



# MetaXpress<sup>®</sup> 6 Software Guide

Acquiring a Plate with Timelapse Enabled  
(without Z Series)

Date Revised 6/08/15 Version B



# Chapter Purpose

The purpose of this chapter is to guide the user through setting up a basic Timelapse acquisition with two wavelengths. This includes selecting objectives, plates, wavelengths, focal position, and configuring time points.

Timelapse acquisition should be enabled when the user wants to observe and measure changes over time in a live cell experiment.



# Setting Up a Timelapse Acquisition

## 1. Open Plate Acquisition Setup

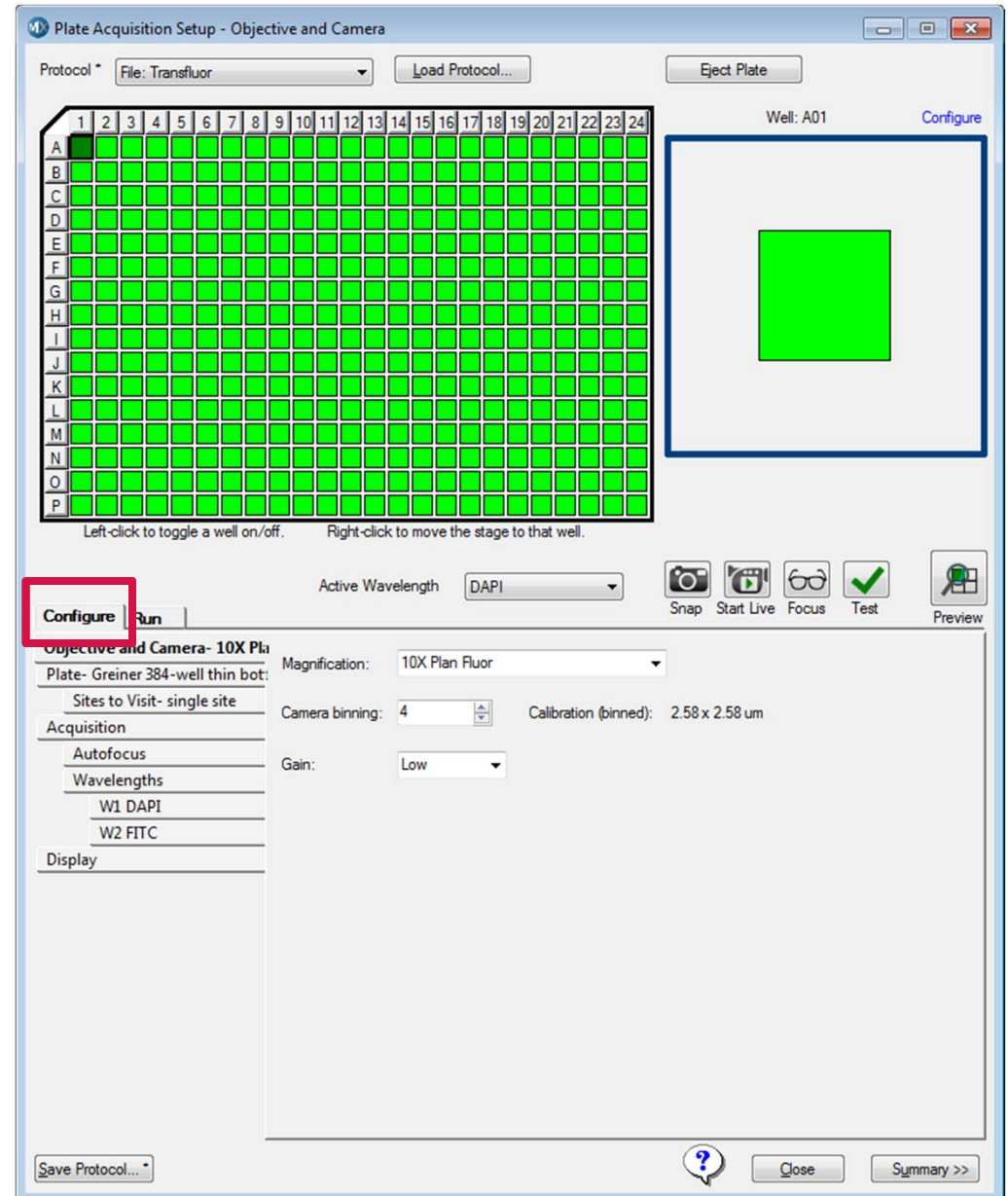
- In the main toolbar click on



OR

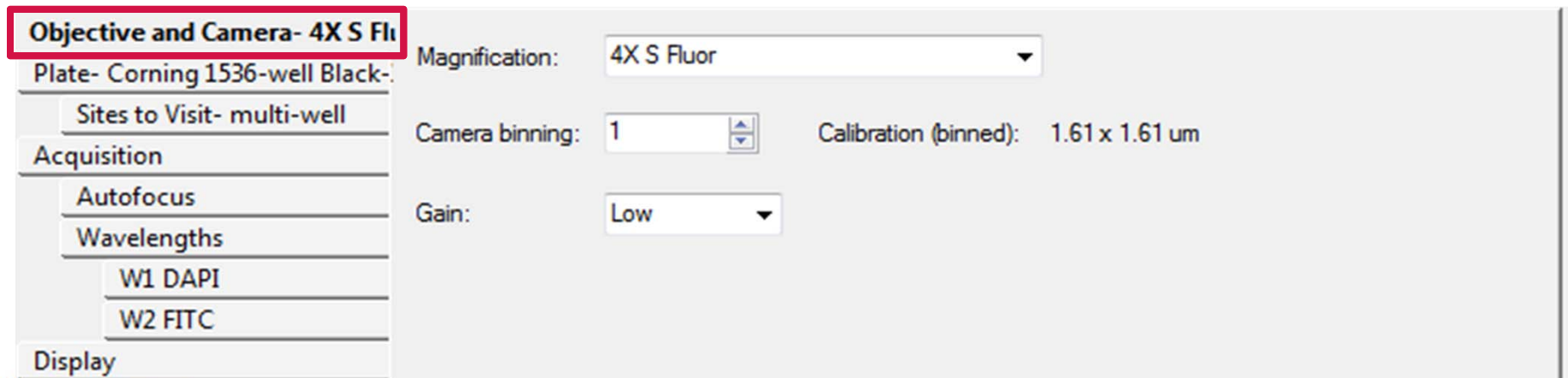
- Under the **Screening** menu, select **Plate Acquisition Setup**

