Creating and Customizing a New Screen

OVERVIEW

Within 4DM, new screens can be created based upon individual preferences. These new screens can be created as part of a standard or user-specific 4DM workflow. The new screen along with the corresponding workflow can be transferred easily from one 4DM workstation to another.

> For assistance transferring custom screens, refer to the **Backing Up Preferences** and **Restoring Preferences** Reference Guides.

HOW-TO GUIDE

To create a new screen, the user must first select the desired **standard** or **user-specific 4DM workflow** from within the **Select User** menu in Preferences.

HOW TO CREATE A NEW SCREEN

1. Launch a patient into 4DM and select the **Preferences** button (see ❶ Figure 1) from the **Control Panel**.
2. Select the **User Menu** (see ❶ Figure 2) from within **Preferences**.
3. Click **Select User** (see ❷ Figure 2) and choose a **standard** or **user-specific 4DM workflow**.
   - **Standard workflows** include:
     - Default
     - FDG-Viability
     - PET-CT
     - PET-CFR
     - GBPS
     - SPECT-CT
     - Inflammatory
     - SPECT
     - SPECT-CFR
   - **User-specific workflows** are user generated workflows using the **Create New User** option.

     > For assistance creating user-specific workflows, refer to the **Creating a New Workflow** Reference Guide.
4. Select the **Screen Layout** page (see ❶ Figure 3).
5. Click the **Add Screen** button (see ❷ Figure 3) and the *Add Screen* window appears (Figure 4).
6. Enter a name for the new screen and click **OK**. The screen appears at the bottom of the **Active Screens** list of workflow screens. Refer to the **Changing the Workflow** Reference Guide for assistance with changing the new screen placement within the selected workflow.

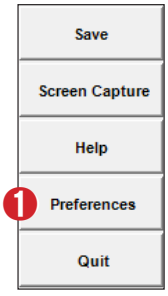

Figure 1. Control Panel

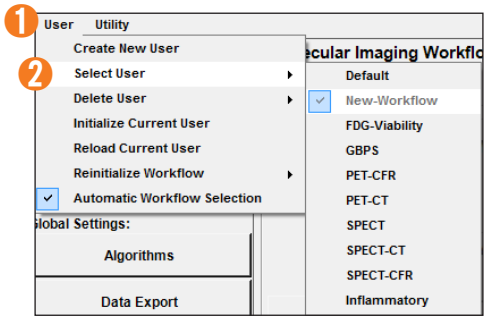

Figure 2. User Menu in Preferences

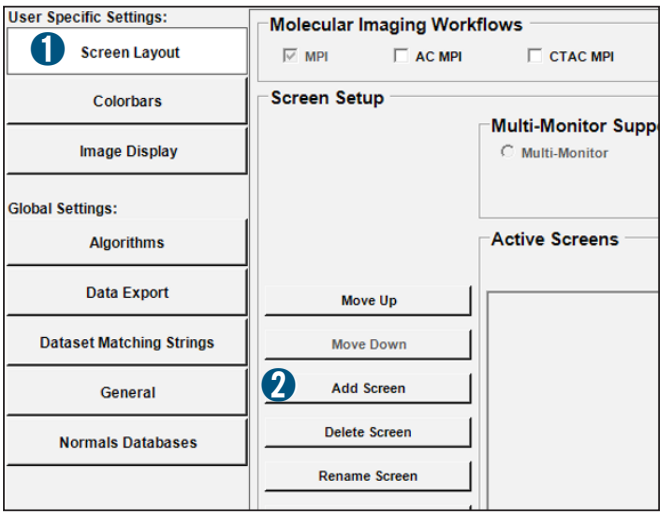

Figure 3. Screen Layout page within Preferences

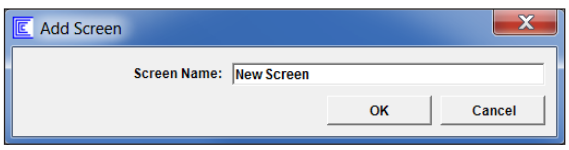

Figure 4. Add Screen window

HOW TO DESIGN A NEW SCREEN

The following are two examples of how to design a new screen within 4DM. The first example uses a 4DM **Screen Template** to customize a new screen using a standard 4DM template, and the second example uses the **User Defined Screen Template** option to design a new screen starting with a blank background.

