MACH7

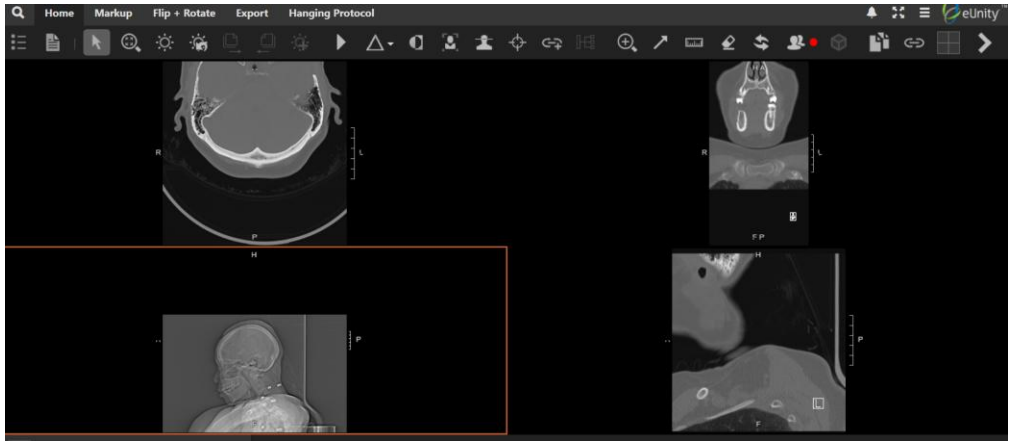
Independence through Innovation

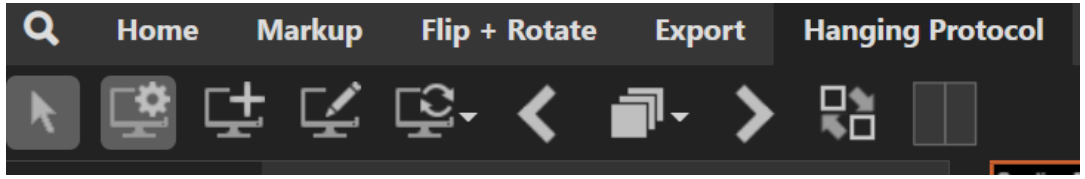
Hanging Protocol Overview

Agenda

- Create a New Hanging Protocol
- Display Sets
- Presentation Steps
- Copying Hanging Protocols
- Launching Hanging Protocols

Create a New Hanging Protocol

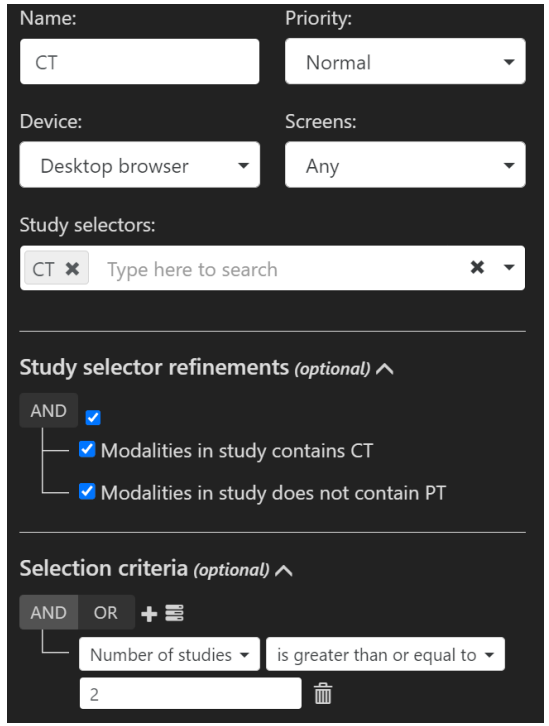




- To create a new Hanging Protocol, open a study and arrange imaging in View Ports as desired
- Next on the Hanging Protocol Toolbar tab, click the Add Hanging Protocol icon
- The hanging protocol editor will open and automatically capture the viewer state as the first Presentation Step

