

Quick Guide

ZEN 2012 SP2

Importing and exporting images



We make it visible.

Carl Zeiss Microscopy GmbH

Carl-Zeiss-Promenade 10
07745 Jena, Germany
microscopy@zeiss.com
www.zeiss.com/microscopy



Carl Zeiss Microscopy GmbH

Königsallee 9-21
37081 Göttingen
Germany

Effective from: June 2014

© Jena 2014 by Carl Zeiss Microscopy GmbH - all rights reserved

This document or any part of it must not be translated, reproduced, or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information or retrieval system. Violations will be prosecuted.

The use of general descriptive names, registered names, trademarks, etc. in this document does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use. Software programs will fully remain the property of ZEISS. No program, documentation, or subsequent upgrade thereof may be disclosed to any third party, unless prior written consent of ZEISS has been procured to do so, nor may be copied or otherwise duplicated, even for the customer's internal needs apart from a single back-up copy for safety purposes.

ZEISS reserves the right to make modifications to this document without notice.



Content

1	Workflow Export/Import	9
2	Export images with one click	15
3	Export movies with one click	19
4	Export multichannel images to a ZIP file	23
5	Export the individual tiles of a tile image	27
6	Import a Z-stack image from individual images	31



Workflow Export/Import

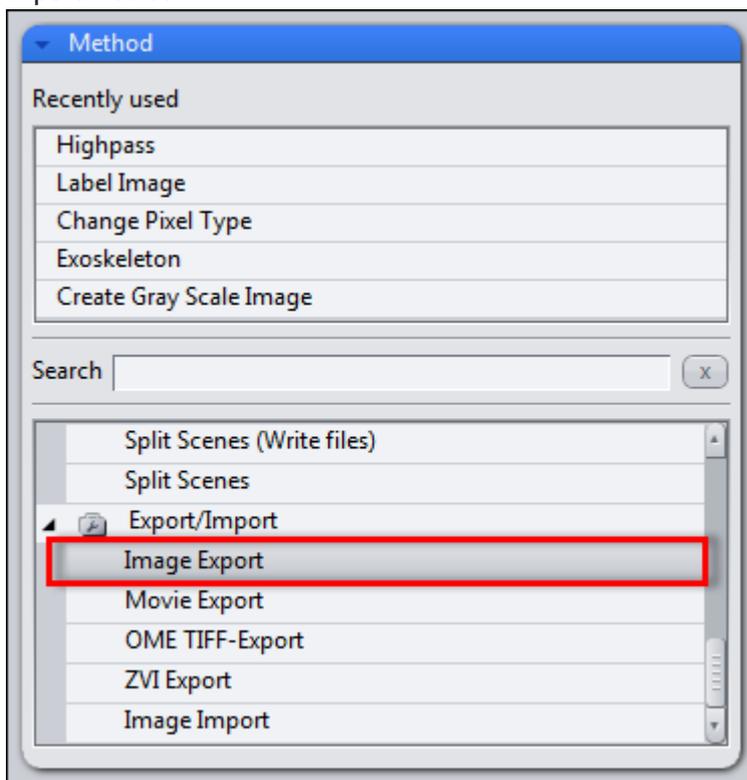
1 Workflow Export/Import

This example describes the workflow for the **Image Export**. The typical workflow is the same for both export and import of images.

Prerequisites ■ You have selected the **Processing** tab.

