 'Add Files' button.
2. Chose were you like to store the output. If you chose [2]'Specific Folder' all files will be stored there no matter from which directory level they origin.
3. If there are question marks in the column [3] 'Voxel Size' Select the lines which should get the same calibration and click [4]'Set Voxel Size'. For a 2D dataset use 1. 0 will be not accepted by Imaris.
4. Press [5] 'Start All' to start the conversion.

## 4.2 If you do not get the desired result:

### 4.2.1 Using BioFormats Readers

ImarisFileConverter9.9 can use the open source program [ImarisConvertBioformats](#) to convert images from other formats to the IMS format.

At 'Preferences -> Bio-Formats -> Configuration' you can select per file format which converter you would like to use.



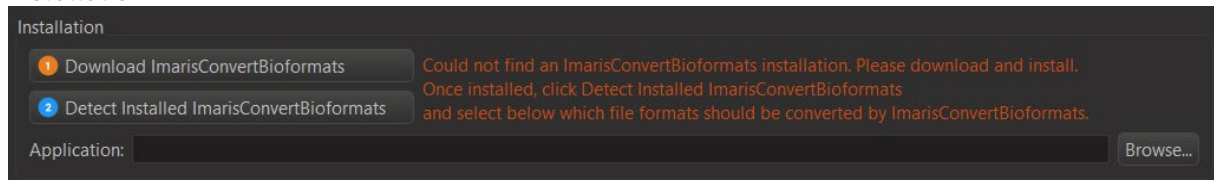
For those formats, for which you choose ImarisConvertBioformats, file format detection is a two-step process. When a file is added to ImarisFileConverter first it tries to detect the format. If it is a format for which ImarisConvertBioformats is selected as the converter, then the file will be processed by the plugin. This means If ImarisFileConverter can not detect the format at all this method will not work.

The two-step process can take noticeably longer for some formats (compared to file format detection by ImarisConvert alone) as the speed with which ImarisConvertBioformats queries the format and the voxel size varies a lot for different file formats.

### Setup:

The program ImarisConvertBioformats itself uses the open source [Bio-Formats](#) file readers to read images and it uses the open source [ImarisWriter](#) to write IMS files.

You may first download and then detect the plugin at Preferences -> Bio-Formats -> Installation'.



Hint it may be that you see the above, but the plugin is already installed but just not connected so you may press (2) first. Only if this detection fails press (1) and install the Plugin ImarisConvertBioformats.exe followed by pressing (2) again.

#### 4.2.2 If there are problems arranging Tiff files

It is recommended to try first to import the native file format of the acquisition device. If supported by Imaris this will give you the best experience since you can expect to preserve dimensions, calibration, and channel colours of the native format.

You can find the supporter file formats at 'Imaris main menu -> Help -> Preface - Getting Started -> Supported File Formats'

If there is no other choice and you need to import series of tiff files the converter tries to deduct the correct dimensions from the file names. By default, files with the same base name and size are stored into the same dataset.

If the name contains only one running number, it is interpreted as a Z stack or time series.

If the name contains multiple running number leaded by one of the below characters, the characters determine which dimensions are used.