Priority, Study Selectors, Study refinements and Selection Criteria

- Priority - can be changed to High, Low or Normal if needed
  - **Priority should only be changed if the desired HP is not auto loading**
- Device – Can be used to create phone/tablet specific HPs
  - **The default setting of Desktop browser will allow the HP be used on all devices**
- Study Selectors – Specifies which study types will be applicable for the HP
  - **Example: CT or MR**
- Study Selector Refinements – Used to make modifications to the selected Study Selectors
  - **This allows for additional flexibility with broad Study Selectors**
- Selection Criteria - Adds additional criteria
  - **Example: Number of studies can be used to create an HP to load only if priors are available as shown in the screenshot**

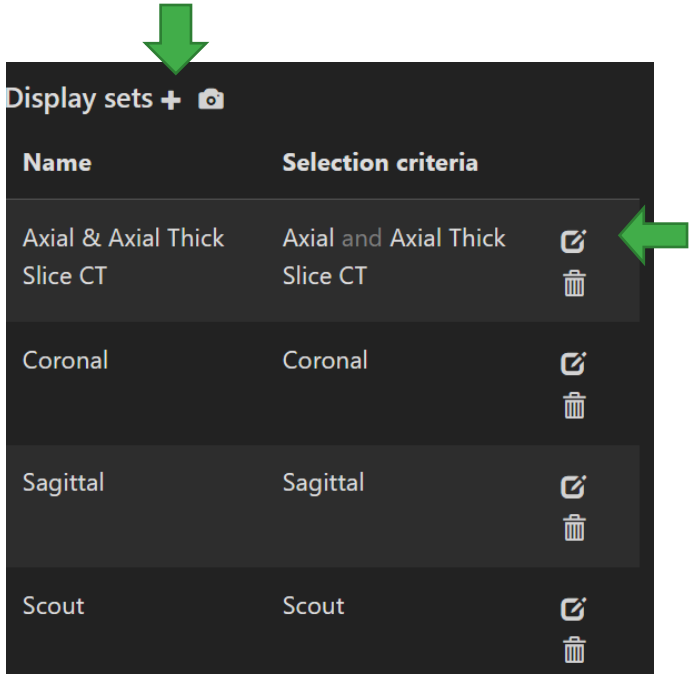


Display Sets

- Display Sets identify the imaging in the study & allow it to be arranged in the viewer
- Display Sets can be automatically created by eUnity based upon the imaging loaded in the viewer at the time of HP creation
- The camera Icon is used to automatically make Display Sets, if none are available
- To manually create a Display Set, click the plus sign next to Display Sets

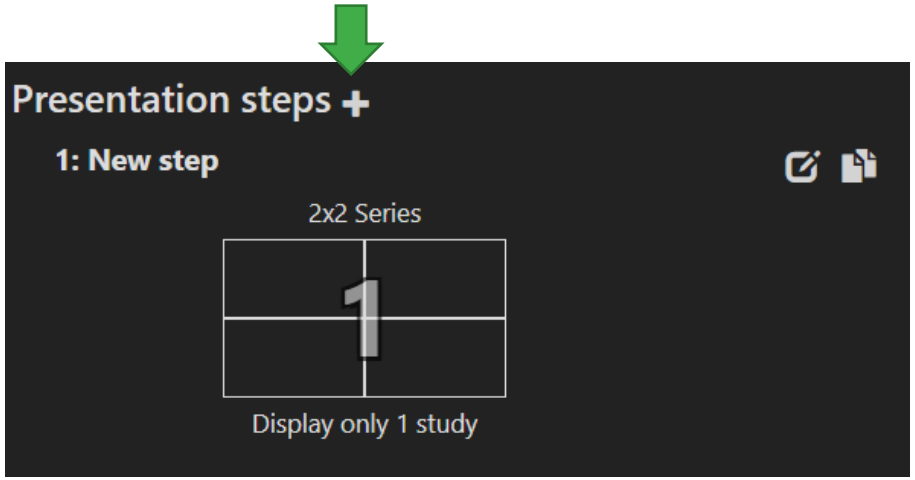
- To edit an existing Display Set, click edit icon next to it

- The trash can will delete a Display Set.