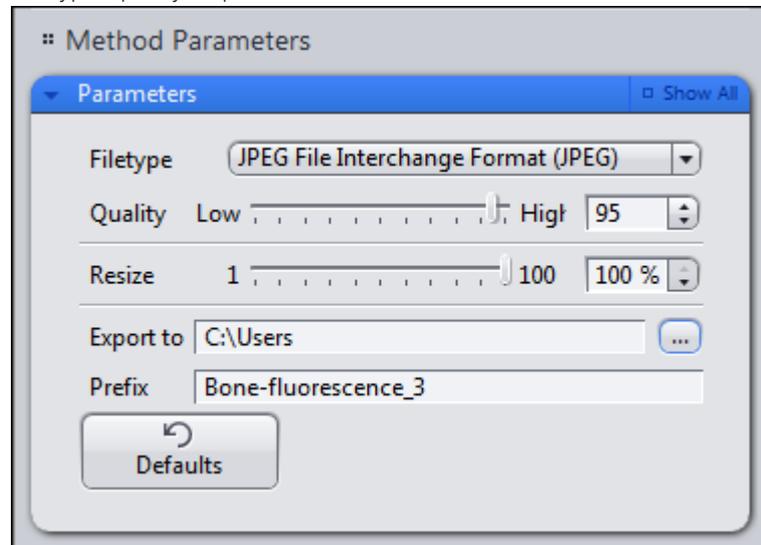
Procedure 1 **Select a method**

In the **Method** tool open the **Export/Import** group and select the **Image Export** method.



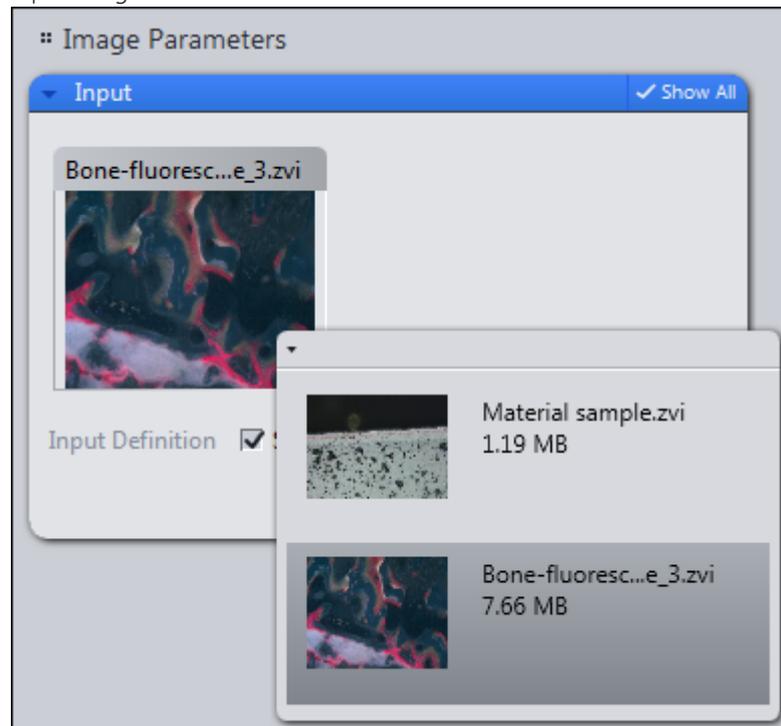
2 Set method parameters

Under **Method Parameters | Parameters**, set the desired export settings, e.g. file type, quality, export folder, etc..



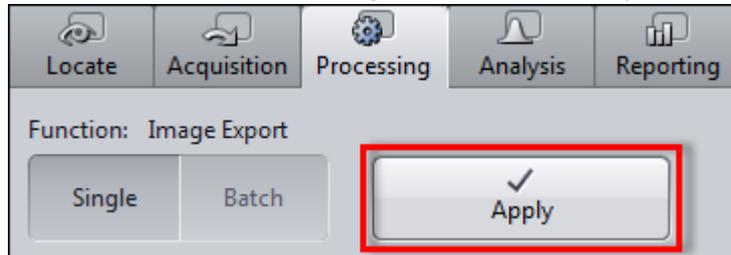
3 Select the image to export

Under **Image Parameters | Input**, select the image you want to export. To do this, click on the small preview image within the **Input** tool. You will see a preview of all the open images. To select an image, click on the image that you want to use. This is only necessary if you have several images open simultaneously. By default, the image currently selected is always used as the input image.



4 Export the image

On the top part of the **Processing** tab, click on the **Apply** button.



You have successfully exported the selected image.