Basename\_C?number Channel

Basename \_T?number Time

Basename \_Z?number Slice

Basename \_X?number Column

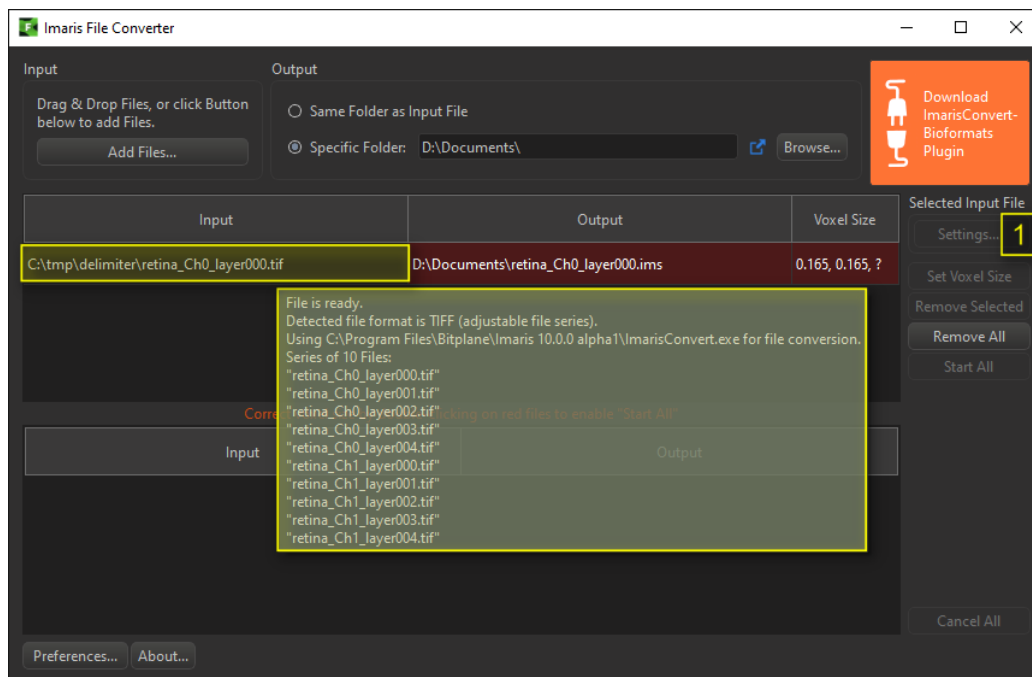
Basename \_Y?number Row

The ? can be any character or absent (\_Cnumber)

It does not distinguish between upper and lower case.

There are more latter codes you can change at 'Preferences – File Conversion'.

A preview of which files will be used to build a IMS file you can hover over the Input entry.



In case the automatic detection of the series still fails use [1] Settings button to open the File Series Reader. Please read the 'File Series Reader' chapter.

### 4.3 File Series Reader

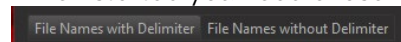
The Imaris File Series Reader is a tool to handle series of numbered files. It allows you to group the files into datasets with the desired number of sections, channels and time points. The names and sizes of the files are used to arrange them.

- Datasets which files are stored in multiple directories are not supported
- It is available for plain Tiff files **only**, not e.g OME TIFF. Tiff files where Imaris finds metadata about the organisation of the dataset cannot be handled.
- It is recommended to store the files of different datasets into separate directories to simplify the task.

The File Series Reader can be started with a selected input file [1] 'Settings...'

Please note that you can as well use the tool from Arena on a thumbnail 'RIGHT-MOUSE -> Configure File Series'

When started you need choose how the type of the naming of the files



- If the file name has multiple running numbers for different dimensions chose 'File Names with Delimiter' e.g.

```
retina_Ch0_layer000.tif
retina_Ch0_layer001.tif
retina_Ch0_layer002.tif
retina_Ch0_layer003.tif
retina_Ch1_layer004.tif
retina_Ch1_layer005.tif
retina_Ch1_layer006.tif
retina_Ch1_layer007.tif
retina_Ch1_layer008.tif
retina_Ch0_layer009.tif
```

retina\_Ch0\_layer010.tif

retina\_ is the base name

Ch0 contains the running number for the channels

layer001 contains the running number for the layers (slices).

- If the files with the identical base name have one running number chose the Tab 'File Names without Delimiter' e.g.:

retina\_001.tif  
retina\_002.tif  
retina\_003.tif  
retina\_004.tif  
retina\_005.tif  
retina\_006.tif  
retina\_007.tif  
retina\_008.tif  
retina\_009.tif  
retina\_010.tif

retina\_ is the base name

001 is a single running number for all files of the dataset

Notes:

- It is recommended to store the files of different datasets into sperate directories to simplify the task.
- Datasets which files are stored in multiple directories are not supported

#### 4.3.1 File Names with Delimiter

To be used if filenames contain multiple running numbers. E.g. retina\_Ch**0**\_layer**000**.tif

The TIFF reader uses some default patterns \_C?number \_T?number \_S?number. That \_[letter] codes are used to assign the different dimensions and sort the files automatically into channels, time points, slices etc.