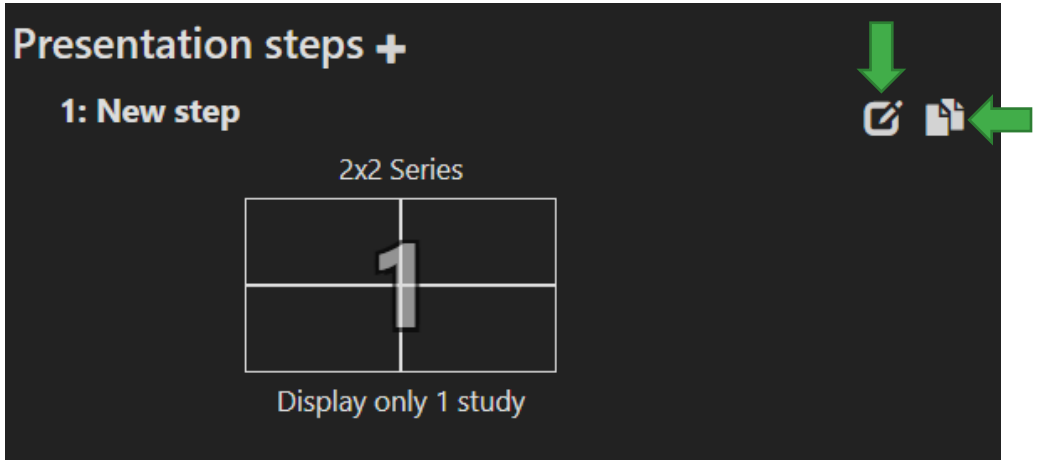


Presentation Steps

- Presentation steps are individual views that make up the hanging protocol
- Each HP must contain at least one Presentation Step
  - **Multiple Presentation Steps can be created to allow the user to step through different views quickly**

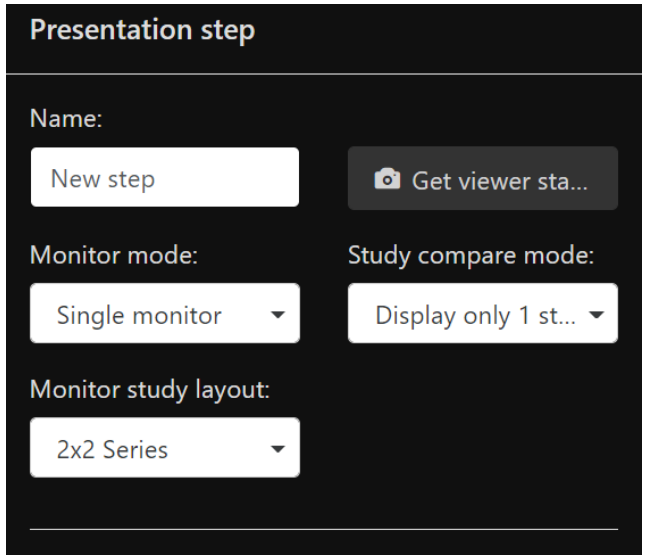


- Presentation Steps can be created by clicking the plus sign next to Presentation Steps
- Existing Presentation Steps can be edited by clicking the edit icon
- To make a copy of a Presentation step click copy icon located to the right of the edit icon

