Acquire Image Series Help

About Acquire Image Series Help

Conventions

The typographic conventions used in this help are described below.

Convention	Description
Bold	Used to denote components of the user interface such as buttons, field names, menus, and menu options. For example, the **New** button.
Menu...MenuOption	Select the menu from the menu bar then select the menu option from the menu. For example, **File...Open** would mean to select the **File** menu and then the **Open** option.
CAPS	Used to denote the name of a key on the keyboard. For example, the ENTER key.
Italics	Used to denote emphasis, captions and the result of an action in a procedure.

Contact Us

General enquiries on the Acquire Image Series for DigitalMicropraph should be sent to:

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Higashimatsuyama
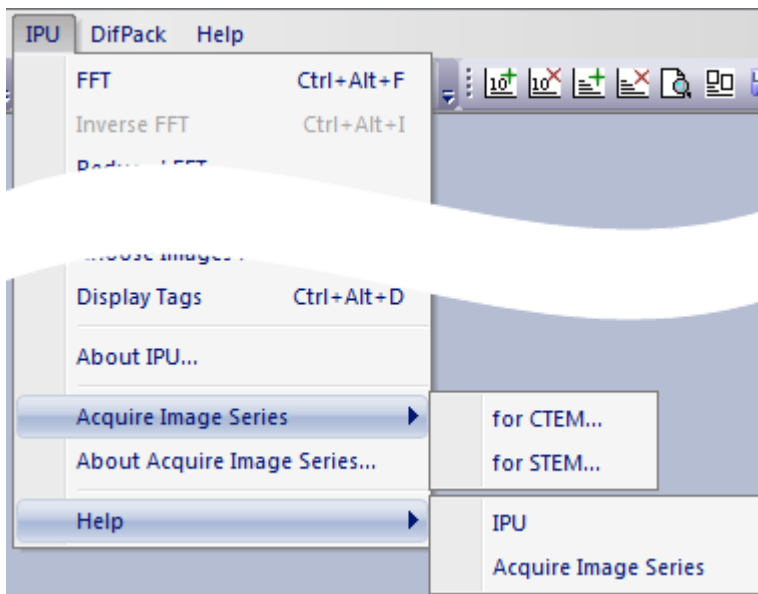Saitama 355-0055
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The Acquire Image Series Command Reference

The options in the Acquire Image Series menu are described below.

Option	Description
Acquire Image Series	
for CTEM	Acquires CTEM image series
for STEM	Acquires STEM image series
About Acquire Image Series	Information about Acquire Image Series

Acquire Image Series for CTEM

Opens the Acquire CTEM Image Series Setup dialog where you can control image acquisition including a defocus step. When you press 'OK,' a series of images will be acquired automatically.
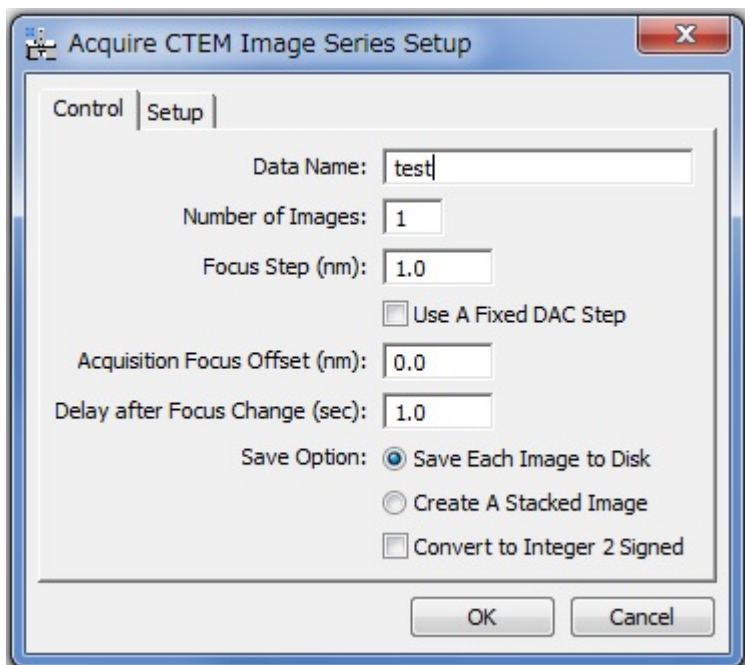
Note: You may have to check an objective lens hysteresis which will affect an actual defocus value. It is advisable to establish a hysteresis loop and collect images along the same direction of the loop.

