


### Access Techcyte Fusion AP


See the [MayoACCESS](#), [MayoLINK](#), or [Notifications](#) user guide for instructions on accessing Techcyte Fusion AP.

### Slide Viewer settings

Click gear icon  at top right to access **Show label image**, **Show overview image**, **Dynamic minimap size**, **In-app gamepad support**, **Collaborate**, and **Next zoom level** options.

### Case Details

To view details of a case:

- Click left arrow  below **Dock** icon.
- At top of screen, on side where panels are docked, click **Case Details**.

#### Case Details panel

**Note:** **Case Logs** (clock icon at top right), **Tags**, **Block details**, **Slide details**, and **DICOM Metadata** link are for internal use.

- **Case Details** section shows Demographic Details info plus **Date of Death** and referring doctor's last and first names.
- **Specimen Details** section lists **Specimen type** and, if applicable, **Specimen type modifier** (which may be blank, depending on case type).
- **Slide Details** section lists **Request type**.
- **Scan Details** section lists **Barcode number**, **Scanner number**, scan **Status**, **Request type**, and **Uploaded date and time**.

#### Demographic Details





At top of screen: Mayo case number, patient name, Mayo Medical Record Number (MRN)/accession number, date of birth and sex, current age, and age at collection.

### Slide Viewer: Navigation and tools

#### Zoom


- Scroll mouse wheel up or down to zoom in or out, respectively.
- Press **+** or **Shift + D** or **Shift + →** to zoom in.
- Press **-** or **Shift + A** or **Shift + ←** to zoom out.
- Double-click image to zoom to the **Next Zoom Level**.
- On certain touch devices, pinch screen to zoom in and out.

#### Pan

- Pan one full screen view Up (**W** or ) , Down (**S** or ) , Left (**A** or ) , or Right (**D** or ) .
- In Windows, if mouse scroll wheel permits clicking, click to activate auto-pan (keyboard shortcut: **L**). To pan, drag cursor without holding down left mouse button. Click scroll wheel, **L** again, or **Esc** to deactivate.

#### Rotate







To freely rotate image in Slide Viewer, do one of the following:

- Click **Rotation** icon  at top right of Minimap and drag cursor up or down.
- Press **ALT** + left mouse button; drag cursor in desired direction.


To reset Zoom and Rotation, press **0**.








#### Image view panels

- **Minimap** provides:
  - Image thumbnail. Click desired area of thumbnail, or drag the black rectangle around it, to move different region of Slide Viewer image into view.

- Mayo Clinic Laboratories block, slide, and stain code label.
- **Rotation** icon.  See above under **Rotate**.
- Current magnification. To change, hover and select new value.
- Heatmap toggle  shows reviewed areas of slide. To turn off, either click again or right-click and select **Clear**.
- **Label Image** panel shows photo of scanned label. To rotate 90° right or left, click **Rotate right**  or **Rotate left** . Click opposite icon to undo.
- **Overview Image** panel shows viewable scanned area of slide in Pathology Image Window.
  - Thin green rectangle around image thumbnail represents scanned area of slide. Drag to move different region of slide image into view within panel. Press **0** to restore default view.
  - To resize panel, drag its bottom left corner inward or outward.
  - To rotate overview image 90° right or left, click **Rotate right**  or **Rotate left** . Click opposite icon to undo.
  - To expand panel to **Full Screen** mode, double-click it. To restore overview image to original size and position, click **X** at top right, **Close** at bottom right, or **Esc**.


#### Slide view tools

To open **Slide view tools** panel, click its icon.  From this panel, you can:


-  **Adjust color**. Use sliders to adjust slide image **Brightness**, **Contrast**, **Saturation**, **Hue**, and **Gamma**. To undo, click **Reset**.
-  **Toggle auto-pan** to pan slide image without clicking left mouse button (keyboard shortcut: **L**).
-  **Flip horizontally**.
-  **Flip vertically**.
-  **Rotate 180°**. You can also select and hold down **Ctrl**; when cursor changes to fist icon , freely rotate image with mouse.
-  **Reset zoom and rotation** (keyboard shortcut: **0**).

#### Mitosis counting


To count mitoses within an area of a slide:

1. Click **Flows** icon. 
2. In **Mitosis counting** dialog box, from **Target area (mm<sup>2</sup>)** drop-down menu, select **0.2**, **1**, or **2** mm<sup>2</sup>.
3. Click **Start**.
4. Pan around area of tissue in which you want to count mitoses.
5. Click on each mitosis you see to leave a dot on it.

**Area threshold reached banner** and dialog box progress bar indicate when you have covered at least all of the target area.

6. Click **Finish**.
  - Dialog box shows final mitosis count and allows you to start a new count.
  - For multiple mitosis counts, target areas are bordered in different colors corresponding to those of the respective **Target area** icons  in **Mitosis counting** dialog box.





#### Slide Tray

- Press **←** or **→** to show previous or next slide image in Slide Viewer.
- Hover over a slide to bring up tooltip showing **Slide** number, **Scan** number, **Scan time**, and **Status**.
- To display all slides in a traditional pathology slide flat view, click up-arrow icon  to **Expand** the Slide Tray. Click left-arrow **←** to **Collapse** again.