## 2. Select the **Configure** tab



# Setting Up a Timelapse Acquisition

3. Select the **Objective and Camera** tab
4. Select the appropriate **Magnification** from the drop-down menu
  - You may need to adjust the correction collar of the objective; refer to the Main Taskbar to do this.
  - Select **Camera Binning** (refer to next section for guidance)
  - Pixel size is automatically calculated based on magnification and binning
  - Set Camera Binning to **1** to acquire unbinned images – maximum resolution
5. If the **Gain** option appears, start with gain set to **Low**



**Objective and Camera- 4X S Fluor**

Plate- Corning 1536-well Black-  
Sites to Visit- multi-well

Acquisition

Autofocus

Wavelengths

W1 DAPI

W2 FITC

Display

Magnification: 4X S Fluor

Camera binning: 1 Calibration (binned): 1.61 x 1.61 um

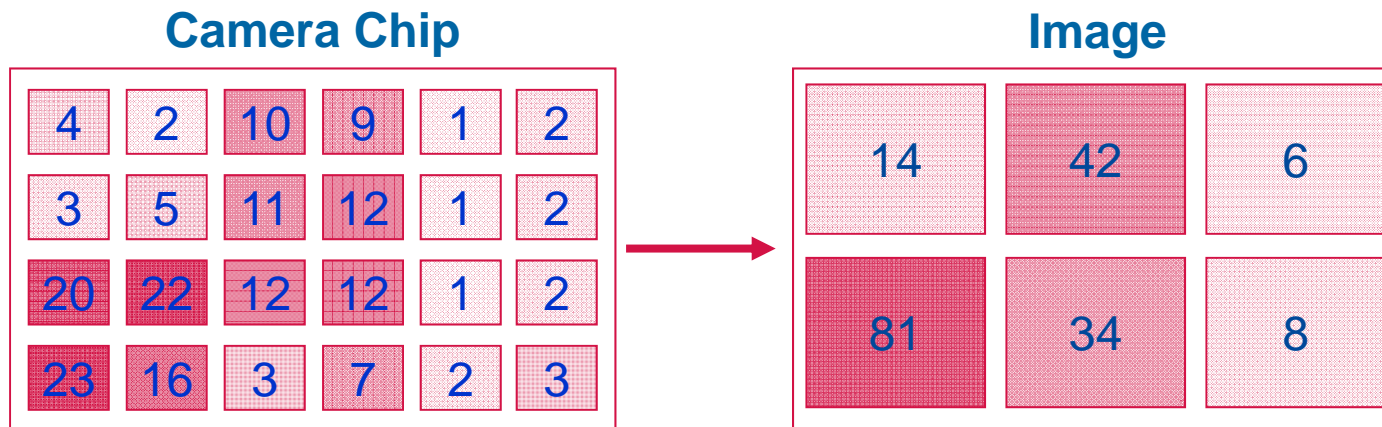
Gain: Low



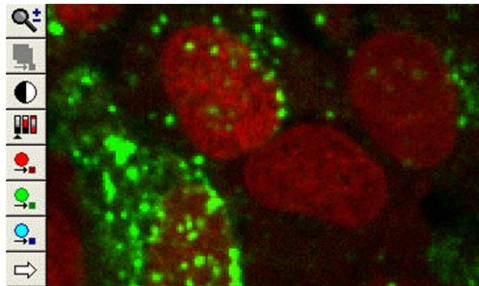
# What is Binning?

Combining groups of pixels into a single pixel during image acquisition

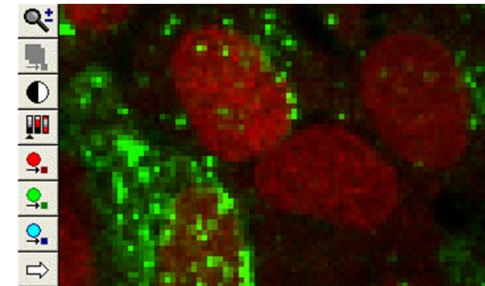
## Example of 2x2 Binning



Each pixel records an intensity



4 Pixels are summed to make one larger pixel



# Why Bin?

## Brighter pixels

- The resultant pixel is brighter than any of the 4 component pixels

## Save Space

- 2x2 binning reduces file size 4-fold

## Increase Speed

- Faster image transfer from MetaXpress to database
- Faster image analysis

## When to Bin

- You do not need to see intricate sub-cellular detail
- Cell counting
- Scoring cells positive or negative for fluorescent markers
- Measuring overall cell intensity



# Setting Up a Timelapse Acquisition

6. Select the **Plate** tab
7. Select the appropriate **Plate Type** from the drop-down menu

Objective and Camera- 4X S Flu  
**Plate- Corning 1536-well Black**

Plate name: **Coming 1536-well Black-3893** Save Configuration...

Sites to Visit- multi-well

Acquisition

Autofocus

Wavelengths

W1 DAPI

W2 FITC

Display

Number of rows: 32

Number of columns: 48

Well shape: Circle

Well diameter ( $\mu\text{m}$ ): 1630

Column spacing ( $\mu\text{m}$ ): 2248

Plate length (mm): 127.8

Column offset ( $\mu\text{m}$ ): 11000

Row spacing ( $\mu\text{m}$ ): 2248

Plate width (mm): 85.5

Row offset ( $\mu\text{m}$ ): 7860

Well depth ( $\mu\text{m}$ ): 4800

Plate height (mm): 10.4

Edit Plate Bottom Settings... Laser Autofocus Wizard...



# Setting Up a Timelapse Acquisition

8. In the plate section, select the wells you would like to acquire
  - Left click and drag mouse to select wells
  - Click on “All” (top left corner), row letters, column numbers, or individual wells
  - Gray wells are deactivated, green wells are activated and will be imaged
  - Right click on a well to move the stage to that position (well turns dark green)

Well: C03 [Configure](#)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A																								
B																								
C			■	■	■	■	■	■	■	■					■	■	■	■	■	■	■	■		
D			■	■	■	■	■	■	■	■					■	■	■	■	■	■	■	■		
E			■	■	■	■	■	■	■	■					■	■	■	■	■	■	■	■		
F			■	■	■	■	■	■	■	■					■	■	■	■	■	■	■	■		
G			■	■	■	■	■	■	■	■					■	■	■	■	■	■	■	■		
H			■	■	■	■	■	■	■	■					■	■	■	■	■	■	■	■		
I			■	■	■	■	■	■	■	■					■	■	■	■	■	■	■	■		
J			■	■	■	■	■	■	■	■					■	■	■	■	■	■	■	■		
K			■	■	■	■	■	■	■	■					■	■	■	■	■	■	■	■		
L			■	■	■	■	■	■	■	■					■	■	■	■	■	■	■	■		
M			■	■	■	■	■	■	■	■					■	■	■	■	■	■	■	■		
N			■	■	■	■	■	■	■	■					■	■	■	■	■	■	■	■		
O																								
P																								

Left-click to toggle a well on/off. Right-click to move the stage to that well.