Acquire CTEM Image Series Setup dialog
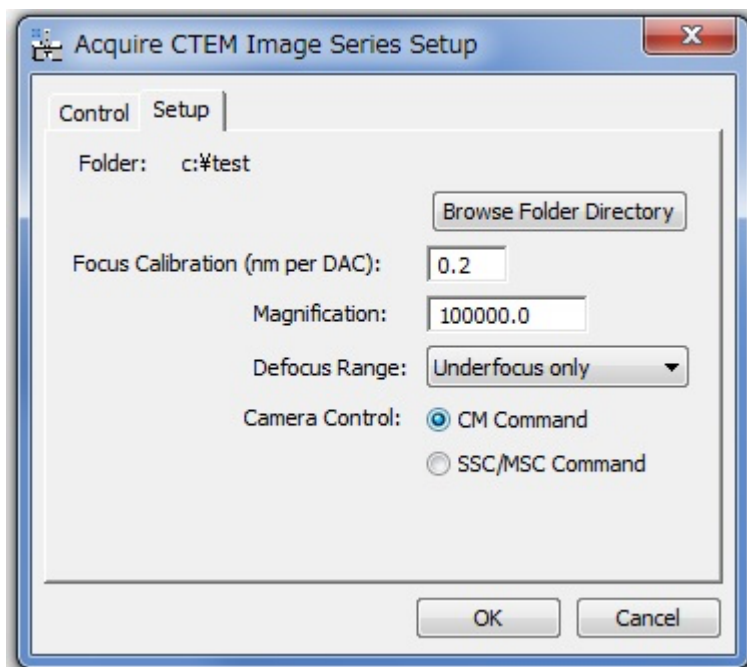
The components of the dialog are described below.

Component	Description
Control Tab	For information about the components of the Control tab, see Control Tab below.
Setup Tab	For information about the components of the Setup tab, see Setup Tab below.
OK	Closes the dialog and acquires the specified number of images according to the specified parameters.
Cancel	Closes the dialog without executing the command.

Control Tab

Component	Description
Data Name	Acquired images will be identified with this name and an added sequential number.
Number of Images	Acquired number of images (positive number).
Focus Step	Defocus step between each image (in nm). The closest defocus DAC will be used, so the defocus step may not be exactly the same. The direction of defocus change will be specified by gDefocus Range h parameter in the Setup Tab.
Use A Fixed DAC Step	If checked, a fixed DAC close to the specified defocus step will be used.
Acquisition Focus Offset	Specifies the focus change for a first image from the current focus value.
Delay after Focus Change	Settling time after focus change (in sec)
Save Option	
Convert to Integer 2 Signed	Save an acquired image as Integer 2 Signed after converting from an Integer 4 Signed image. Use this option only when your image is known to be expressed as Integer 2 Signed. (Currently, an image will be acquired as Integer 4 Signed and requires a large memory space.)

Setup Tab

Component	Description
Folder	Acquired images will be saved into this folder, when 'Save Image to Disk' is selected. You can browse the folder directory.
Focus Calibration	Specifies a focus change in nm produced by a unit DAC change. This will be automatically specified, when you have Gatan's plug-in to measure this value.
Magnification	Image magnification (This will be read from your microscope, if possible.)
Defocus Range	Defocus range and direction of defocus can be selected from: Underfocus only/Overfocus only/Over to underfocus/Under to overfocus. The current defocus is the start defocus or the middle defocus of the Defocus Range depending on the range selection.
Camera Command	If you are using a very old CCD camera, you may have to use SSC/MSC command.

Acquire STEM Image Series

Opens the <u>Acquire STEM Image Series Setup dialog</u> where you can control image acquisition including a defocus step. When you press 'OK,' a series of images will be acquired automatically.
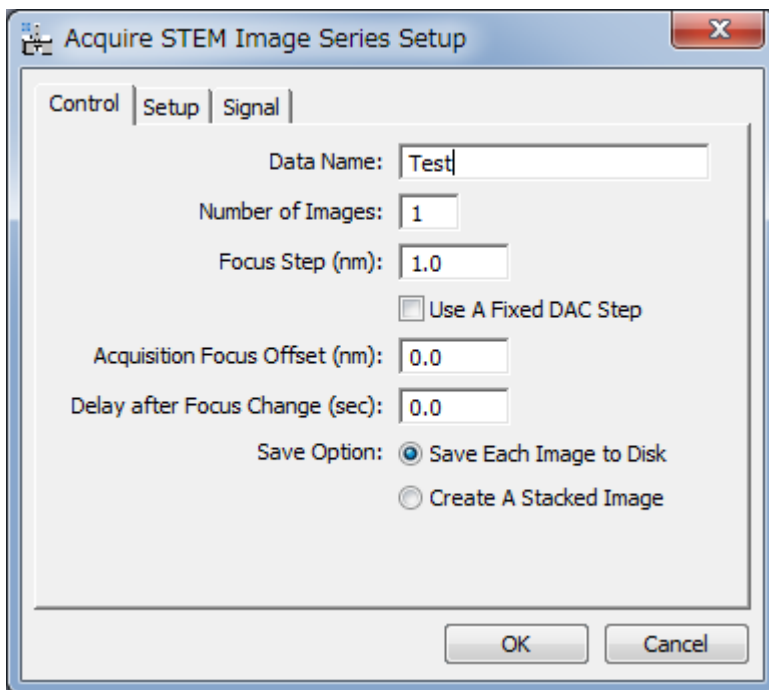
Note: You may have to check an objective lens hysteresis which will affect an actual defocus value. It is advisable to establish a hysteresis loop and collect images along the same direction of the loop.