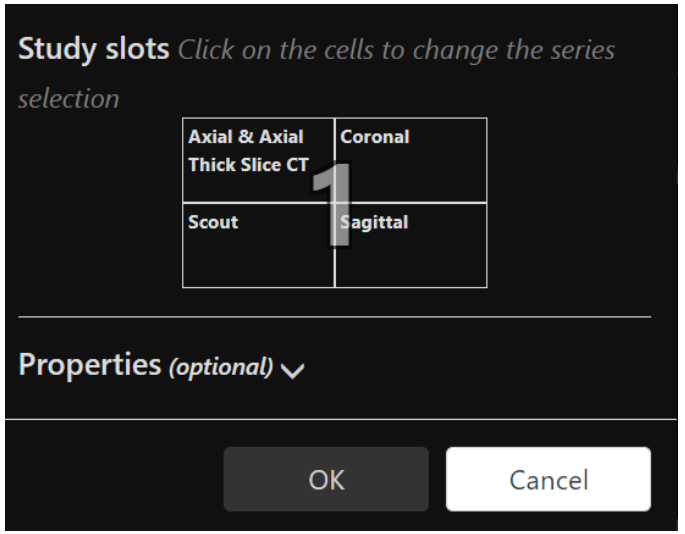


Presentation Step Details

- When creating/editing a Presentation step, the following properties can be modified:
  - **Presentation Step Name**
    - **Default of “New step” is auto applied**
  - **Number of monitors**
  - **Monitor layout – sets the viewport layout**
    - **Each monitor can have a distinct layout**
  - **Study compare mode – sets the layout for displaying current & priors**

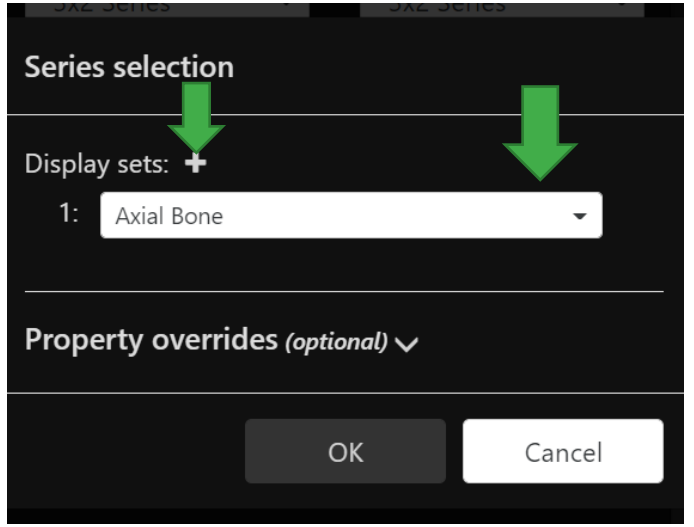


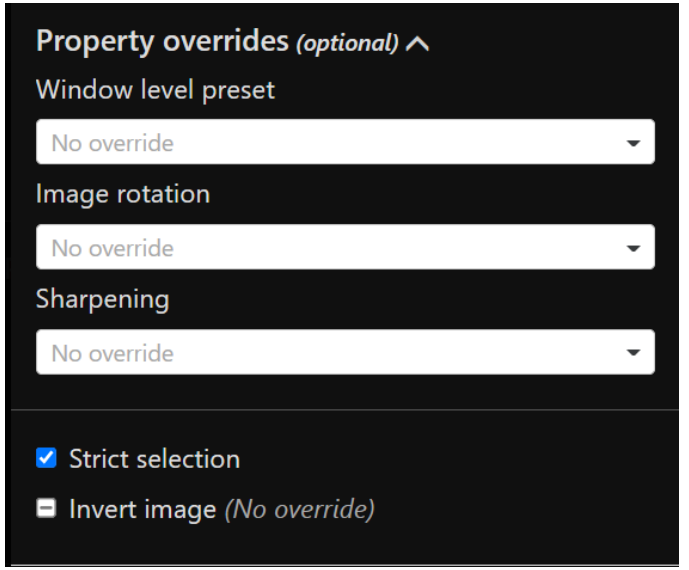
- To modify position imaging in the HP layout, click on desired cell in the Study Slots section



