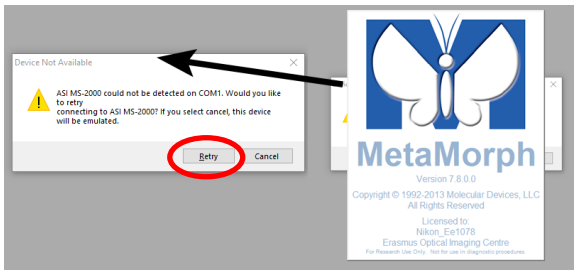
Start-up system

- Switch on the power socket (#1)
- Switch on Mercury lamp control unit switch on and ignite (#2)
  - Wait ~10 seconds for the device to load
  - Hold ignite button until orange LED is active
- **Start the PC before other hardware is active**
  - User account Nikon1078, no password required
- Switch on the power socket (#3)
- Switch devices on in the order of:
  - Halogen lamp
  - Incubator control-box
  - Microscope stand located at the right, behind the serial plug
  - Stage controller located at the back of the device
  - Shutter controller
- Start imaging software Metamorph
  - Select "User" account
- Upon error; drag error message from behind Metamorph logo
  - Message: *ASI MS2000 not detected on COM1*
  - Choose: *Retry*



Shut down system

- For live cell imaging:
  - Remove Tokai Hit incubator from the stage and place it on the table
  - Close the Tokai Hit incubator with a plastic well
- **Clean objective carefully**
  - Remove oil with lens paper:
  - Hold lens paper tight between your fingers and wipe over objective
  - Wet your lens paper with 2-propanol and wipe 3-4 times more
- Cover stage with lens paper cleaning box

- **If you are the last user of the day**
- Shut down all devices
  - Shut down Mercury lamp at last
  - Camera power is switched at the adapter box at the floor
- Switch off the power socket located at the floor

Controlling intensity mercury lamp

- Fluorescence can be detected with use of the Mercury lamp
  - Choose illumination settings according to your sample
- Intensity of the light can be controlled with neutral density (ND) filters.
  - Located between the actual lamp (right) and the microscope stand.
  - Press inwards to reduce intensity by 4 or 8 times (ND4, ND8)

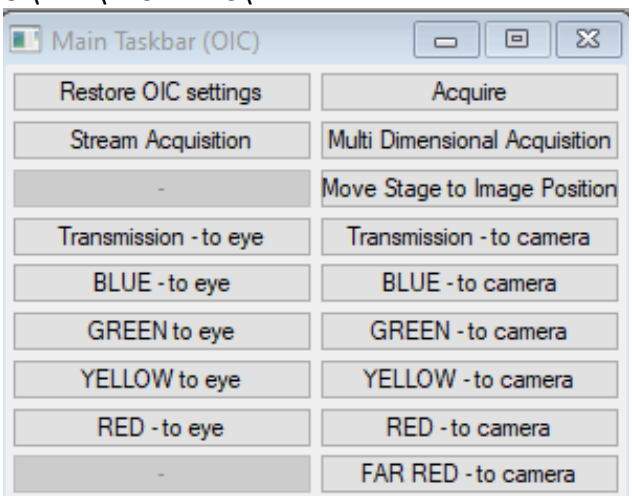
Taskbar

- When the taskbar is not visible
  - Load the taskbar via: Journals>Taskbar>Load Taskbar
  - Location C:\MM\TASKBARS\

Restore illumination settings

Open stream window

Select illumination setting to eyepiece



Open acquire window

Open MDA configuration

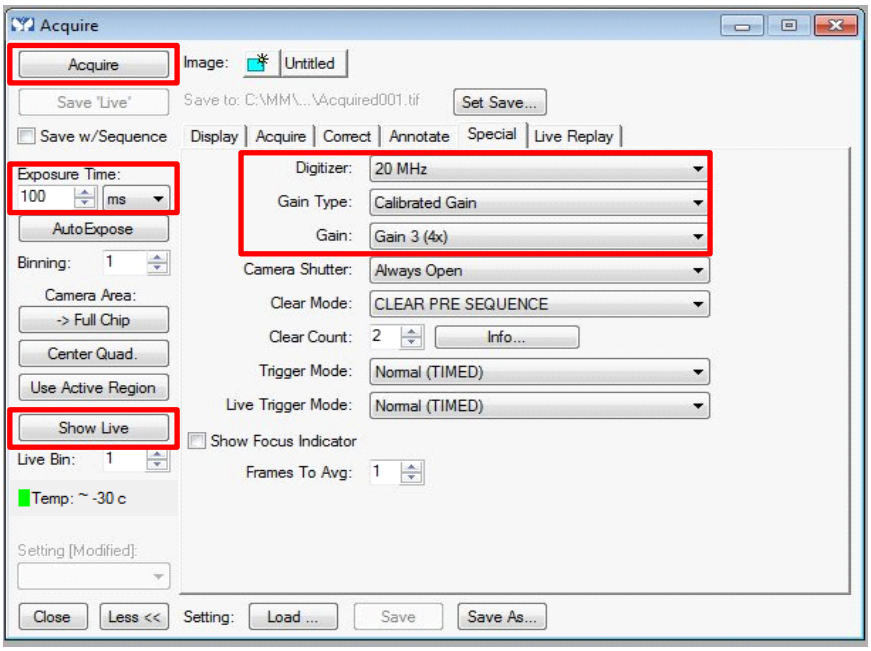
Move stage with cursor

Select illumination setting to camera and start Live mode

- If needed: reset the illumination settings with: "Restore OIC settings"
- Open the Acquire window
- Configure Stream acquisition or start MDA configuration
- Move stage by clicking inside live image window (distance from centre equals movement)
- Select illumination settings for Eyepiece (left) or camera (right)

Acquire window

- Open via Taskbar button “Acquire”



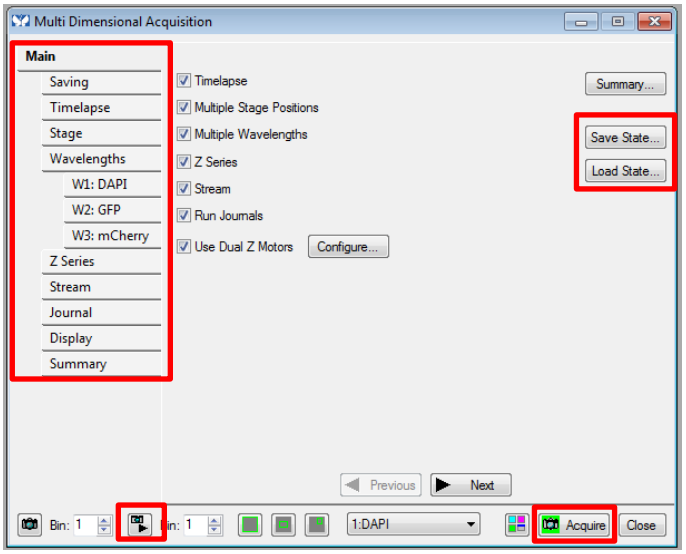
- Acquire an image
- Set exposure time
- Camera gain settings
- Show/Stop live view

Multi-Dimensional Acquisition (MDA)

Combine multiple tasks: z-stack, timelapse, streaming, multiple positions, multiple wavelengths, use of journals.

Select acquisition mode(s) in *Main*

- Continue with the tabs shown left:
  - Saving: select filename and folder
  - Select illumination settings
  - … options for acquisition modes
- When setup is done press acquire



- Save or load settings of experiment setup, with Save/Load State buttons

- Live mode can be started from MDA window