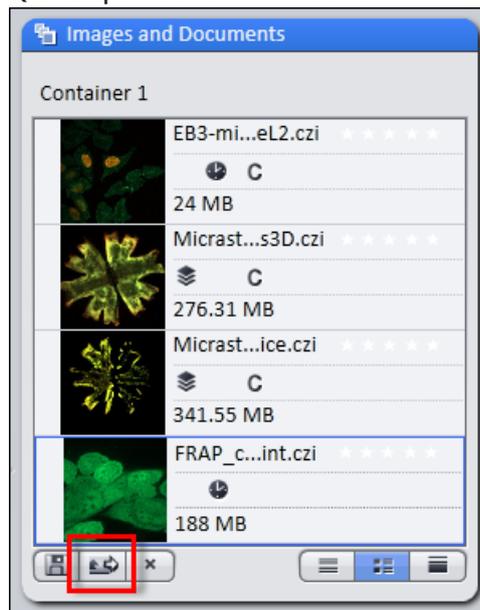
Export images with one click

2 Export images with one click

Using the **Quick Export** function you can export images automatically with a single click of the mouse, without setting the method parameters.

Prerequisites ■ You have acquired or opened an image.

Procedure 1 In the **Right Tool Area | Images and Documents** tool click on the **Quickexport** button at the bottom of the tools window.



Alternatively, you can click on the **Quick Export** entry on the **File** menu | **Import/Export**.

The selected image is automatically exported with the default settings of the **Image Export** method (JPEG, quality 95%, size 100%). The image can then be found in a subfolder within the Windows image folder (.../User/My Pictures).

i Info

If you export a time lapse image using the Quickexport function, a film is automatically generated using the default values of the **Film Export** method.

3

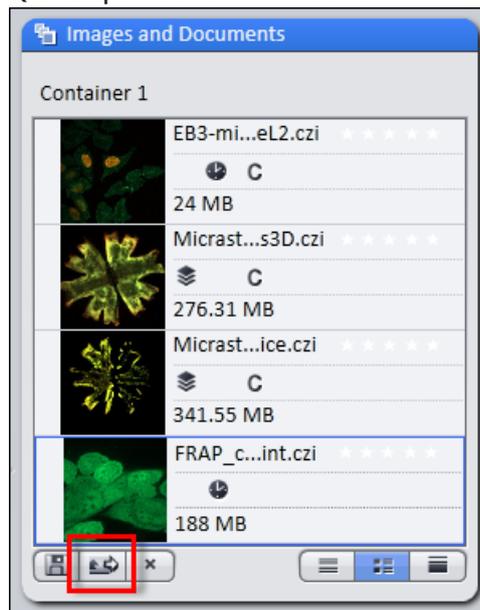
Export movies with one click

3 Export movies with one click

Using the **Quick Export** function you can export films automatically with a single click of the mouse, without setting the method parameters.

Prerequisites ■ You have acquired or opened an image from a time series or a Z-stack image.

Procedure 1 In the **Right Tool Area | Images and Documents** tool click on the **Quickexport** button at the bottom of the tools window.



Alternatively, you can click in the **File** menu | **Export/Import** on the **Quick Export** entry.

The selected experiment is automatically exported with the default settings of the **Movie Export** method (Mode: **AVI (M-JPEG)**, Format: **Original Size**, Mapping: **1 Frame per image**). The movie will be exported to your default video folder (.../User/My Videos).

4

Export multichannel images to a ZIP file

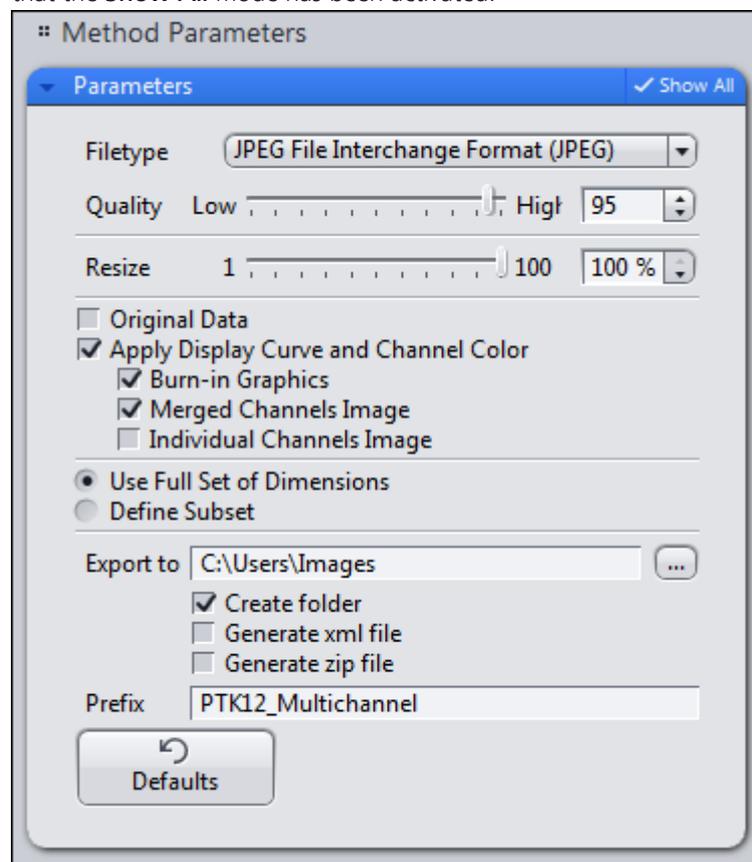
4 Export multichannel images to a ZIP file