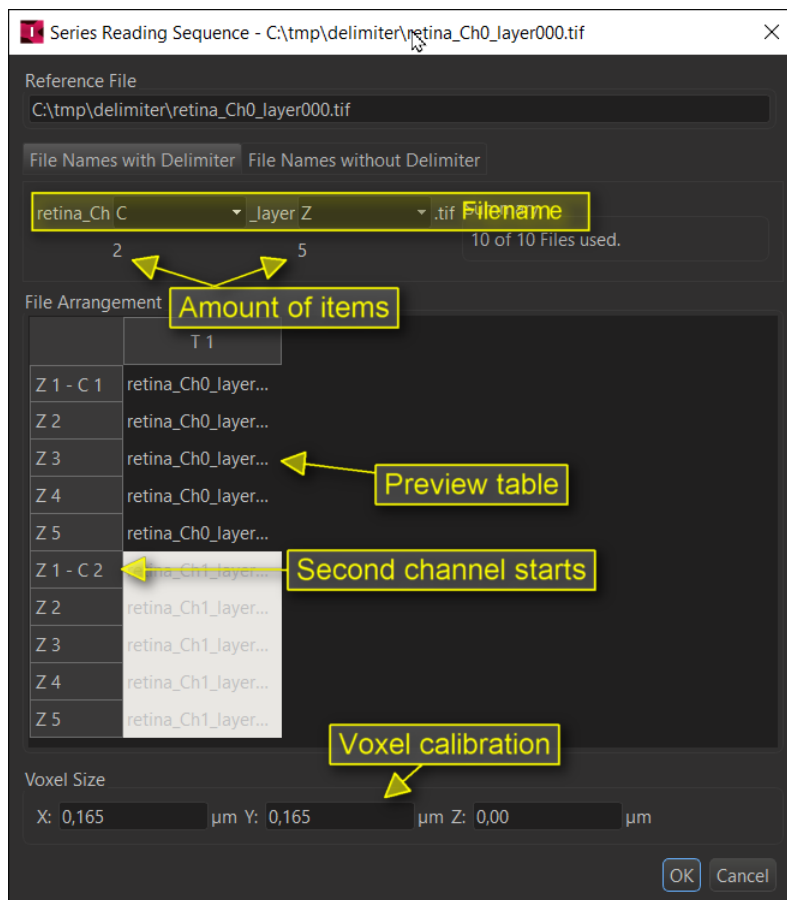
_C?number	-C	_CH	_W	Channel
_T?number				Time
_Z?number	-Z	_S		Slice
_X?number	-Y			Column
_Y?number	-Y			Row

The ? can be any character or absent

It does not distinguish between upper and lower case.

If the automatic assignment does not work, you can use the 'Series Reading Sequence' tool to further tune it for specific files.





Imaris will show the filename and at the place of the running number a menu to select how the number should be interpreted:

BLANK Ignore

X Slices

Y Slices

Z Slices

C Channels

T Timepoints

F (Split) Split the files into the next dataset if the number changes.

Below the number of items are shown which will be assigned to the chosen dimensions. In the screenshot this are 2 channel and 5 Z layers.

The table 'File Arrangement' shows a preview of the resulting first dataset which will be created.

Here are a few examples:



File Names with Delimiter File Names without Delimiter

retina\_Ch **T** \_layer **Z** .tif Summary  
2 5 10 of 10 Files used.

File Arrangement

	T 1	T 2
Z 1 - C 1	retina_Ch0_layer000.tif	retina_Ch1_layer000.tif
Z 2	retina_Ch0_layer001.tif	retina_Ch1_layer001.tif
Z 3	retina_Ch0_layer002.tif	retina_Ch1_layer002.tif
Z 4	retina_Ch0_layer003.tif	retina_Ch1_layer003.tif
Z 5	retina_Ch0_layer004.tif	retina_Ch1_layer004.tif

First number T, second number Z -> 1 datasets with 1 channel, 2 time points and 5 Z layers will be created.