# Setting Up a Timelapse Acquisition

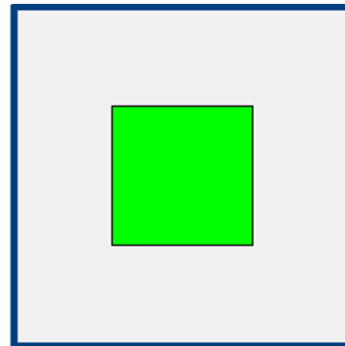
9. Select the **Sites to Visit** tab
  - Select **Single Site** to acquire one site in the middle of the well
  - To acquire a single site elsewhere in the well, refer to the next section on setting up multiple sites

Objective and Camera- 10X Plan  
Plate- Greiner 384-well thin bot:  
**Sites to Visit- single site**  
Acquisition  
Autofocus  
Wavelengths  
W1 DAPI  
W2 FITC  
Display

**Site Options**  
 Single site  
 Fixed number of sites  
 Adaptive acquisition  
 Multi-well  
Acquires a single site centered in each well

Custom field of view (%):  
X: 50 Y: 50  
Site/image size: 1.39 x 1.39 mm

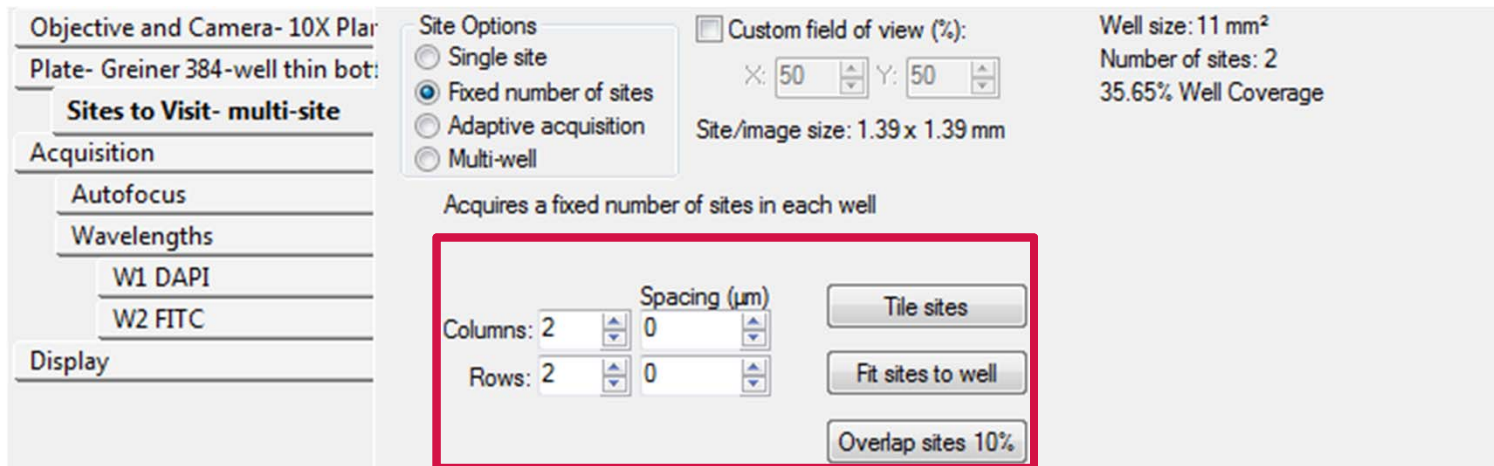
Well size: 11 mm<sup>2</sup>  
Number of sites: 1  
17.82% Well Coverage



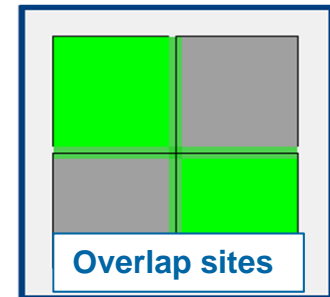
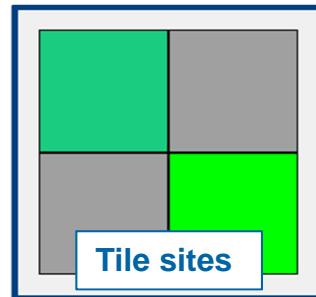
# Setting Up a Timelapse Acquisition

- On the **Sites to Visit** tab
  - Select **Fixed number of sites** to acquire multiple sites
  - Build site grid by specifying number of Columns and Rows
  - Spacing defines the x-y spacing between sites

\*NOTE\* Left clicking on site selects (green) or deselects (gray) for imaging. Right click moves stage to that position (dark green)



- Tile sites** places sites edge to edge
- Fit sites to well** spreads sites to well edge
- Overlap sites 10%** overlaps edges of sites for stitching



# Setting Up a Timelapse Acquisition

9. On the **Sites to Visit** tab
  - Refer to corresponding chapters for more details on the **Adaptive acquisition** and **Multi-well** options

Objective and Camera- 10X Plan  
Plate- Greiner 384-well thin bot:

**Sites to Visit- single site**

Acquisition

Autofocus

Wavelengths

W1 DAPI

W2 FITC

Display

**Site Options**

- Single site
- Fixed number of sites
- Adaptive acquisition
- Multi-well

Acquires a single site centered in each well

Custom field of view (%):

X: 50 Y: 50

Site/image size: 1.39 x 1.39 mm

Well size: 11 mm<sup>2</sup>  
Number of sites: 1  
17.82% Well Coverage



# Setting Up a Timelapse Acquisition

## 10. Select the **Acquisition** tab

- Always **Enable laser-based focusing**
- For certain samples it may be necessary to **Enable mage based focusing**
- Enable **Acquire Time Series**
- Optionally, enable **Perform shading correction**

\*NOTE\* Some of the choices shown may not appear in your version of MetaXpress

Objective and Camera- 10X Plar  
Plate- Greiner 384-well thin bot:  
Sites to Visit- multi-site

**Acquisition**

Autofocus  
Wavelengths  
W1 DAPI  
W2 FITC  
Timelapse- 1 time points  
Display

Autofocus options

- Enable laser-based focusing
- Enable image-based focusing (for acquisition or laser recovery)

Acquisition options

- Acquire Time Series
- Acquire Z Series
- Use Fluidics
- Run Journals During Acquisition
- Analyze Images After Acquisition

Perform shading correction    Directory...    C:\Shading Images



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# Setting Up a Timelapse Acquisition

## 11. Select the **Timelapse** tab

- From the drop-down menu, select an option to **Perform time series for:**
  - One well then the next** for fast kinetic time lapse in a single well (or site). All time points will be collected in one well before moving to the next well.
  - All selected wells** for long-term time lapse experiments. All wells are acquired during each time point.
  - One row then the next** or **One column then the next** for specialized cases (most common for fluidics experiments).