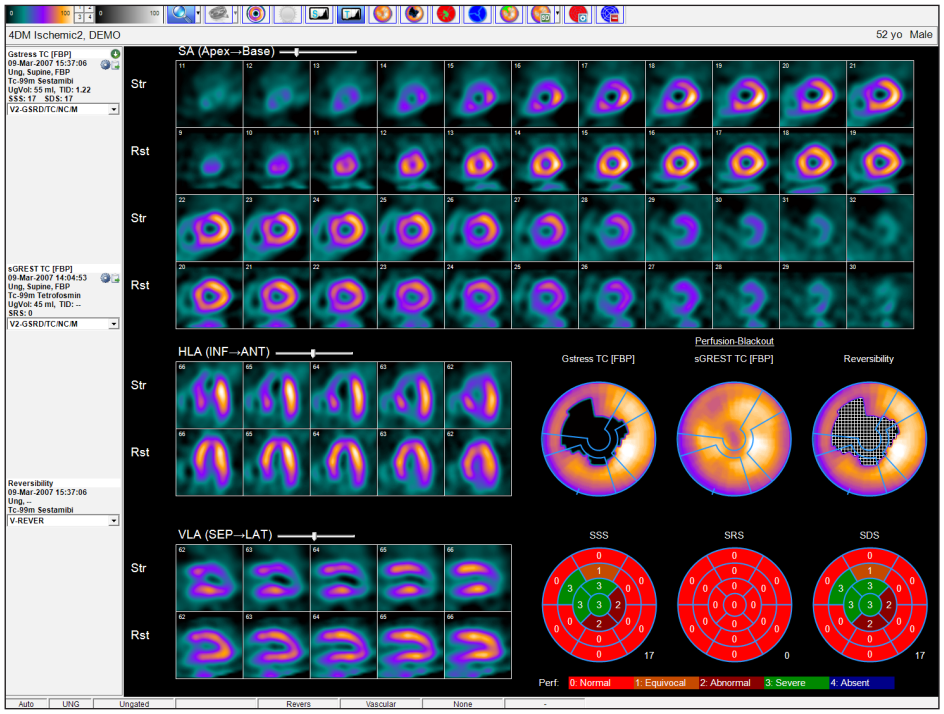

Figure 5. Custom screen using 4DM Screen Template

4DM Screen Template Customization:

1. Select the new screen to begin customizing the appearance.
2. Under **Dataset Layout**, select the type of data to be displayed on the screen - in this example, **Perfusion** (see ❶ Figure 6).
3. Next, select the type of object you want on the screen - in this example, **Images + Scores** (see ❷ Figure 6).
4. Click the **Edit Screen** button (Figure 7) to open the **Screen Designer**, which enables customization of the screen objects settings for the new screen.

