

## Multi Dimensional Acquisition:

### Wavelength Tab

#### Abstract

The Multi Dimensional Acquisition (MDA) dialog box provides tools and options for most multidimensional applications. This note will describe the Wavelength Tab. For further reference see T21125 and T20126.

#### The Wavelength Tab

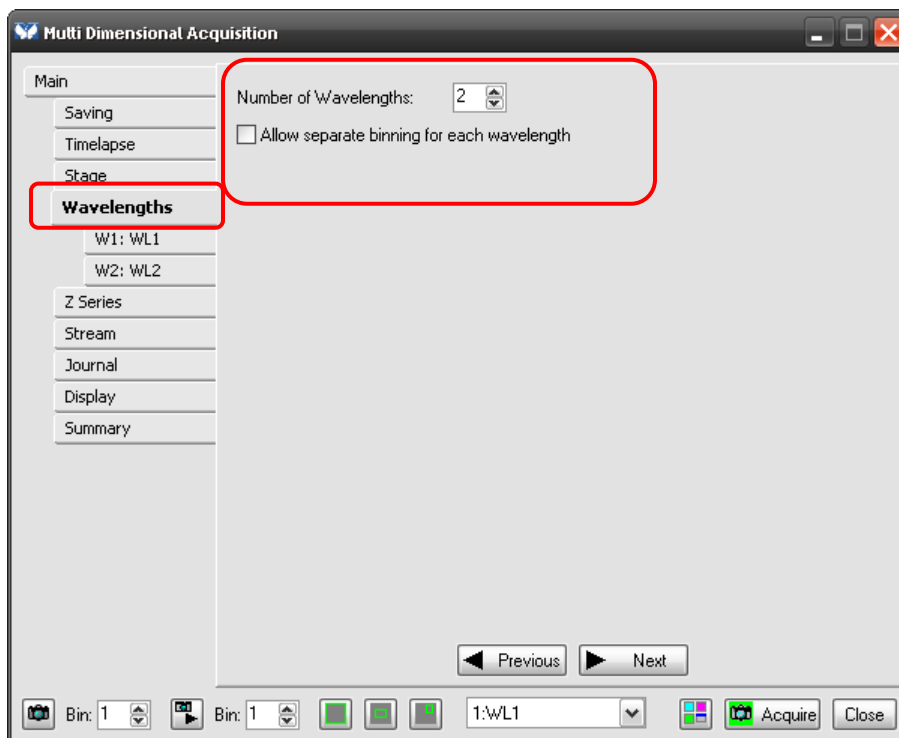
The Wavelength tab is where the wavelengths are chosen and configured for the experiment. This tab will only be displayed if the appropriate hardware is installed and detected by the MetaMorph<sup>®</sup> software.

ARTICLE #T20124

**PRODUCTS**  
MetaMorph<sup>®</sup>  
Version 7.0 or above

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#### Number of Wavelengths

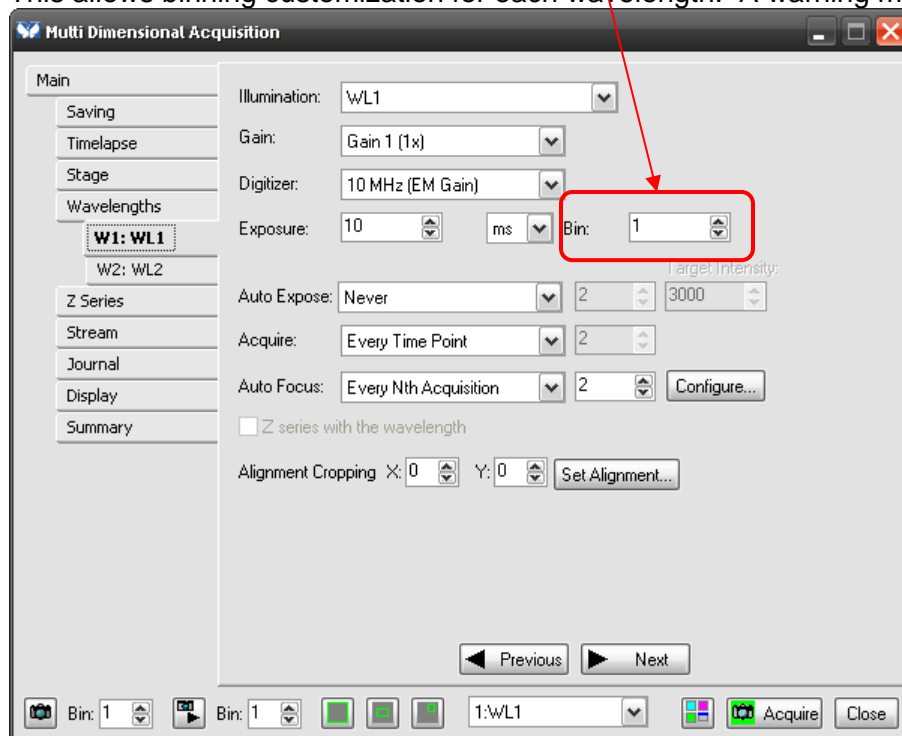
- Specifies the number of different sets of wavelength settings to be used. You can specify a maximum of 8 wavelengths.