The screenshot shows the software interface for setting up a timelapse acquisition. On the left, there is a sidebar with several tabs: 'Objective and Camera- 10X Plan', 'Plate- Greiner 384-well thin bot:', 'Sites to Visit- multi-site', 'Acquisition', 'Autofocus', 'Wavelengths', 'W1 DAPI', 'W2 FITC', 'Timelapse- 2 time points', and 'Display'. The 'Timelapse- 2 time points' tab is selected. The main panel shows the following settings: 'Number of timepoints:' is set to 2; 'Perform time series for:' is set to 'One well then the next' (the dropdown menu is open, showing options: 'One well then the next', 'One well then the next', 'One row then the next', 'One column then the next', and 'All selected wells'); 'Approximate minimum interval:' is set to 10; 'Duration:' is set to 10 seconds. The 'Perform time series for:' dropdown menu is highlighted with a red box.



# Setting Up a Timelapse Acquisition

## 11. On the **Timelapse** tab

- Enter the **Number of timepoints**
- Set the **Interval**: time between each image taken (ms, sec, min, or hr)
- Set the **Duration**: total time of experiment (ms, sec, min, or hr). This is equivalent to Interval x Number of timepoints

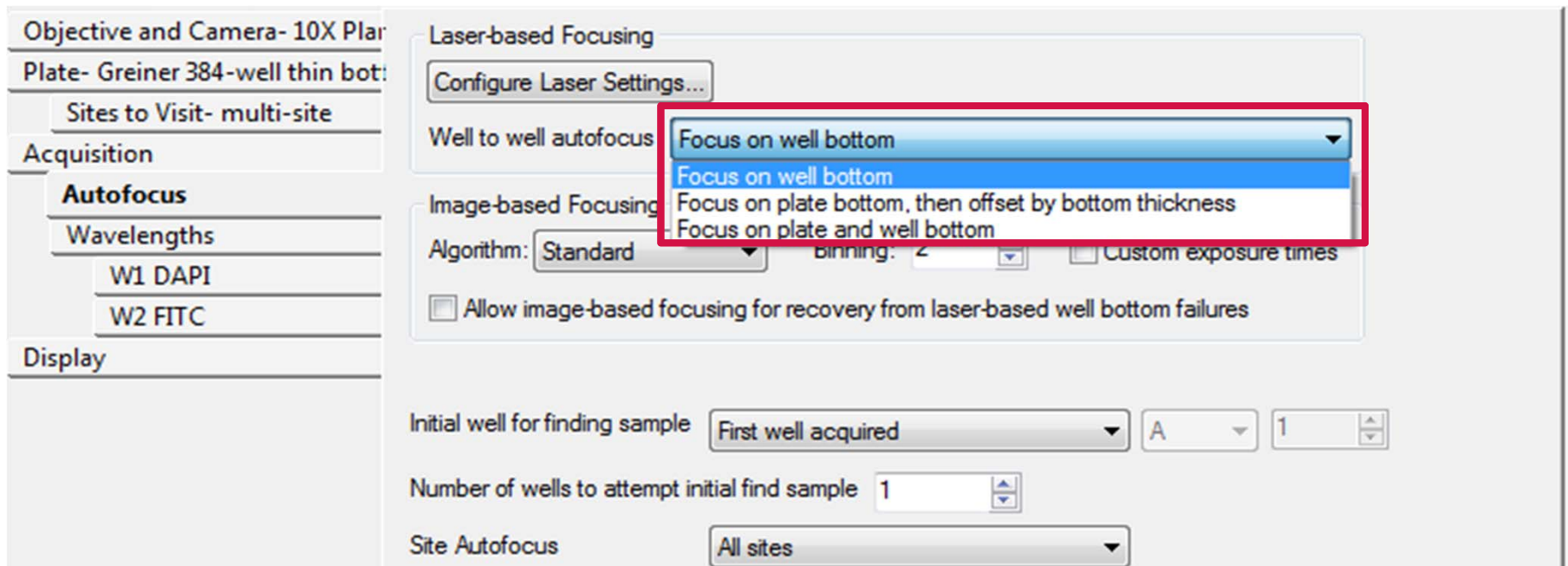
Objective and Camera- 10X Plan	Number of timepoints: 2
Plate- Greiner 384-well thin bot:	Perform time series for: One well then the next
Sites to Visit- multi-site	Approximate minimum time interval: 2.6 sec
Acquisition	Interval: 10 sec
Autofocus	Duration: 10 sec
Wavelengths	
W1 DAPI	
W2 FITC	
<b>Timelapse- 2 time points</b>	
Display	



# Setting Up a Timelapse Acquisition

## 12. Select the **Autofocus** tab

- Select the appropriate option from the **Well to well autofocus** drop-down menu:
  - **Focus on well bottom:** most scenarios using a 10X and higher objective
  - **Focus on plate bottom then offset by bottom thickness:** for low magnification objectives (2X, 4X), thin plates, or microscope slide/coverslip.
  - **Focus on plate and well bottom:** for warped plates (plate bottom variation is more than half the optical thickness)



The screenshot displays the software configuration window for a timelapse acquisition. On the left, a sidebar contains several tabs: 'Objective and Camera- 10X Plan', 'Plate- Greiner 384-well thin bot:', 'Sites to Visit- multi-site', 'Acquisition', 'Autofocus' (which is currently selected), 'Wavelengths', and 'Display'. Under the 'Autofocus' tab, there are sub-sections for 'W1 DAPI' and 'W2 FITC'. The main configuration area is divided into 'Laser-based Focusing' and 'Image-based Focusing'. In the 'Laser-based Focusing' section, the 'Well to well autofocus' dropdown menu is open, showing three options: 'Focus on well bottom' (selected), 'Focus on plate bottom, then offset by bottom thickness', and 'Focus on plate and well bottom'. Below this, there are settings for 'Algorithm: Standard', 'Binning: 2', and a checkbox for 'Custom exposure times'. In the 'Image-based Focusing' section, there is a checkbox for 'Allow image-based focusing for recovery from laser-based well bottom failures'. At the bottom of the window, there are three input fields: 'Initial well for finding sample' set to 'First well acquired', 'Number of wells to attempt initial find sample' set to '1', and 'Site Autofocus' set to 'All sites'.



