

Slide Scanner Instructions

Getting Started

1. Switch on the white **Power supply box** and the **Computer**
 - If you are using **fluorescence**: switch on the Excite Lamp above the microscope
2. The password to log into the computer is "ms"

Loading Slides

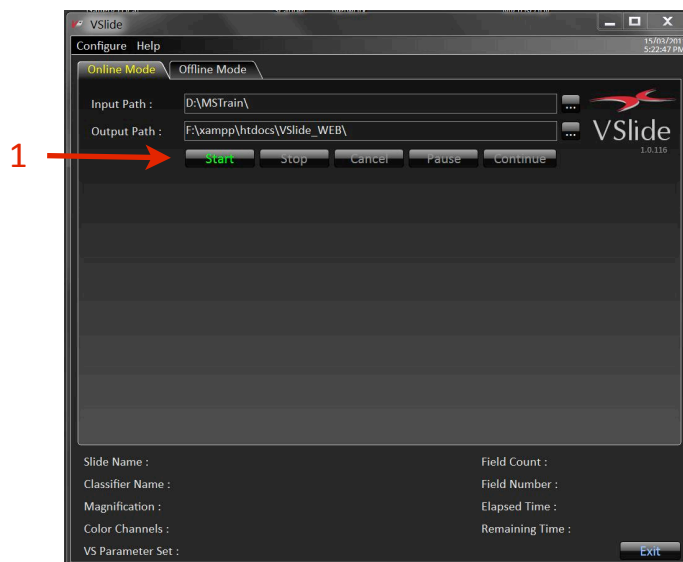
- When loading slides make sure they are flat in the tray, and pushed all the way to the top left.
- Make sure the slides are clean - as dust can cause problems when the scanner is focusing on the tissue.

Stitching Images / Using Vslide

(Before you start scanning)

1. Start the **Vslide** program
2. Under Online Mode choose **Start (1)**

- The software has been set up to automatically stitch to IMARIS format and delete the raw data files

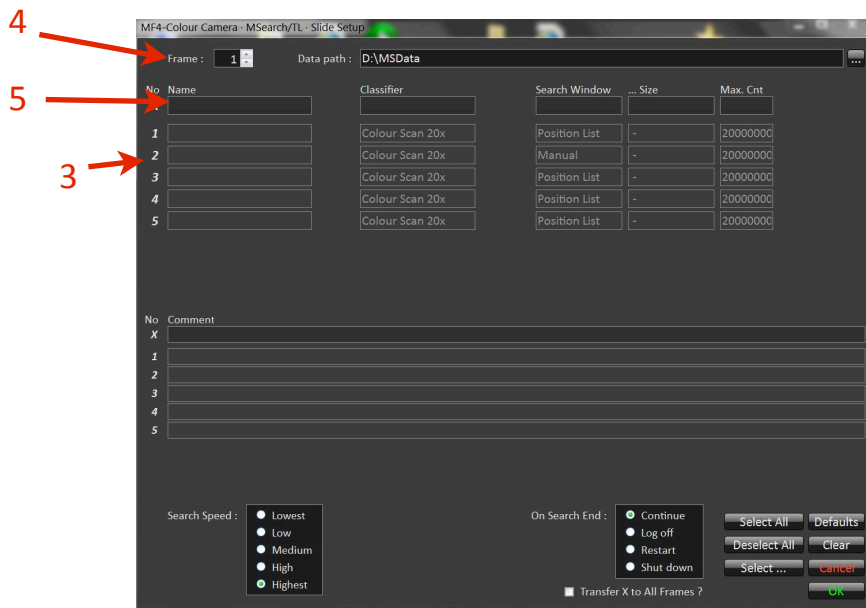
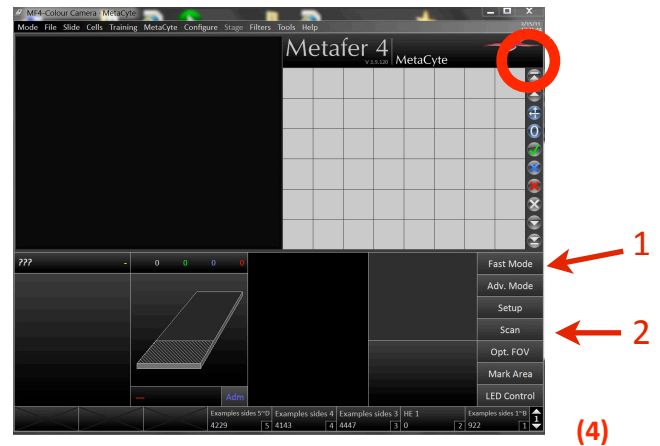