Presentation Steps - Study Slots

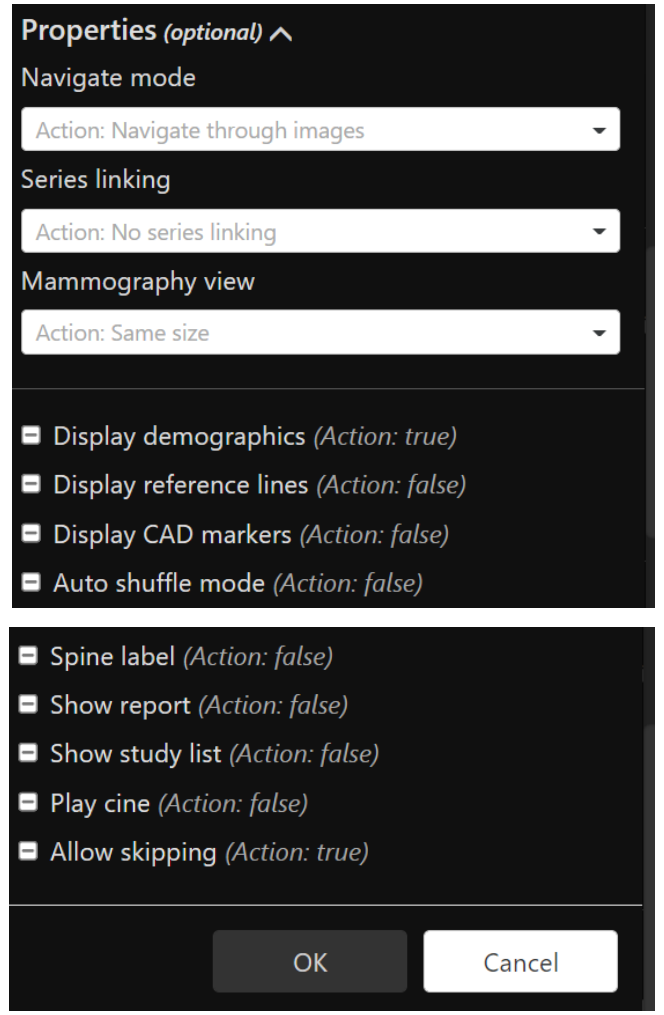
- As previously described, click on desired cell in the Study Slots section to modify imaging position in the View Ports
- Select the appropriate Display Set from drop down to set the desired imaging
- Multiple Display Sets can be added by clicking the plus icon
  - **Any additional Display Sets will act as “backups” and will only be loaded if imaging corresponding to higher priority Display Sets is not available**
- Properties can be set for each cell in the Property Overrides section
  - **Enabling Strict Selection will cause the specific View Port to be blank if no applicable imaging is in the loaded study**





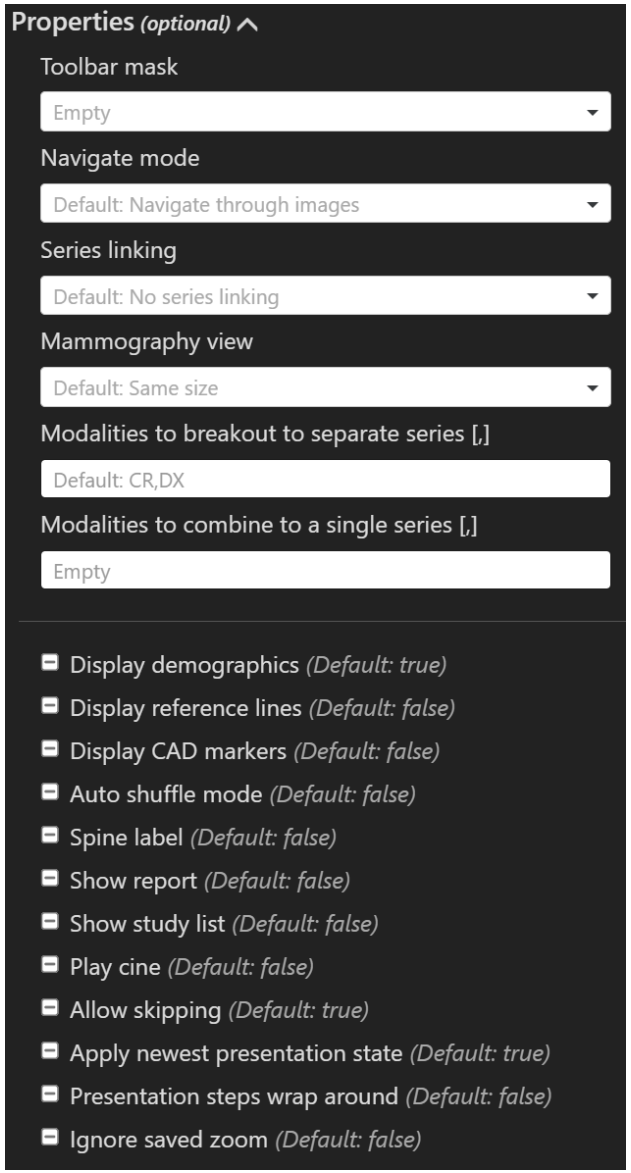
Presentation Step Properties

- Properties can be applied to a Presentation step and will supersede properties applied at the hanging protocol level
- The properties displayed in parenthesis are the default settings
  - **These are indicated by (Action: true) or (Action: false)**
  - **The default action is being applied if there is a minus sign in the checkbox**