File Names with Delimiter File Names without Delimiter

retina\_Ch **Z** \_layer **T** .tif Summary  
2 5 10 of 10 Files used.

File Arrangement

	T 1	T 2	T 3	T 4	T 5
Z 1 - C 1	retina_Ch0_layer...	retina_Ch0_layer...	retina_Ch0_layer...	retina_Ch0_layer...	retina_Ch0_layer...
Z 2	retina_Ch1_layer...	retina_Ch1_layer...	retina_Ch1_layer...	retina_Ch1_layer...	retina_Ch1_layer...

First number Z, second number T -> 1 datasets with 1 channel, 2 Z layers and 5 timepoints will be created.

File Names with Delimiter File Names without Delimiter

retina\_Ch **F (Split)** \_layer **Z** .tif Summary  
2 5 10 of 10 Files used.

File Arrangement

	T 1
Z 1 - C 1	retina_Ch0_layer000.tif
Z 2	retina_Ch0_layer001.tif
Z 3	retina_Ch0_layer002.tif
Z 4	retina_Ch0_layer003.tif
Z 5	retina_Ch0_layer004.tif

First number 'F- (Split) , second number Z -> 2 datasets with 1 channel and 5 Z layers will be created. Please note that the table show always only the layout of the first IMS dataset.

File Names with Delimiter | File Names without Delimiter

retina\_Ch **C** \_layer **T** .tif Summary  
 2 5 10 of 10 Files used.

File Arrangement

	T 1	T 2	T 3	T 4	T 5
Z 1 - C 1	retina_Ch0_layer000.tif	retina_Ch0_layer001.tif	retina_Ch0_layer002.tif	retina_Ch0_layer003.tif	retina_Ch0_layer004.tif
Z 1 - C 2	retina_Ch1_layer000.tif	retina_Ch1_layer001.tif	retina_Ch1_layer002.tif	retina_Ch1_layer003.tif	retina_Ch1_layer004.tif

First number C, second number T -> 1 dataset with 2 channels, 5 time points and 1 Z layer will be created.

#### 4.3.2 File Names without Delimiter

To be used if filenames contain a single running number. E.g. retina\_000.tif

Series Reading Sequence - C:\tmp\running-number\retina\_001.tif

Reference File  
 C:\tmp\running-number\retina\_001.tif

File Names with Delimiter | File Names without Delimiter

Z **10** Summary  
 10 of 10 Files used.

File Arrangement

	T 1
Z 1 - C 1	retina_001.tif
Z 2	retina_002.tif
Z 3	retina_003.tif
Z 4	retina_004.tif
Z 5	retina_005.tif
Z 6	retina_006.tif
Z 7	retina_007.tif
Z 8	retina_008.tif
Z 9	retina_009.tif
Z 10	retina_010.tif

Voxel Size  
 X: 0,165 µm Y: 0,165 µm Z: 0,00 µm

OK Cancel

[1] Oder to loop inside the dimensions.

The available settings are:

- BLANK Ignore
- X Slices
- Y Slices
- Z Slices
- C Channels
- T Timepoints
- F (Split) Not needed. May crash Imaris when set!

At [1] you can set the dimensions used for the dataset and in which order the files are assigned to them.

At [2] you can set the number of items which will be assigned to the dimension above.

In the screenshot this is 1 dataset with 1 channel and 10 Z layers.