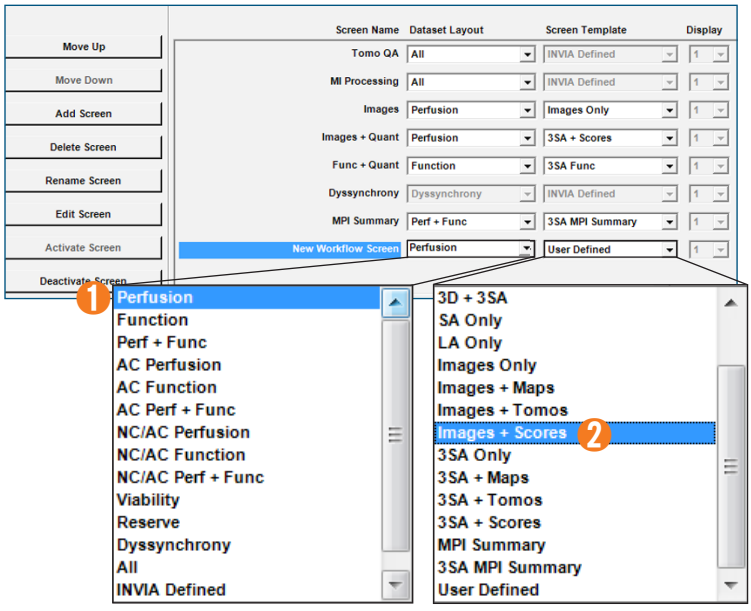

Figure 6. Dataset Layout & Screen Template menus

Figure 7. Edit Screen button

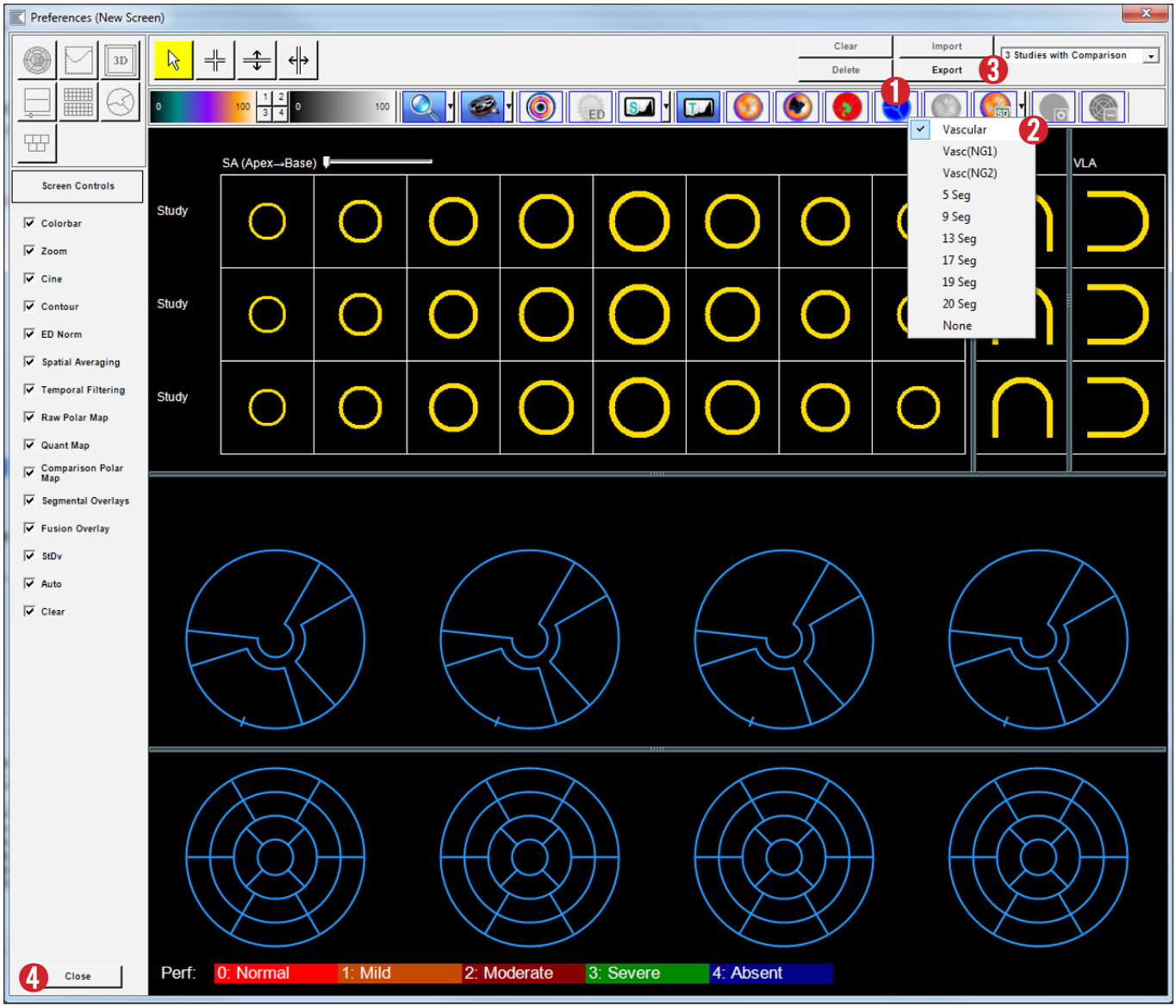

Figure 8. 4DM Screen Designer

5. Click the **Segmental Overlay** icon (see ❶ Figure 8) to change the overlay option from 17 segments to the **Vascular** overlay option (see ❷ Figure 8) for polar map objects. Further customization to this or any other 4DM Screen Template is performed within the Screen Designer.