Acquire STEM Image Series Setup dialog

The components of the dialog are described below.

Component	Description
Control Tab	For information about the components of the Control tab, see <u>Control Tab</u> below.
Setup Tab	For information about the components of the Setup tab, see <u>Setup Tab</u> below.
Signal Tab	For information about the components of the Signal tab, see <u>Signal Tab</u> below.
OK	Closes the dialog and acquires the specified number of images according to the specified parameters.
Cancel	Closes the dialog without executing the command.

Control Tab

Component	Description
Data Name	Acquired images will be identified with this name and an added sequential number.
Number of Images	Acquired number of images (positive number).
Focus Step	Defocus step between each image (in nm). The closest defocus DAC will be used, so the defocus step may not be exactly the same. The direction of defocus change will be specified by gDefocus Range h parameter in the Setup Tab.
Use A Fixed DAC Step	If checked, a fixed DAC close to the specified defocus step will be used.
Acquisition Focus Offset	Specifies the focus change for a first image from the current focus value.
Delay after Focus Change	Settling time after focus change (in sec)

Setup Tab

Component	Description
Folder	Acquired images will be saved into this folder, when 'Save Image to Disk' is selected. You can browse the folder directory.
Focus Calibration	Specifies a focus change in nm produced by a unit DAC change. This will be automatically specified, when you have Gatan's plug-in to measure this value.
Magnification	Image magnification (This will be read from your microscope, if possible.)
Defocus Range	Defocus range and direction of defocus can be selected from: Underfocus only/Overfocus only/Over to underfocus/Under to overfocus. The current defocus is the start defocus or the middle defocus of the Defocus Range depending on the range selection.
Image Dimensions	Image size(width and hight in pixel).
Pixel Dwell Time	Pixel dwell time (in microseconds)
Image Rotation	Rotation angle of Acquired images.

90 Degree Rotation	If checked, the successive image will be rotated by 90 degrees.
Line Synch	If checked, hardware line synch is applied.
Delay Between Image Acquisition	Settling time between a series of image acquisition (in sec). Some delay time, say 0.2 sec, is required at certain installation.

Signal Tab
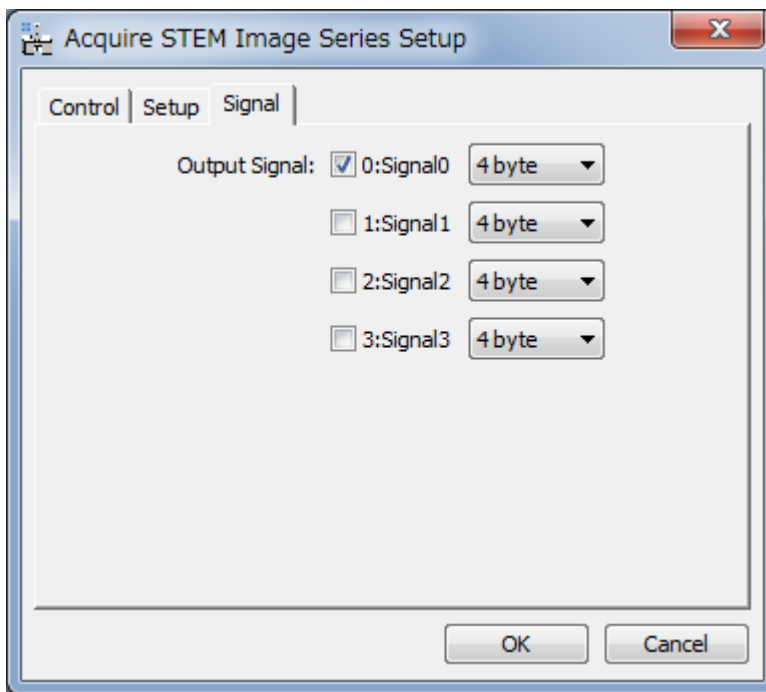
Component	Description
Output Signal	Select signal and data length.