Here you will find out how to export individual images from a multichannel image with three channels and save them automatically in a ZIP archive. You will also discover how to export the whole multichannel image (pseudo color image) as an individual image.

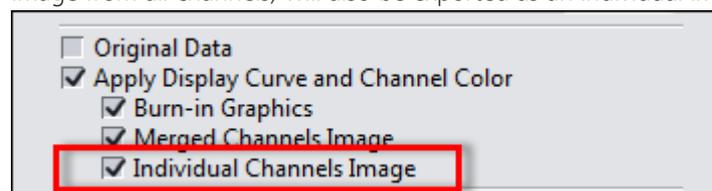
Prerequisites ■ You have acquired or opened a multichannel image.

Procedure 1 In the **Processing** tab open the parameters for **Image Export**.

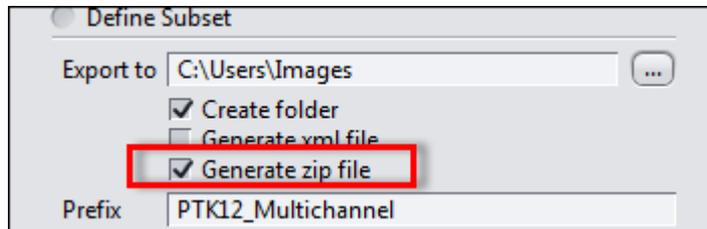
You will see the default settings of the parameters for image export. Make sure that the **Show All** mode has been activated.



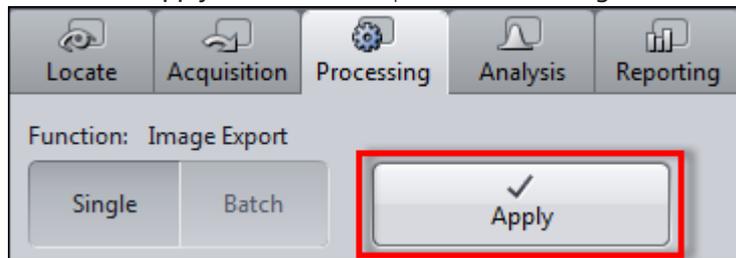
2 Activate the **Individual Channels Image** checkbox. This means that an image will be exported from each channel. The **Merged Channels Image** checkbox is activated by default. This means that the pseudo color image (mixed color image from all channels) will also be exported as an individual image.



- Under **Export To** activate the **Generate zip file** checkbox. If you have activated the **Create folder** checkbox, a subfolder with the name of the prefix will be created. The ZIP file is then saved in the subfolder.



- Click on the **Apply** button at the top of the **Processing** tab.



You have exported the images of the individual channels and the pseudo color image of your multichannel image and automatically saved them in a zip file. The file containing the individual images can be found in the export folder indicated.



Export the individual tiles of a tile image

5 Export the individual tiles of a tile image

Prerequisites ■ You have acquired or opened a tile image.

Procedure 1 In the **Processing** tab open the parameters for **Image Export**.

You will see the settings of the parameters for image export. Make sure that the **Show All** mode has been activated.