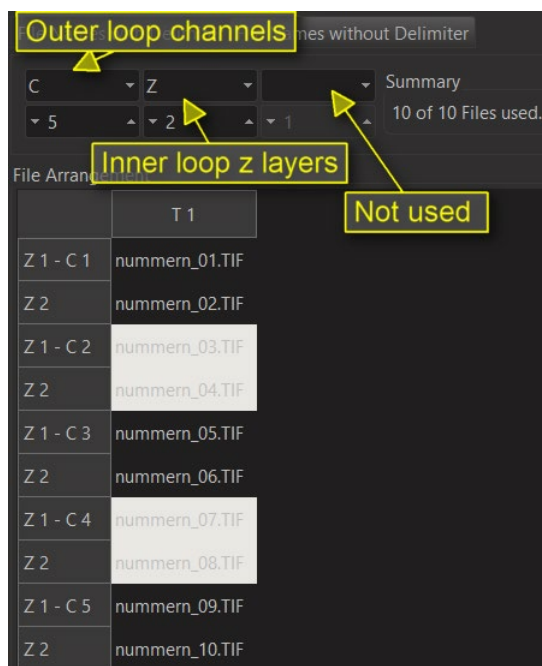
If you use multiple of the entries Imaris loops through the dimensions and assigns specified number of files to them in each round. The most right entry is for the inner loop and the most left for the outer. First the files with consecutive numbers will be added to the inner loop before the next dimension to the left starts to get filled.

Here are some examples:



Inner loop will be used for 2 channels. So files 01 and 02 go into the two channels of Z layer 1, time point 1. Middle loop is for Z layers so the files 03 and 04 go into Z layer 2, into the two channels. Now all dimensions of the inner two loops are filled and the outer loop starts to fill the second time point in the same order as the first one.

[1] Imaris found 10 files with the same base name but we now use only 8. That means something is wrong with our configuration of the dimensions, some files were lost after acquisition or the base name was not correctly detected.

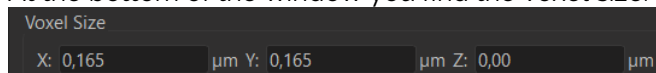


The inner loop will be used for 2 Z layers. So file 01 and 02 goes into the two layers of the channel 1. Since Z can hold only two items the files 03 and 04 go into the the second channel. Since there are 5 channels to be filled this is repeated for the remaining channels.

The third loop is not used in this example since no dimension is assigned to the most right entry.

### 4.3.3 Voxel Size and Channel colours

At the bottom of the window you find the voxel size.