# Setting Up a Timelapse Acquisition

## 12. On the **Autofocus** tab

- Set **Initial well for finding sample** to **First well acquired**
  - This serves as a check to verify a plate is loaded
  - Only disable for very specific applications (i.e., oil immersion objectives)
- Set **Number of wells to attempt initial find sample** to **3**

The screenshot shows the software interface for setting up a timelapse acquisition. On the left, a sidebar contains navigation options: Objective and Camera- 4X SF, Plate- 384 Wells (16x24), Sites to Visit- multi-site, Acquisition, Autofocus (selected), Wavelengths, W1 DAPI, W2 FITC, and Display. The main panel is titled 'Autofocus' and contains several sections: 'Laser-based Focusing' with a 'Configure Laser Settings...' button and a 'Well to well autofocus' dropdown set to 'Focus on well bottom'; 'Image-based Focusing' with an 'Algorithm' dropdown set to 'Standard', a 'Binning' spinner set to 2, a 'Custom exposure times' checkbox, and an unchecked checkbox for 'Allow image-based focusing for recovery from laser-based well bottom failures'; and a section highlighted with a red box containing 'Initial well for finding sample' (dropdown set to 'First well acquired', column dropdown set to 'A', and row spinner set to 1) and 'Number of wells to attempt initial find sample' (spinner set to 3). At the bottom, 'Site Autofocus' is set to 'All sites'.

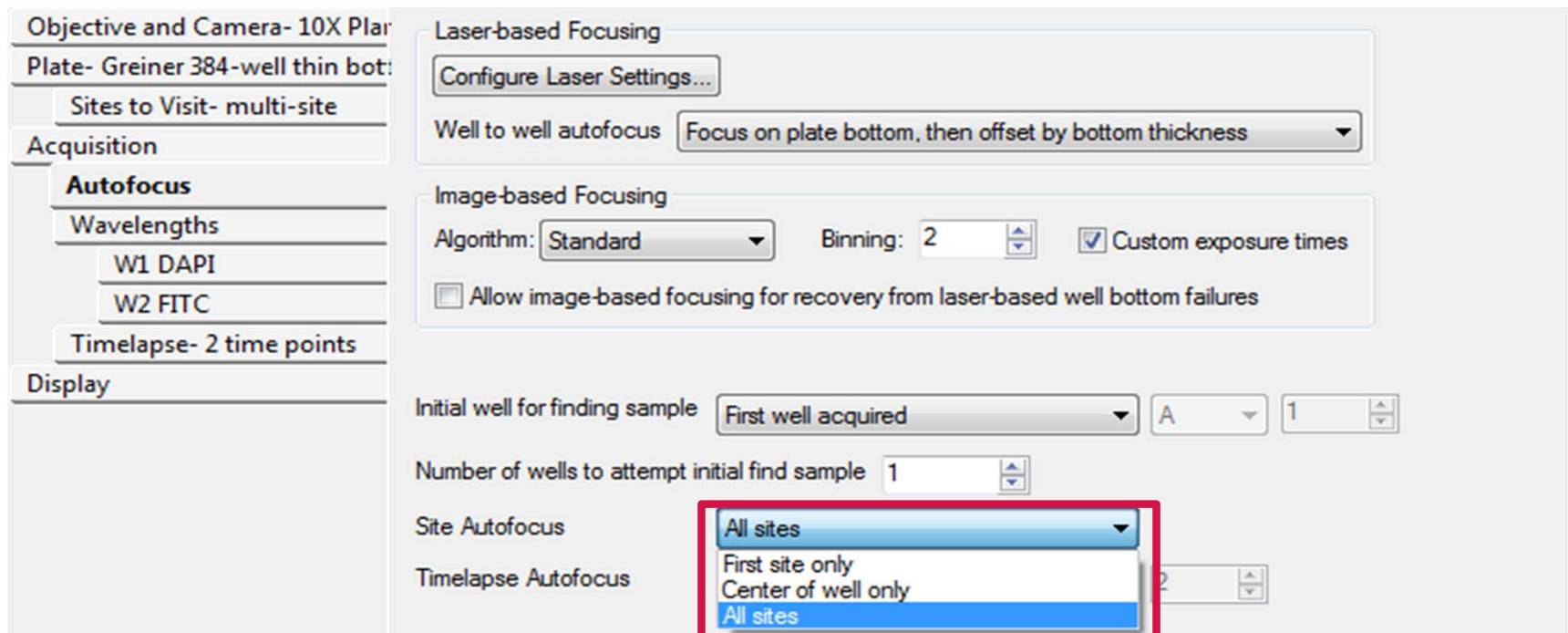




# Setting Up a Timelapse Acquisition

## 12. On the **Autofocus** tab

- Select the appropriate option for **Site Autofocus** from the drop down menu
  - Select **First site only** or **Center of well only** for faster acquisition at lower magnification or with high quality, flat plates.
  - Select **All sites** for greater focusing accuracy (recommended).



The screenshot shows the software interface for setting up a timelapse acquisition. The left sidebar has the following menu items: Objective and Camera- 10X Plan, Plate- Greiner 384-well thin bot, Sites to Visit- multi-site, Acquisition, **Autofocus**, Wavelengths, W1 DAPI, W2 FITC, Timelapse- 2 time points, and Display. The main panel is divided into sections: Laser-based Focusing (with a 'Configure Laser Settings...' button and a 'Well to well autofocus' dropdown set to 'Focus on plate bottom, then offset by bottom thickness'), Image-based Focusing (with 'Algorithm' set to 'Standard', 'Binning' set to '2', and 'Custom exposure times' checked), and 'Initial well for finding sample' (set to 'First well acquired', 'A', and '1'). The 'Site Autofocus' dropdown menu is open, showing options: 'All sites', 'First site only', 'Center of well only', and 'All sites'. The 'All sites' option is highlighted. The 'Timelapse Autofocus' dropdown is set to '2'.



