

## **MetaXpress® 6 Software Guide**

Setting Up Microscope Slides as a Micro-well Plate

UNLEASH YOUR BRILLIANCE

Date Revised 07/14/15 Version B

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The purpose of this chapter is to guide the user in setting up microscope slide dimensions as a micro-well plate which can then be selected in **Plate Acquisition Setup**.

Microscope slides that have regularly spaced features (i.e. multiple cover slips, chambers, etc.) are best setup through this method.

For irregularly spaced features (tissue slices, TMA, etc.), refer to the chapter on **Setting up Microscope Slides with Regions**.





#### Slide Scanning: Two Workflows







For this procedure, it is recommended to have a ruler with millimeter (mm) dimensions ready.

- 1. In the MetaXpress software, make sure the **IXM Taskbar** is loaded and click on **Run a Plate**
- 2. Click on Set up Slide Dimensions
- 3. Place the microscope slide(s) into the slide holder (single slide holder or 3-slide holder)
- 4. <u>Do Not</u> load the slide holder into the system yet.









- Enter a name for the microscope slide setup. This name will appear on the Plate tab in the drop-down menu.
- 6. Click **OK**
- 7. Select the appropriate microscope slide holder and click **OK**

Enter name	(special characters will be removed)
String:	My Slide
	OK Canad

Select holder u	sed for this slide
Single Slide	Holder
Three-Slide	Holder: Slide 1
Three-Slide	Holder: Slide 2
Three-Slide	Holder: Slide 3
Three-Slide	Holder: All Slide:
ок	Cancel





- 8. Select the appropriate **Slide Orientation**
- 9. Refer to the illustration for details
- 10. Click OK

Set Slide Thickness
Select the slide orientation (see illustration):
<ul> <li>Coverslip down (0.17 mm)</li> <li>Coverslip up (1.0 mm)</li> <li>No coverslip - sample down (0 mm)</li> <li>No coverslip - sample up (1.0 mm)</li> <li>Other</li> </ul>
OK Cancel







- Next you will enter the details of the features on the microscope slide(s).
   For example: number of coverslips or chambers. Refer to the illustration for guidance on selecting choices.
- 12. Enter the number of **Columns** and click **OK**
- Enter the number of Rows and click
   OK
- 14. Select the appropriate **Well shape.** This shape should be reflective of the feature (i.e. cover slip maybe round or square).





- 15. The next steps will require physical measurements of the features on the microscope slide.
- 16. Select the appropriate **method for measuring positions**. Molecular Devices recommends using a mm ruler and selecting **Measure with ruler in mm**
- 17. If a ruler is not available, measurements can be made inside the instrument. However, this method can be less accurate. Click **OK**.









- 18. Use the rule to measure the Column and Row Offset in mm
  - Column Offset: distance from left side of holder to center of A1 (first feature)
  - Row Offset: distance from the top side of holder to center of A1

Column Offse	t	×
Enter Column	Offset in	n mm:
Number:	54	×
ОК		Cancel







- 19. Next, measure the distances between multiple features on the microscope slide(s). Refer to the illustration for guidance.
  - Distance in mm from first to last column
  - Distance in mm from first to last row

Enter dis	tance in m	nm from t	irst to l	ast col	umn:
	Number:	40		÷	
	ОК		Canc	el	
					1
					А ————————————————————————————————————
easure	Row Spa	cing		X	
easure	Row Spa	cing		X	
easure Inter dis	Row Spar tance in m	cing nm from f	irst to li	ast row	s

Cancel

OK







20. Measure the well diameter in mm and click OK









- 21. The **Plate File Created** dialog will now appear. The new plate can be found in C:\MX6\Plates.
- 22. Next, laser autofocus settings will need to be created for each of the objectives. Click **Continue** and follow the prompts. Refer to the corresponding chapter on Laser Autofocus for Microscope Slides.



\*NOTE\* Do not use the Laser Autofocus Wizard in Plate Acquisition Setup on the Plate tab. Only use the Slide Laser Autofocus Wizard on the IXM Taskbar.





- 23. If the **Plate Acquisitions Setup** dialog box is already open, close and reopen to see the new plate file
- 24. Open Plate Acquisition Setup, select the Configure tab, then the Autofocus tab
  - Set Well to well autofocus to Focus on plate bottom, then offset by bottom thickness
  - Set up acquisition of the microscope slide similar to a micro-well plate (refer to corresponding chapters on acquisition setup guidance)

Objective and Camera- 10X PF Plate- 3-Slide Holder -slides in c	Laser-based Focusing Configure Laser Settings				
Sites to Visit- single site	Well to well autofocus Focus on plate bottom, then offset by bottom thickness				
Autofocus	Image-based Focusing				
Wavelengths	Algorithm: Standard Rinning: 2 A Custom owners times				
WI DAPI					
WI DAFI					





#### Support Resources

- F1 / HELP within MetaXpress® Software
- Support and Knowledge Base: <u>http://mdc.custhelp.com/</u>
- User Forum: <u>http://metamorph.moleculardevices.com/forum/</u>
- Request Support: <u>http://mdc.custhelp.com/app/ask</u>
- 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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