6. After customization is finished, click the **Export** button (see ❸ Figure 8) to export a template of the new screen layout in the 4DM **screenTemplates** directory folder.

7. Click **Close** (see ❹ Figure 8) to save the changes to the new workflow screen.

8. Click **Save** to add to the list of Active Screens.

   - *Refer to the **Changing the Workflow** Reference Guide for assistance with placing the new screen within the selected workflow.*

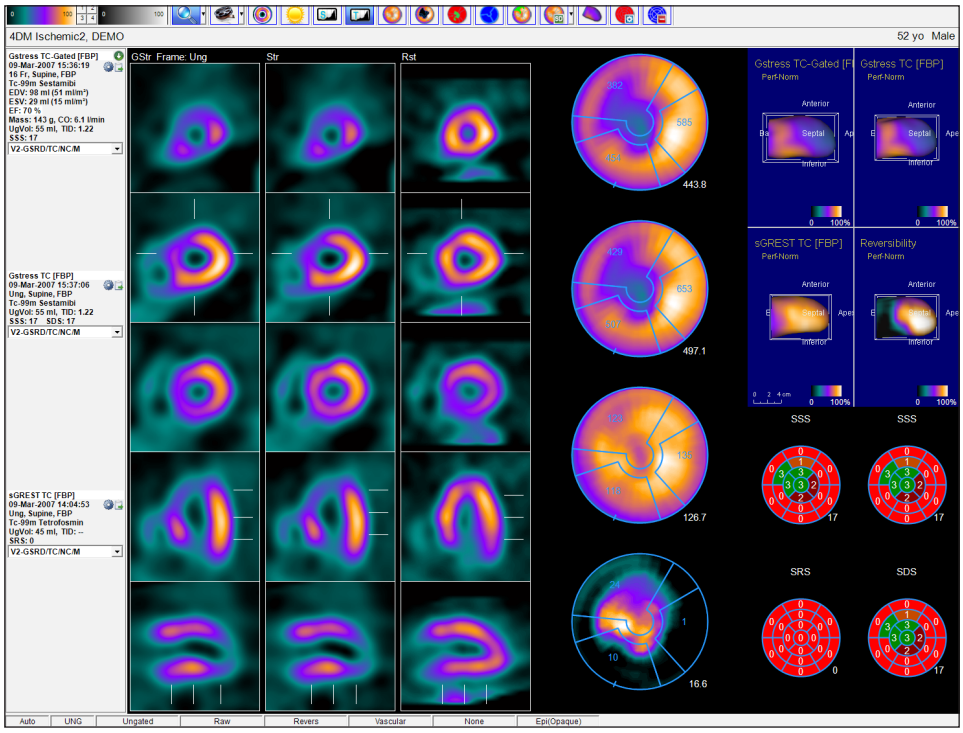

Figure 9. Custom screen using User Defined screen template

User Defined Screen Template Design:

1. Select the new screen to begin designing the appearance.

2. Under **Dataset Layout**, select the type of data to be displayed on the screen - in this example, **Perf + Func** (see ❶ Figure 10).

3. Next select the type of object you want on the screen - in this example, **User Defined** (see ❷ Figure 10).

4. Click the **Edit Screen** button (Figure 11) to open the **Screen Designer**, which enables the addition and customization of screen objects.