Enabling Robot Arm

- In the top right corner of the software - right click on the "-" and select enable feeder. (red circle over page)
- Make sure there is no tray on the microscope before clicking yes

Fast Scanning with Colour Camera

1. Switch ON microscope power supply.
2. Start **Vslide** and under online mode press **Start**.
3. Start **Metafer4 Colour Camera**
4. Click **Fast Mode (1)**
5. Click **Setup (2)**
6. Within setup choose the slides you wish to scan
 - Clicking the slide number **(3)** will enable/disable the slide
 - (red = scanned / white = not scanned)
 - Name each slide
 - Repeat this process for each tray you have loaded - tray/frame number in top left



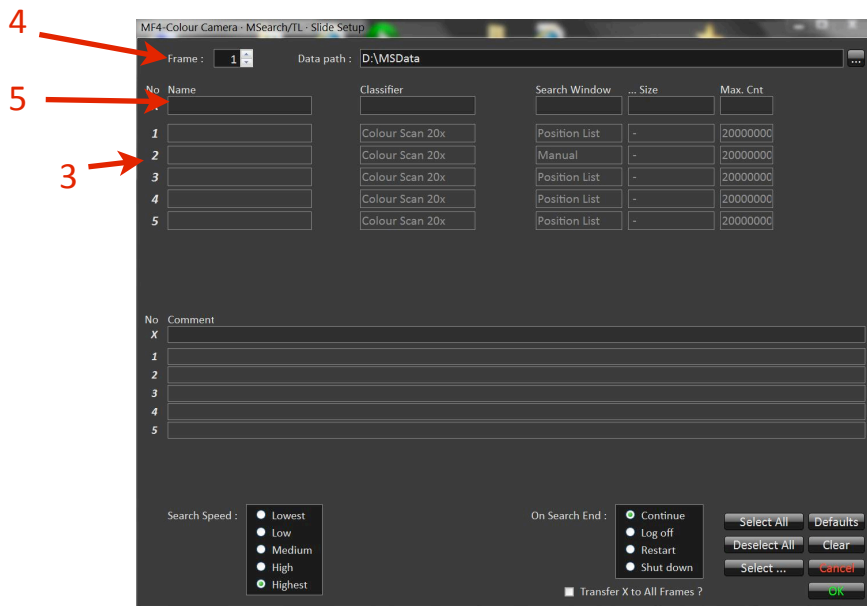
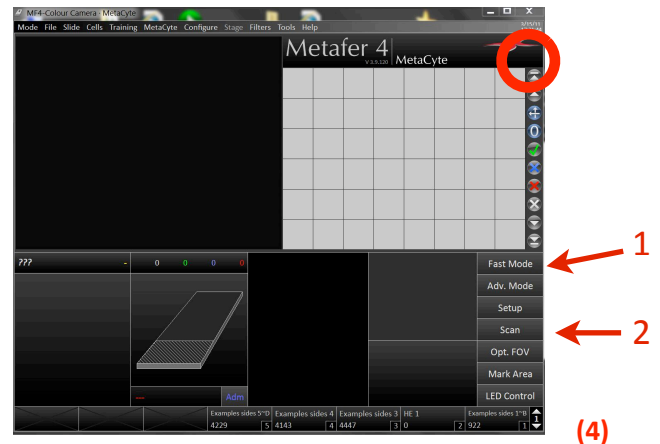
7. Under **Classifier** choose scanning mode. Either:
 - **FS Scan 20x - Nissl (CC)** - use this for most tissue, especially thick tissue, blue/purple tissue
 - **FS Scan 20x - Myelin (CC)** - use this for faint tissue, especially brown/red coloured tissue
8. Under **Search Window** choose **Predefined**. Then select an appropriate region:
 - **FS ++ or FS SuperFrost** - will scan most of the slide but will avoid edges where coverslips may be
 - **FS ++ or FS SuperFrost filled coverslip** - will scan a larger area
 - **FS ++ or FS SuperFrost whole slide** - will scan the whole slide including coverslip edges etc - use this for slides with tissue everywhere on the slide BUT understand some tissue may be out of focus.