Allow separate binning for each wavelength

**This option is only recommended for expert users.**

Images will be acquired at different resolutions that are zoomed to the same calibration before saving.

Using the check box displayed above will add another variable – binning – to each wavelength. This allows binning customization for each wavelength. A warning message will be displayed.



#### Illumination

- Selects the illumination setting to be used for the current wavelength. Illumination settings are defined using the “Configure Illumination” command located in the Devices menu.

#### Gain

- Sets the range of sensitivity and signal strength for the camera.

#### Digitizer

- Sets the range of speed with in which the digitizer will acquire images.

#### Exposure

- Specifies the exposure time in milliseconds. If you are using a video camera, the units will be frames. If you are auto focusing, this value will be the initial exposure attempted for the first auto expose.

#### Auto Expose

- Activates auto exposure and specifies the auto exposure interval. Choose from the following selection of settings:
  - **Every Acquisition** – Auto exposes for all images acquired for the current wavelength.
  - **First time point** – Auto exposes for only the first time point for each stage position.

- **Never** – Turns off Auto Expose.
- **Every Nth Acquisition** – Auto exposes images at the time point interval that you specified in the adjacent box.

#### Target Intensity

- Specifies the intensity value of the gray level you are trying to achieve. This setting is active only when Auto Expose is enabled.

**NOTE:** Auto Expose is inactive in Live mode.

#### Acquire

- Specifies the acquisition interval for the currently selected wavelength. Choose from the following selection of acquisition intervals:

**Every Time Point** – Acquires an image for all time points for the current wavelength as specified by the settings on the Timelapse tab.

**First Time Point** – Acquires an image for the first time point for the current wavelength.

**First and Last Time Point** – Acquires images for the first and last timepoints of the current wavelength.

**Every Nth Time Point** – Acquires images at the time point interval that you specified in the adjacent box.

#### Auto Focus

- Activates auto focus for the currently selected wavelength and specifies the Auto Focus interval.

**Every Acquisition** – Auto focuses for all images acquired for the current wavelength.

**First time point** – Auto focuses for only the first time point for each stage position.

**Never** – Turns off Auto Focus.

**Every Nth Acquisition** – Auto focuses images at the time point interval that you specified in the adjacent box.

#### Configure

- Opens the **MDA: Auto Focus** dialog box. See Technical Note T20125 for details.

#### Do Z Series Z series with the wavelength

- Specifies that the images for the current wavelength are captured and included in the data set as a Z series. This cannot be checked if Auto Focus is chosen.

**NOTE:** You must also select Do Z Series on the Main tab to enable this function.

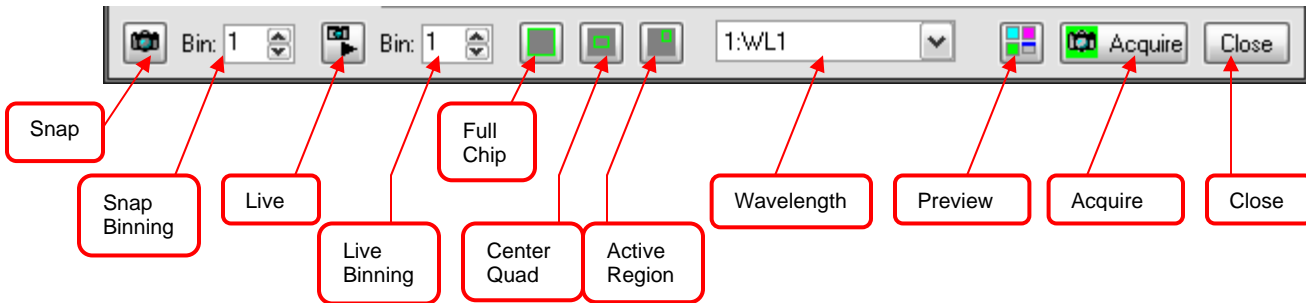
#### Alignment Cropping

- Adjusts the image alignment for the current wavelength, set the X and Y values to which you want your image aligned in the Alignment Cropping group. Or click the *Set Alignment* button to interactively shift pixels in order to align wavelengths.

#### Set Alignment

- Opens the **MDA:Set Alignment** dialog box. Click this button to interactively set the precise alignment of images between two or more different wavelengths. See Technical Note T20126 for details.

Across the bottom of the MDA dialog box are the functions for snapping an image, binning, live, live binning, chip dimensions, wavelength chooser, preview, acquire and close. These options are always available no matter which tab is selected.



If there are any further questions, please contact Technical support at 800-635-5577 x1820 or [support.dtn@moldev.com](mailto:support.dtn@moldev.com).