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# Setting Up a Timelapse Acquisition

## 12. On the **Autofocus** tab

- Select the appropriate option for **Timelapse Autofocus** from the drop down menu:
  - **First timepoint only** for fast kinetic time lapse in a single well (i.e., the stage does not move between time points. Use this setting when selecting One well then the next on the Timelapse tab
  - **All timepoints** for long-term time lapse where the stage moves from well to well between time points. Use this setting when selecting All selected wells on the Timelapse tab
  - **Every Nth timepoint** for slower or longer kinetic experiments in a single well to periodically verify focal position. This setting is recommended when selecting One well then the next on the Timelapse tab

Initial well for finding sample: First well acquired | A | 1

Number of wells to attempt initial find sample: 1

Site Autofocus: All sites

Timelapse Autofocus: First timepoint only | 2

- First timepoint only
- All timepoints
- Every Nth timepoint



# Setting Up a Timelapse Acquisition

## 13. Select the **Wavelengths** tab

- Enter the number of wavelengths or channels that you will acquire on this plate
  - A separate **W** tab will appear below for each channel
  - You can enter up to 8 wavelengths

Objective and Camera- 10X Plat	Number of wavelengths: <input type="text" value="2"/>
Plate- Greiner 384-well thin bot:	
Sites to Visit- multi-site	
Acquisition	
Autofocus	
<b>Wavelengths</b>	
W1 DAPI	
W2 FITC	
Display	



# Setting Up a Timelapse Acquisition

## 14. Select the **W1** tab

- Select the desired **Illumination Setting** from the drop-down menu
- In the plate Map, right-click to select a site/well that should contain the highest signal for the wavelength chosen

The screenshot displays the software interface for setting up a timelapse acquisition. On the left, a sidebar contains several tabs: 'Objective and Camera- 10X Plan', 'Plate- Greiner 384-well thin bot:', 'Sites to Visit- multi-site', 'Acquisition', 'Autofocus', 'Wavelengths', 'W1 DAPI', 'W2 FITC', and 'Display'. The 'W1 DAPI' tab is currently selected. The main panel shows the following settings:

- Illumination setting:** DAPI (highlighted with a red box)
- Exposure (ms):** 50
- Auto Expose:** (button)
- Target max intensity:** 33000
- Autofocus options:**
  - Laser with z-offset:** (dropdown menu)
  - Post-laser offset (um):** 12.36
- Calculate Offset:** (button)
- Use Z stack:** (checked checkbox)
- Custom Range:** (unchecked checkbox)
- Range (um):** 138.89
- Step (um):** 5.56



# Setting Up a Timelapse Acquisition

14. On the **W1** tab

- Click on the **Calculate offset** button to perform an automatic routine for finding the best focal position (post-laser offset value)
  - Enable **Use Z Stack** for an interactive option to select the focus position. The software will acquire a Z stack of images and allow you to select the most in-focus image.
  - Enable **Custom Range** to specify a custom range and step size for the focus search

Objective and Camera- 10X Plan  
Plate- Greiner 384-well thin bot

Sites to Visit- multi-site

Acquisition

Autofocus

Wavelengths

**W1 DAPI**

W2 FITC

Display

Illumination setting: DAPI

Exposure (ms): 50 Auto Expose Target max intensity: 33000

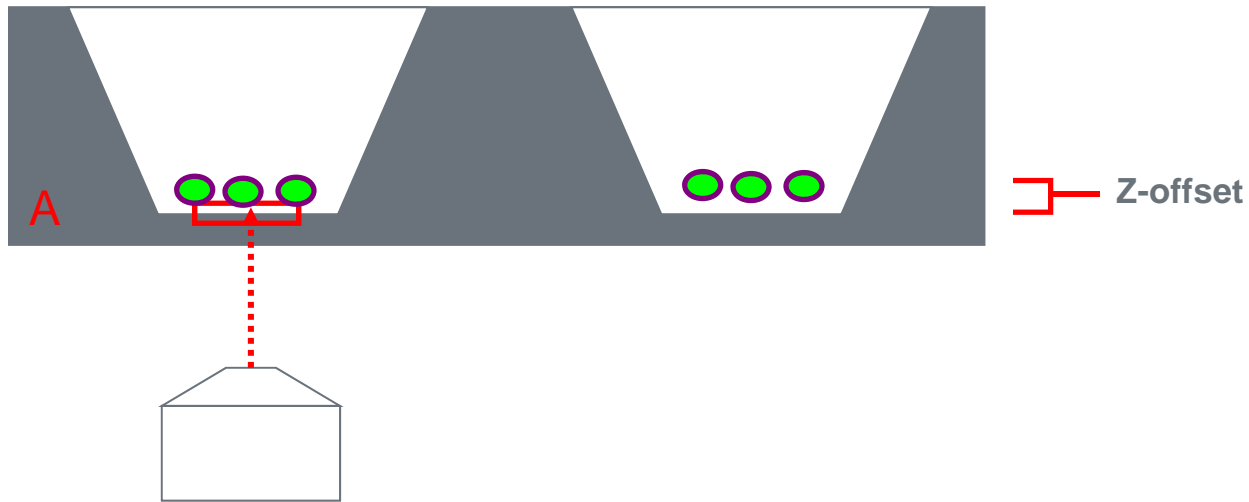
Autofocus options

Post-laser offset (um)

Laser with z-offset 12.36

Calculate Offset <  Use Z stack  Custom Range Range (um) 138.89 Step (um) 5.56

# What is a Post- Laser Offset?




Post-laser offset is the Z distance between the bottom of the well and the sample

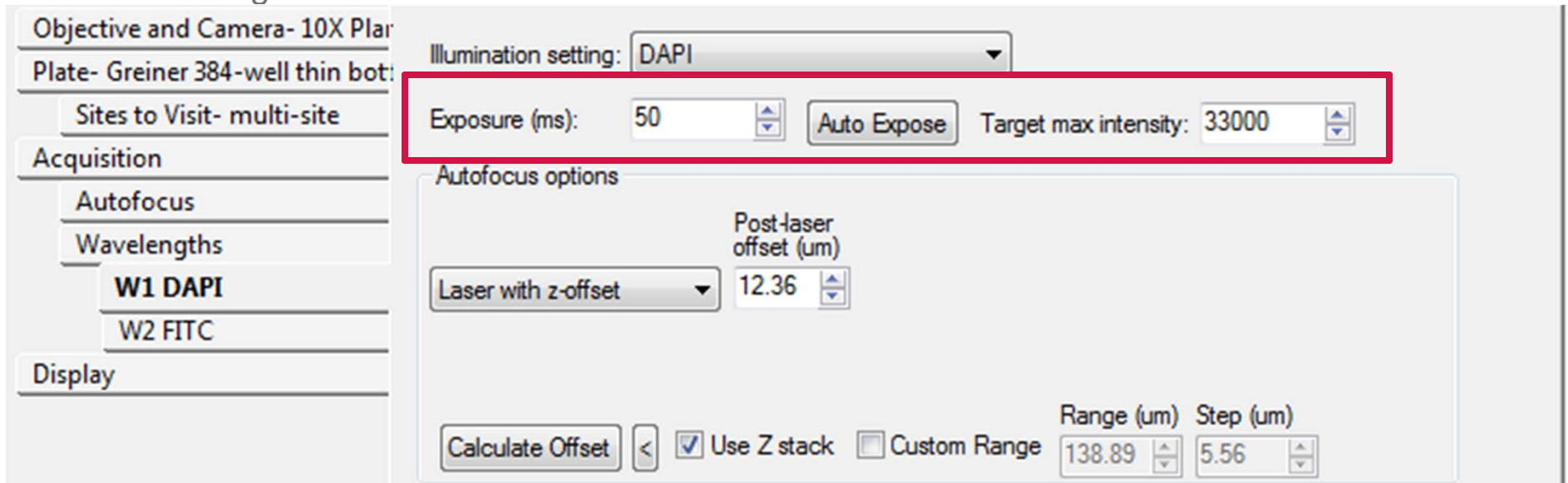
- Laser autofocus routine finds the well bottom, NOT the biological sample of interest
- You may need to empirically determine the offset (or distance) between the well bottom and the sample
- Very wavelength dependent (chromatic aberration)
- Offset can be positive or negative
- Molecular Devices recommends checking multiple wells for consistency