-- Use top column **(5)** for all active slides in frame OR change settings for individual slides.

9. Once the Classifiers and search regions have been selected for each slide press **OK**
10. Then, in the main screen press **Scan** (under setup)
11. The microscope scope will then load the first tray (if using the robot) and move to the first slide to be scanned. Find some tissue, Focus on it, and then click **OK**

Advanced Scanning with Colour Camera

1. Switch ON microscope power supply.
2. Start **Vslide** and under online mode press **Start**.
3. Start **Metafer4 Colour Camera**
4. Click **Adv. Mode (1)**
5. Click **Setup (2)**
6. Within setup choose the slides you wish to scan
 - Clicking the slide number **(3)** will enable/disable the slide
 - (red = scanned / white = not scanned)
 - Name each slide
 - Repeat this process for each tray you have loaded - tray/frame number in top left



7. Under **Classifier** choose scanning mode. Either:
 - **2.5x prescan for 20x - Nissl ++** - use this for most tissue, especially thick tissue, blue/purple tissue
 - **2.5x prescan for 20x - Nissl SF** - as above but on superfrost slides
 - **2.5x prescan for 20x - Myelin ++/SF** - settings for Myelin or brown, faint staining
 - **2.5x prescan for 20x - nickel DAB ++ Ilan** - use these settings for any nickel DAB stained brains on ++ slides
8. Under **Search Window** choose **Predefined**. Then select an appropriate region:
 - **AM ++ Slide**
 - or **AM SuperFrost Slide**

-- Use top column **(5)** for all active slides in frame OR change settings for individual slides.

9. Once the Classifiers and search regions have been selected for each slide press **OK**
10. Then, in the main screen press **Scan** (under setup)
11. The microscope scope will then load the first tray (if using the robot) and move to the first slide to be scanned. Find some tissue, Focus on it, and then click **OK**

WORKING WITH GENERAL MICROSCOPES



Ergonomics: Use of mouse and keyboard / viewing computer screen – Prolonged use of the microscope and microscope computer without breaks can increase the risk of muscular strain.



Eye strain and fatigue – Viewing samples through microscope eye piece or computer monitor over lengthy periods of time can result in eyestrain and headaches.



Exposure to sharps – Exposure to razor blades, scalpels, forceps, cover slips, glass slides could result in cuts or puncture wounds to hands or other areas of the body. Any microscope slide shards or glass debris must be disposed of in the appropriate sharps disposable bin in accordance with PC2 regulations.



Exposure to intense fluorescent light – Xenon or mercury light sources are attached to this microscope and are the source of intense and potentially dangerous light. Under no circumstances should any optical elements be removed from the microscope light path or fail-safe switches be circumvented. Do not attempt to adjust the light path, or illumination modules in any way. Avoid direct exposure to the light.

Scope

This procedure details the method for using the general microscopes.

Safety Considerations

Personal Protective Equipment (PPE):

Laboratory coat, latex gloves and closed in shoes should be worn to prevent injury.

Ergonomics and Risk Exposure:

Appropriate ergonomics, including adjustment of the seat, computer screen and microscope oculars should be undertaken to reduce risk of strain injuries.

Emergency Procedures:

First aid may be required for:

Exposure to sharps – Contact the nearest first aid officer from the list that is beside all first aid kits and on safety notice board.

Exposure to intense fluorescent and laser light – Seek immediate medical assistance if you have been exposed to intense direct light or laser light.

All incidents must be reported to the OH&S Manager and on UQs online incident reporting system.

Contacts: Security x53333 or OH&S Manager Ross Dixon 0401 673 654