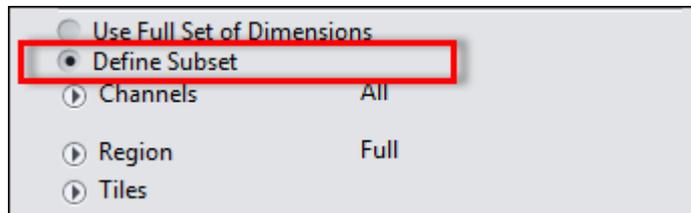
2 Select the file type that you want to use. We recommend the **PNG** format, as this is a format that offers lossless compression with an acceptable file size.

i Info

In the case of particularly large tile images, we recommend that you reduce the size of the images you want to export. To do this, set a percentage under **Resize** by which you want the images for export to be reduced, e.g. by 25%.

3 Activate the **Apply Display Curve and Channel Color** checkbox. This means that the images will be exported with the settings you have made, e.g. tonal value corrections or contrast. If you activate the **Original Data** checkbox, the images are exported unchanged. In this case, the settings from the display characteristic curve, e.g. tonal value corrections and contrast, are not adopted.

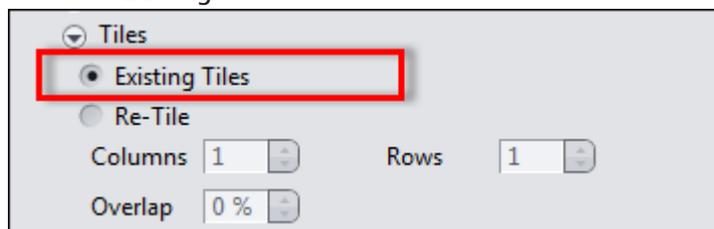
4 Select the **Define Subset** radio button.



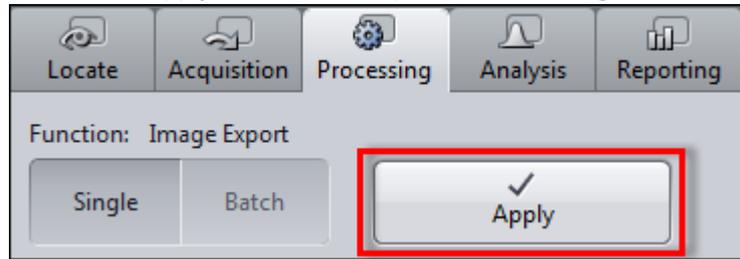
The settings for the available dimensions will be displayed.

5 Open the settings for the **Tiles** dimension.

6 Select the **Existing Tiles** radio button.



- 7 Click on the **Apply** button at the top of the **Processing** tab.



You have successfully exported the individual tiles from a tile image. The files can be found in the export folder indicated.

6

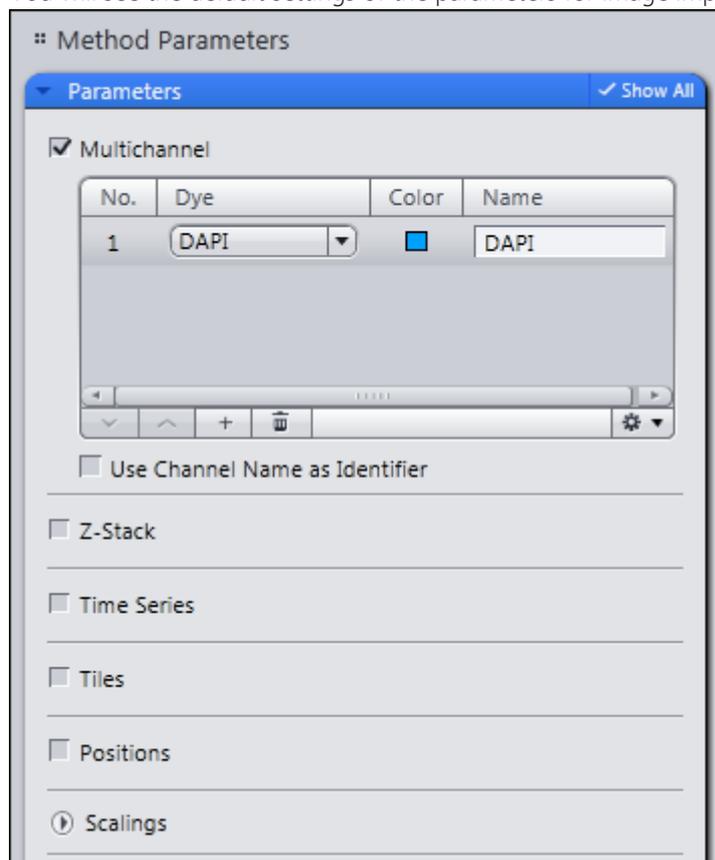
Import a Z-stack image from individual images