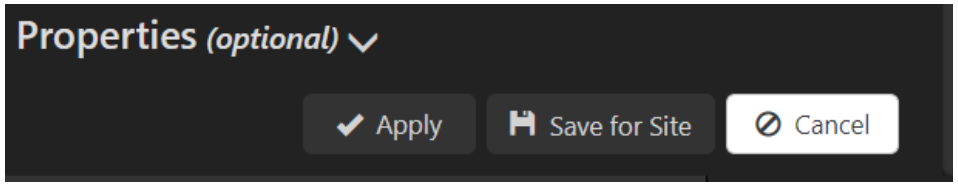
Hanging Protocol Properties

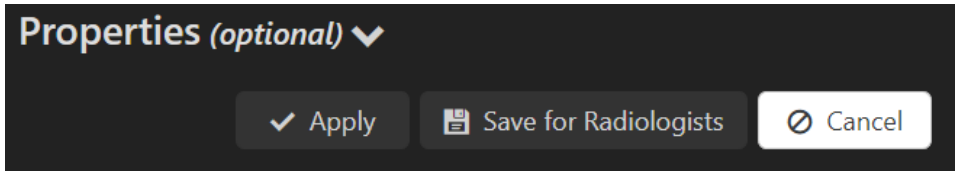
- Additional properties can be applied to the overall HP
- Toolbar Mask allows a specific tool to be hidden from the toolbar
- Navigate Mode sets the behavior when scrolling through series/images
  - **The default behavior is Navigate through images**
  - **Navigate through series will allow the user to scroll through single images and is useful for X-Ray HPs**
- Series Linking allows all imaging of the same plane to scroll in sync
- Mammography View allows the desired zoom for mammography imaging to be set. This includes: fit to window, quadrant and same size
- Modalities to breakout or combine allow imaging to be broken out into a distinct series or combined into a single series
  - **This is useful for XR or US modalities that send imaging combined or broken out**

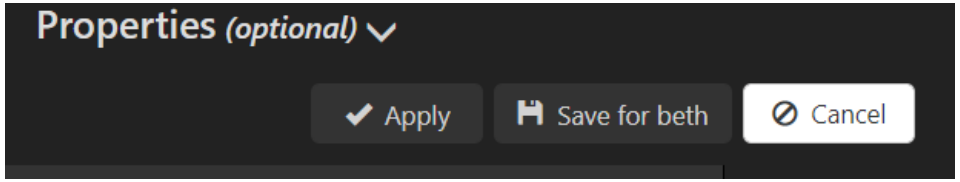


Saving the Hanging Protocol

- Hanging protocols can be saved at the Site, Group or User level
- The Save button will display the level at which the HP will be saved
  - **Site will display Save for Site**
  - **Group will display Save for GROUP NAME**
  - **User will display Save for USERNAME**