### Notes:





- Slide Tray must be in **Horizontal** position to be expanded (see below).
- If an image has been deleted from active storage, its slide displays **Overview image not available** message.

### Slide Tray menu:

- Click ellipsis icon  on tray to access the following:
  - Dock tray in **Vertical** (default) or **Horizontal** position
  - Show **Thumbnail** or **Overview** images in tray
  - Hide slide tray**
- Right-click a thumbnail in Slide Tray to bring up a pop-out menu whose options depend on image type:
  - For H&E and IHC slides: **Mark as unread** returns slide to unviewed status; indicated by blue dot on slide.
  - For EM and IF slides:
    - Mark as unseen** returns slide to unviewed status for duration of Fusion AP session; indicated by blue dot on slide.
    - Download scan** lets you download scanned image locally.
  - For both: **Open overview image** opens **Overview image** panel in **Full Screen** mode.
- Sort By** menu  lets you sort slides by  **Block**,  **Stain**, or **Unviewed**, as well as in **Ascending** or **Descending** order. Click **Reset Sort** to restore the default **Block** sort order.


### Select Multi-slide

To display multiple slides in Slide Viewer:


- At top right, between your user icon and the gear icon, click triangle  to right of **Select Multi-slide** icon.  1
  - From drop-down menu, select desired number of slides.  
For each additional slide, a **Drag and drop scan here** pane appears in Slide Viewer to right of default single slide.
  - Do one of the following:
    - Drag image thumbnail of each slide you want to display into one of the **Drag and drop scan here** panes.
    - Hold down **Ctrl** and select multiple slides from Slide Tray.
- White number in blue circle  appears on each thumbnail shown in Slide Viewer, indicating its order on screen.
- To enlarge slide, right-click it and select **Focus slide**.
  - To zoom in on, resize, or rotate all displayed slides at the same time, click **Link slides**  at top right, then adjust any slide.
  - To close a pane, right-click it and select **Close from view**.

To return to **Single Slide view** mode, select **1** option in **Select Multi-slide** menu, or click Slide Tray thumbnails to deselect.

### Toggle Full Screen

At top right, to right of gear icon, click **Toggle Full Screen** icon  to toggle top-row features and side panels of Slide Viewer (except for Demographic Details, which are always shown).

## Annotations





Right-click Slide Viewer, or click **Annotations** icon  at top right, to open **Annotations** panel within and to side of Slide Viewer.

### Sort Annotations

- First by **Name**, **Author**, **Scan**, **Type**, **Created at**, or **Updated at**.
- Then by **Ascending** or **Descending** order.

To return to default **Sort** order, select **Reset sort**.

### Show and Hide Annotations

- To **Hide** a specific Annotation in Slide Viewer, click eye icon  to its right in the Annotations panel.  
The Annotation is hidden. Icon changes to a slashed eye. 
- To **Show** that Annotation again, click icon again. It changes back to default eye icon , and Annotation appears again in Slide Viewer.
- To **Hide** or **Show** multiple Annotations in Slide Viewer, check  their boxes on image thumbnails in **Annotations** panel, then click eye icon at top right.  
Above the list of Annotations, the phrase **All Annotations** changes to **x Selected** (x = number of selected Annotations).  
If you did not select all Annotations, a minus sign icon  appears in check box.
- To **Hide** or **Show** all Annotations in Slide Viewer, check  the **All Annotations** box.  
The phrase **All Annotations** changes to **x Selected** (x = number of selected Annotations). The box to its left is checked.

## Export images

To save a snapshot of a pathology whole-slide image:

- Right-click anywhere on Image Window.
- From pop-up menu, select **Export Image**.
- Choose either **Current View** or **Custom Area**.
  - Current View** selects slide image area currently visible in Image Window.
  - If you select **Custom Area**, left-click slide image area and drag cursor to select a portion of visible area.
- In bottom half of **Export Image** window:
  - From **Type** drop-down menu, select **JPEG**, **PNG**, or **TIFF**.
  - From **Print Resolution** drop-down menu, select **Web resolution** or **Print resolution**.
    - Web Resolution** creates image at same resolution in microns per pixel (mpp) as one captured by a scanner at current zoom level.
    - Print Resolution** creates image 5× the resolution of one captured by a scanner at current zoom level, up to scanner's maximum of 40× mpp of original captured image.  
*Example:* If each pixel = 0.25 μm, resulting image is much sharper than it would be if each pixel = 1.25 μm.
- Under **Include**, check  or uncheck  boxes to:
  - Include or exclude **Annotations**.
  - Dock or not dock **Scale bar**. If you dock it, select either **Left** or **Right**.
- At bottom right, **Cancel** screenshot, **Recapture** it, or **Export** it to local **Downloads** folder on your PC.

## Download files

**EM or IF for Renal Pathology images only:** To download cases in their native file formats/sizes to your PC, right-click thumbnail image in Slide Tray and choose **Download scan**.

## Frequently asked questions

For a list of FAQs about Techcyte Fusion AP, go to the [Digital Imaging](#) page on MayoClinicLabs.com.