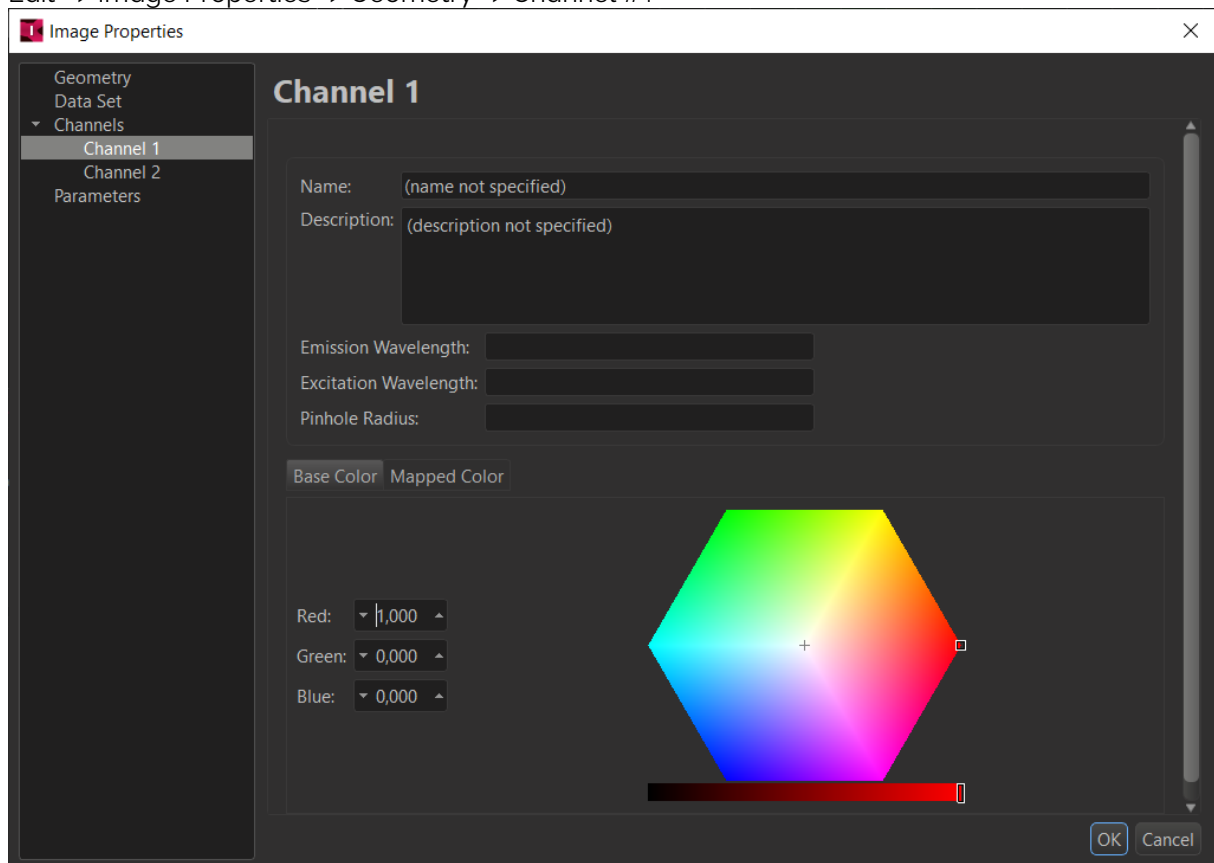


Set the Voxel size to have the correct calibration of the dataset. You may need to open the original dataset in the acquisition software to find the correct values. The calibration is very important to set **before** you start any analysis of the dataset. For a 2D dataset use 1. 0 will be not accepted by Imaris.

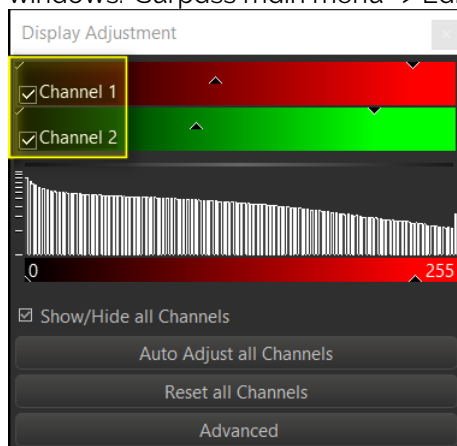
The units, here micrometer, are a global setting in Imaris main menu 'Preferences -> Display -> Unit of Length'.

Note: The time calibration you must set after the conversion in Surpass main menu 'Edit -> Image Properties... -> Geometry -> Time Point'.

Typically, all channels will be displayed in red. Please open the dataset in 'Surpass main menu -> Edit -> Image Properties -> Geometry -> Channel #'.



Alternatively, you can come here by clicking in the name of the channel the 'Display Adjustment' windows. 'Surpass main menu -> Edit -> Show Display Adjustment'



## 4.4 Command Line Version of Imaris File Converter

there is a command line version for the FileConverter which can be used e.g. in your own scripts.

It is in your Imaris and ImarisFileConverter installation folder. E.g,  
c:/program files/Bitplane/Imaris 9.9.1

You get a first help by running this command from the command line:  
`ImarisConvert.exe --help`

If you need some inspiration, you can have a look at the log files that the FileConverter creates.  
Enable the logging at: 'Imaris File Converter -> Preferences -> Settings -> Logger'.

There is a link (show log) in the Preferences to open the Log directly from there.

Now convert a file and have a look into the log.

The file will be placed on Windows at:

"C:/Users/USERNAME/AppData/Local/Temp/ImarisFileConverter.log"

There is a link (show log) in the Preferences to open the Log directly from there.

A typical command line could look like this:

```
C:\Program Files\Bitplane\Imaris 9.9.1\ImarisConvert.exe" -lp -i  
"D:\Source\WB-Live_F12_w1_s1_z1_t1.tif" -ii 0 -ps 8000 -nt 24 -of Imaris5 -  
o "D:\MyOutput.ims" -vs "0.000 0.000 0.000" -il "D:\Test.txt" --log  
D:\temp\Log.LOG
```

Please Note: This is really only a raw backend of the GUI so it e.g. does not warn when it overwrites files.