# Setting Up a Timelapse Acquisition

## 14. On the **W1** tab

- Enter an **Exposure** (ms) time and click on the **Focus** button 
  - Evaluate the image for pixel intensity (bit range)
  - Optionally, click on the **Auto Expose** button to determine exposure automatically (i.e. avoid saturation or very dim signal)
  - Set **Target max intensity** between 33000-45000 for a 16 bit camera (3000-3500 for 12 bit camera). The auto expose routine will attempt to attain this value for the brightest pixel in the image.
  - Molecular Devices recommends checking exposure times for both positive and negative control wells



Objective and Camera- 10X Plan  
Plate- Greiner 384-well thin bot  
Sites to Visit- multi-site  
Acquisition  
Autofocus  
Wavelengths  
**W1 DAPI**  
W2 FITC  
Display

Illumination setting: DAPI

Exposure (ms): 50  Target max intensity: 33000

Autofocus options

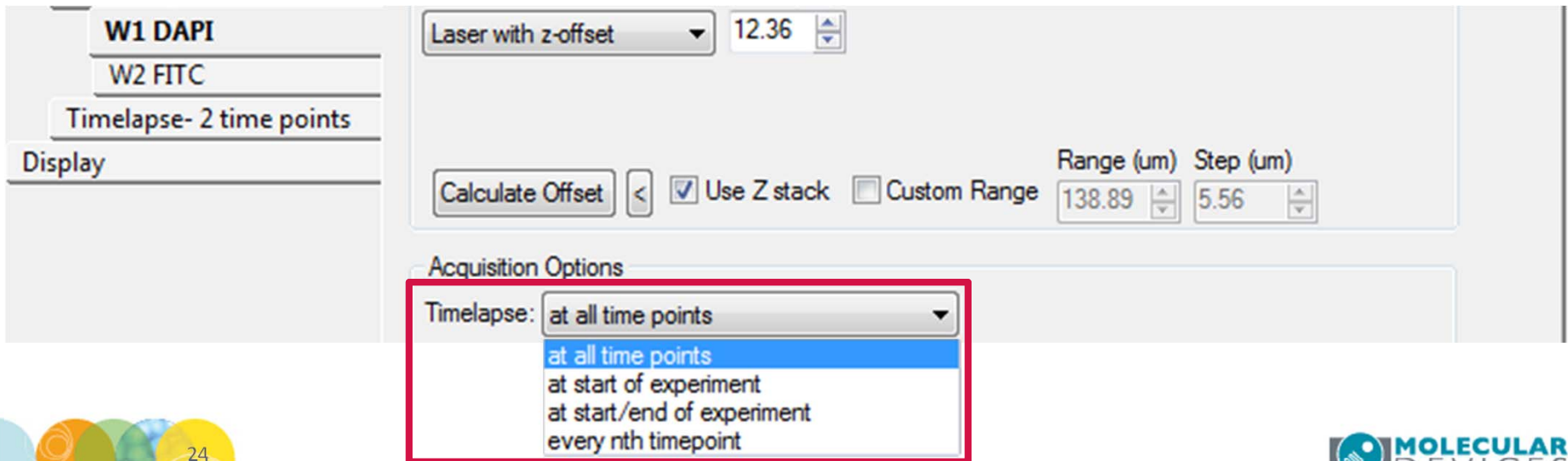
Laser with z-offset  12.36

Use Z stack  Custom Range Range (um) Step (um)  
138.89 5.56

# Setting Up a Timelapse Acquisition

## 14. On the **W1** tab

- Select the appropriate option from the **Acquisition Options** drop-down menu to specify how often to collect the selected wavelength
  - **At all time points** acquires this wavelength at each time point
  - **At start of experiment** acquires this wavelength only at time point 1
  - **At start/end of experiment** acquires this wavelength at only the first and last time points
  - **Every nth time point** acquires this wavelength every nth time point (2nd, 5th, 6th, etc.) throughout the time lapse experiment



The screenshot displays the software interface for setting up a timelapse acquisition. On the left, a sidebar shows the 'W1 DAPI' tab selected, with other options like 'W2 FITC', 'Timelapse- 2 time points', and 'Display' visible. The main panel shows a 'Laser with z-offset' dropdown set to '12.36'. Below this, there are controls for 'Calculate Offset', 'Use Z stack' (checked), and 'Custom Range' (unchecked). The 'Range (um)' is set to 138.89 and the 'Step (um)' is 5.56. The 'Acquisition Options' section is highlighted with a red box, showing a dropdown menu for 'Timelapse:' with the following options: 'at all time points' (selected), 'at start of experiment', 'at start/end of experiment', and 'every nth timepoint'.





# Setting Up a Timelapse Acquisition

15. Select the **W2** tab (and subsequent W tabs)
  - Select the desired **Illumination Setting** from the drop-down menu
  - In the plate Map, right-click to select a site/well that should contain the highest signal for the wavelength chosen
  - Calculate **Focus offset**
  - Determine **Exposure** time
  - Select the appropriate acquisition options from the **Timelapse** drop-down menu

The screenshot shows the software interface for setting up a timelapse acquisition. On the left is a navigation pane with the following sections and items:

- Objective and Camera- 10X Plan
- Plate- Greiner 384-well thin bot:
- Sites to Visit- multi-site
- Acquisition
  - Autofocus
  - Wavelengths
    - W1 DAPI
    - W2 FITC**
  - Timelapse- 2 time points
- Display

The main configuration area on the right includes the following settings:

- Illumination setting: FITC
- Exposure (ms): 100 (with an Auto Expose button)
- Target max intensity: 33000
- Autofocus options
  - Z-offset from W1: 2.76 (um)
  - Buttons: Calculate Offset, Use Z stack (checked), Custom Range
  - Range (um): 138.89
  - Step (um): 5.56
- Acquisition Options
  - Timelapse: at all time points



# Setting Up a Timelapse Acquisition

16. Select the **Display** tab to configure:

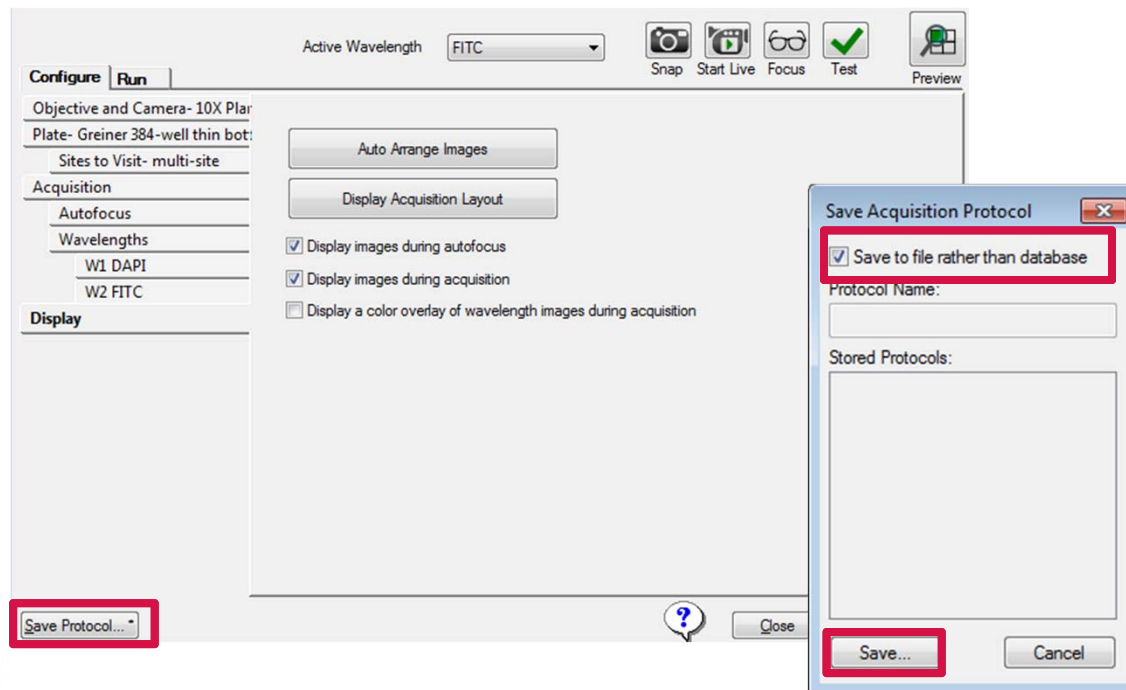
- **Auto Arrange Images:** Software automatically determines the arrangement and size of images shown during acquisition.
- **Click on Display Acquisition Layout:** Manually configure how the images will look during acquisition (position, size, scaling, monochrome or color).
- **Display images during autofocus** should be checked to help with finding post-laser offset.
- **Display images during acquisition** displays images according to the settings determined using Auto Arrange Images or Display Acquisition Layout.
- **Display a color overlay of wavelength images during acquisition:** Will create a color composite of the first 3 wavelengths selected.

The screenshot shows a software interface with a sidebar on the left and a main panel on the right. The sidebar has several tabs: 'Objective and Camera- 10X Plan', 'Plate- Greiner 384-well thin bot:', 'Sites to Visit- multi-site', 'Acquisition', 'Autofocus', 'Wavelengths', 'W1 DAPI', 'W2 FITC', and 'Display'. The 'Display' tab is selected. The main panel contains two buttons: 'Auto Arrange Images' and 'Display Acquisition Layout'. Below these buttons are three checkboxes: 'Display images during autofocus' (checked), 'Display images during acquisition' (checked), and 'Display a color overlay of wavelength images during acquisition' (unchecked).



# Setting Up a Timelapse Acquisition

17. Click on the **Save Protocol** button at the bottom of the **Plate Acquisition Setup** dialog
  - A star on the **Save Protocol** button indicates there are unsaved changes to the protocol
  - Molecular Devices recommends saving settings to a file rather than the database
  - Click on the **Save** button, name the protocol, and navigate through windows to save the file (.hts)



# Setting Up a Timelapse Acquisition

18. Select the **Run** tab and enter:

- **Folder Name:** folder your plates go in in the database (i.e. project or PI)
- **Plate Name:** the name of the plate to be imaged (i.e. specific experiment)
- **Barcode** (optional): manually enter the plate barcode
- **Storage Location:** select where you want images to be stored (there may only be one choice)
- **Description:** enter any identifying information you would like to store with the plate

Active Wavelength: FITC

Buttons: Snap, Start Live, Focus, Test, Preview

Configure | **Run**

Folder Name: Transfluo | Barcode: | Description: Transfluo plate

Plate Name: Transfluo 10x | Storage Location: Local File Server

Acquire Plate

	Exposure Time (ms)	Snap	Test	Focus Offset ( $\mu\text{m}$ )
DAPI	Auto Expose 50			Calculate 12.36
FITC	Auto Expose 400			Calculate 2.76

# Setting Up a Timelapse Acquisition

19. Click on the **Acquire Plate** button to begin acquisition of the plate

The screenshot shows the software interface for setting up a timelapse acquisition. The 'Run' tab is active, and the 'Acquire Plate' button is highlighted with a red box. The interface includes the following elements:

- Active Wavelength:** FITC
- Buttons:** Snap, Start Live, Focus, Test, Preview
- Folder Name:** Transfluo
- Barcode:** (empty)
- Plate Name:** Transfluo 10x
- Description:** Transfluo plate
- Storage Location:** Local File Server
- Exposure Time (ms):**
  - DAPI: Auto Expose, 50
  - FITC: Auto Expose, 400
- Snap:** (camera icon)
- Test:** (checkmark icon)
- Focus Offset ( $\mu\text{m}$ ):**
  - DAPI: Calculate, 12.36
  - FITC: Calculate, 2.76



# Support Resources

- F1 / HELP within MetaXpress® Software
- Support and Knowledge Base: <http://mdc.custhelp.com/>
- User Forum: <http://metamorph.moleculardevices.com/forum/>
- Request Support: <http://mdc.custhelp.com/app/ask>
- Technical Support can also be reached by telephone:
  - 1 (800) 635-5577
  - Select options for Tech Support → Cellular Imaging Products → ImageXpress Instruments





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