6 Import a Z-stack image from individual images

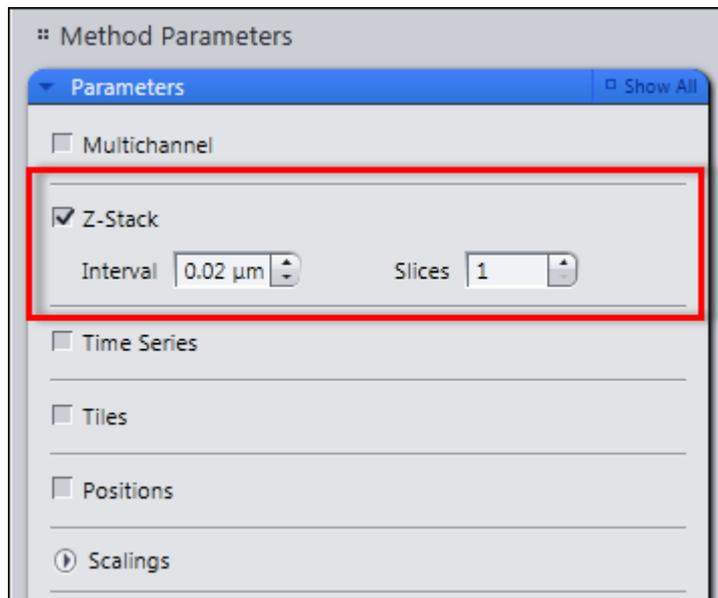
Prerequisites ■ You have saved the individual images of a Z-stack in a folder on your computer. The images have been named systematically, e.g. Image_Z0, Image_Z01, etc...

Procedure 1 In the **Processing** tab open the parameters for Image Export.

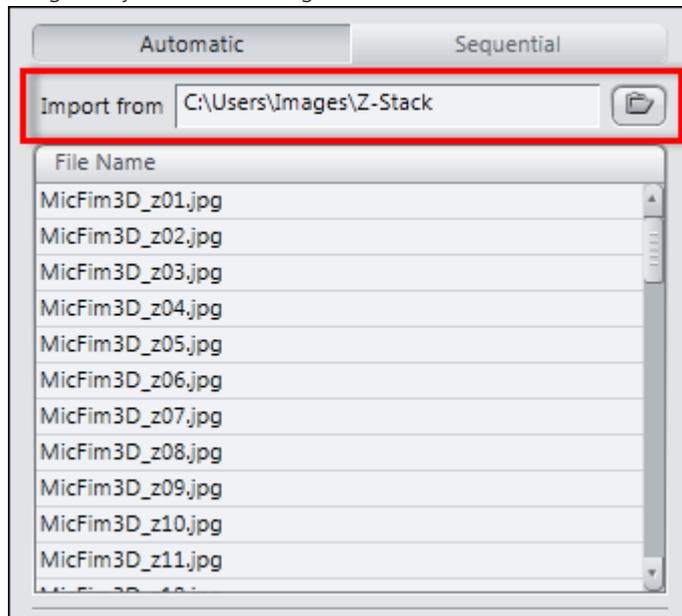
You will see the default settings of the parameters for image import.



- 2 Activate the **Z-stack** checkbox. Deactivate all the other dimensions.