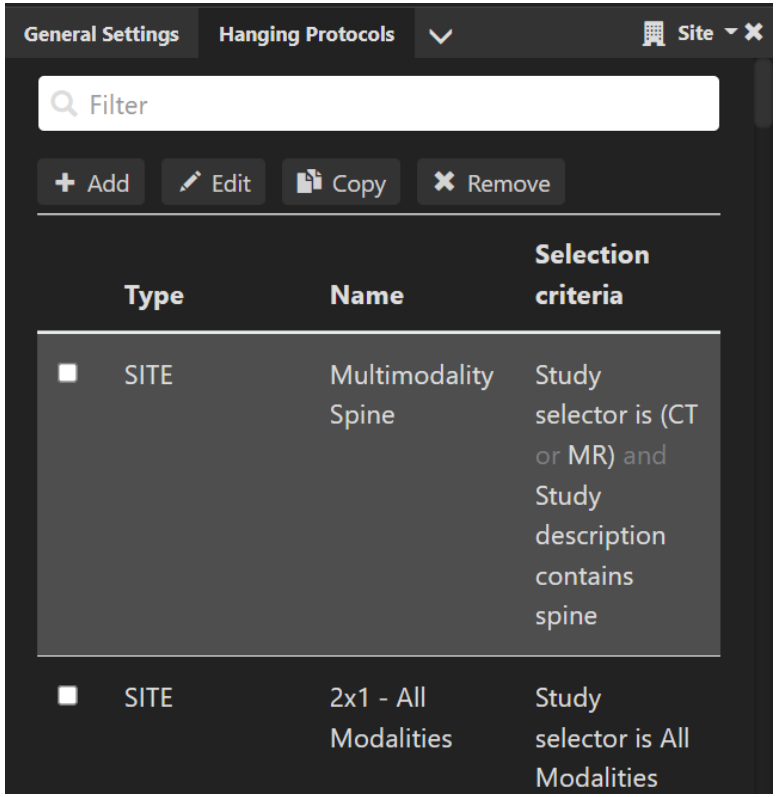






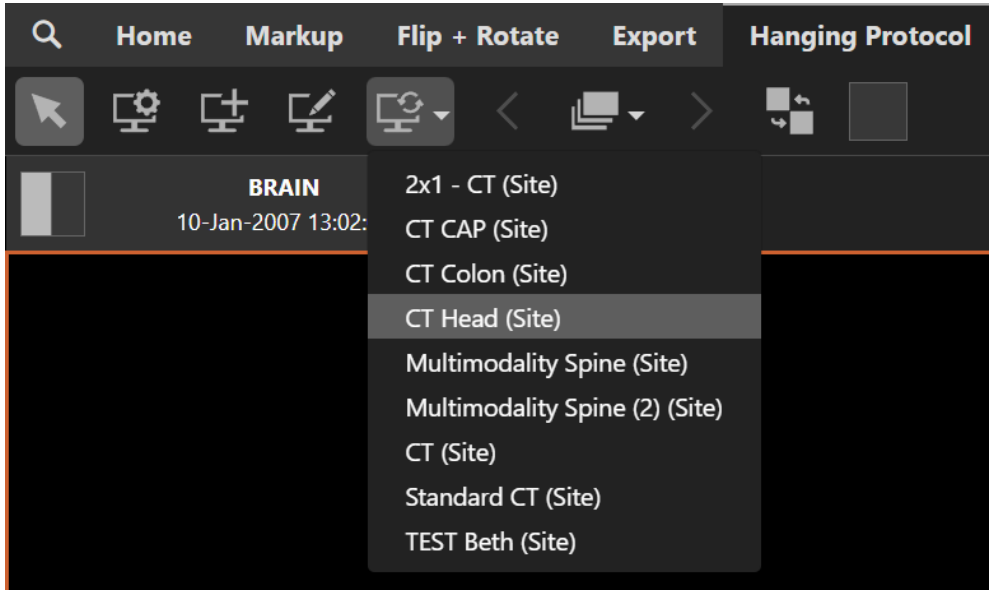
Copy a hanging protocol

- If a non administrator modifies a site or group HP, eUnity creates a copy of the HP that will be available only for that user. The Save button will be updated to say Save for me to indicate that HP will be saved at the user level
- On the Hanging Protocol toolbar tab, click to open the hanging protocol panel
- The Filter field at the top of the hanging protocol panel can be used to search for the desired hanging protocol
- Select the checkbox beside the hanging protocol that you want to edit
- To edit the hanging protocol, click Edit button
- To make a copy of the hanging protocol so that the original hanging protocol is not changed, click the Copy button



Launching Hanging Protocols

- eUnity will auto launch the most appropriate HP when opening imaging
- If multiple HPs match the opened study, the user can choose a different HP by clicking the Select Hanging Protocol dropdown
- The currently loaded HP is highlighted
- The HP's level (site, group or user) is displayed in parenthesis to the right of the HP name
- Level priority is as follows
  1. **User**
  2. **Group**
  3. **Site**



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Thank you!