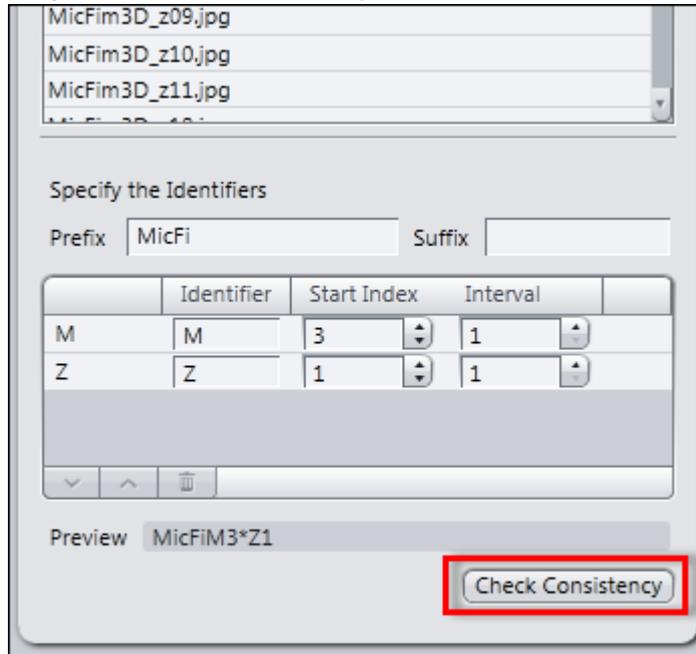


- 3 Enter the **Interval** for the Z-stack. The number of slices is set automatically if the images have been named systematically (see above).
- 4 In the **Import From** section, select the folder that contains the individual images of your Z-stack image.

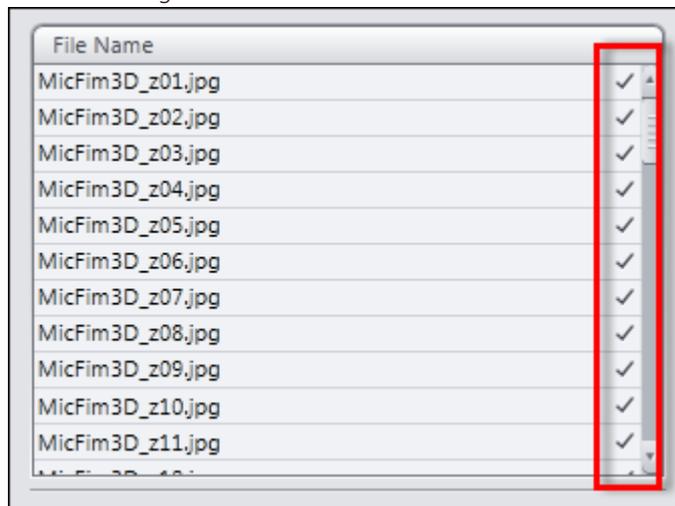


The individual images are displayed automatically in the list under the import directory.

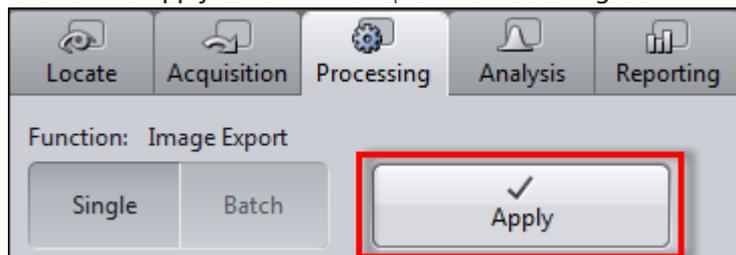
- 5 Click on the **Check Consistency** button. This allows you to check whether the images can be imported correctly.



A check mark appears after each file name in the list. You can import the individual images now.



- 6 Click on the **Apply** button at the top of the **Processing** tab.



The individual images are imported and combined to form a Z-stack image. You have successfully imported a Z-stack image from individual images.

Carl Zeiss Microscopy GmbH

Carl-Zeiss-Promenade 10
07745 Jena, Germany
microscopy@zeiss.com
www.zeiss.com/microscopy



Carl Zeiss Microscopy GmbH

Königsallee 9-21
37081 Göttingen
Germany

ZEISS reserves the right to make modifications to this document without notice.

© Jena 2014 by Carl Zeiss Microscopy GmbH - all rights reserved