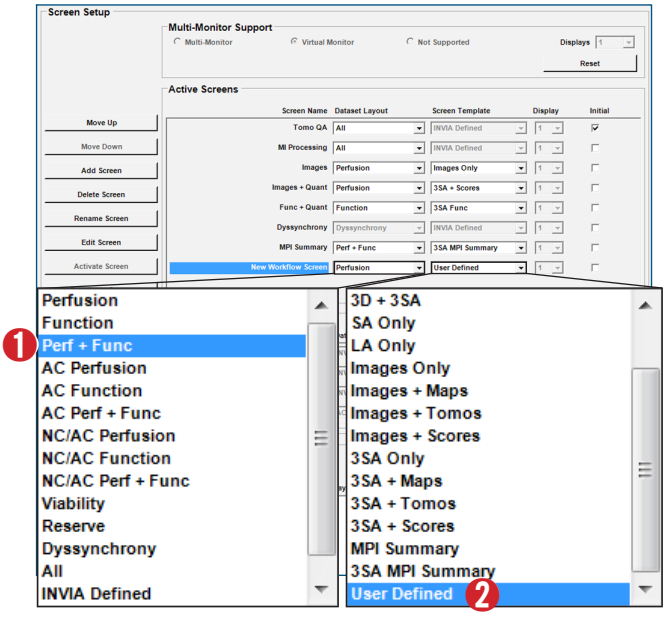

Figure 10. Dataset Layout & Screen Template menus

Figure 11. Edit Screen button

5. Add vertical and horizontal splitters first to divide the screen, which makes it easier to place objects within the **Screen Designer**.

   - Select the **Vertical Splitter** button (see ❶ Figure 12) and add two vertical splitters (see ❶ Figure 13).

   - Select the **Horizontal Splitter** button (see ❷ Figure 12) and add a horizontal splitter (see ❷ Figure 13).

6. Select the corresponding object buttons, and move the mouse cursor over each section to place the following objects in order left to right (Figure 14):

   - **3SA Screen Object** - (see ❶ Figure 15) displays a slice view with three short axis, mid-horizontal long axis, and mid-vertical long axis slices for all datasets.

   - **Polar Maps Screen Object** - (see ❷ Figure 15) displays 2D polar maps for all datasets.

   - **3D Screen Objects** - (see ❸ Figure 15) displays 3D polar maps for all datasets.

   - **Scores Screen Object** - (see ❹ Figure 15) displays segmental score maps for all datasets.

   Other Screen Objects:

   - **LV Volume Curve Object** - (see ❺ Figure 15) displays a left ventricular volume curve for all gated datasets.

   - **Tomo Screen Object** - (see ❻ Figure 15) displays a rotating raw tomo for all datasets.

   - **Splash Screen Object** - (see ❼ Figure 15) displays full rows of short axis, horizontal long axis, and vertical long axis slices for all datasets.

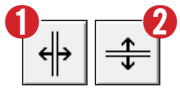

Figure 12. Vertical Splitter & Horizontal Splitter buttons

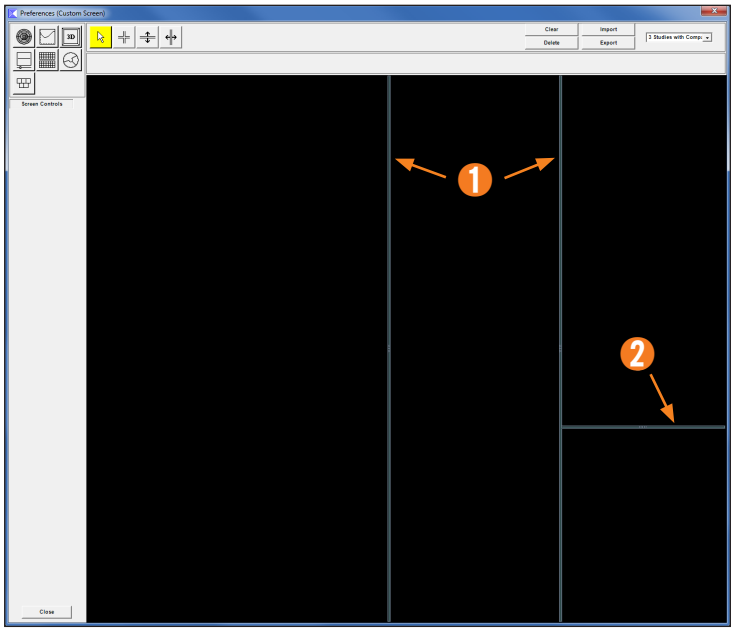

Figure 13. 4DM Screen Designer window

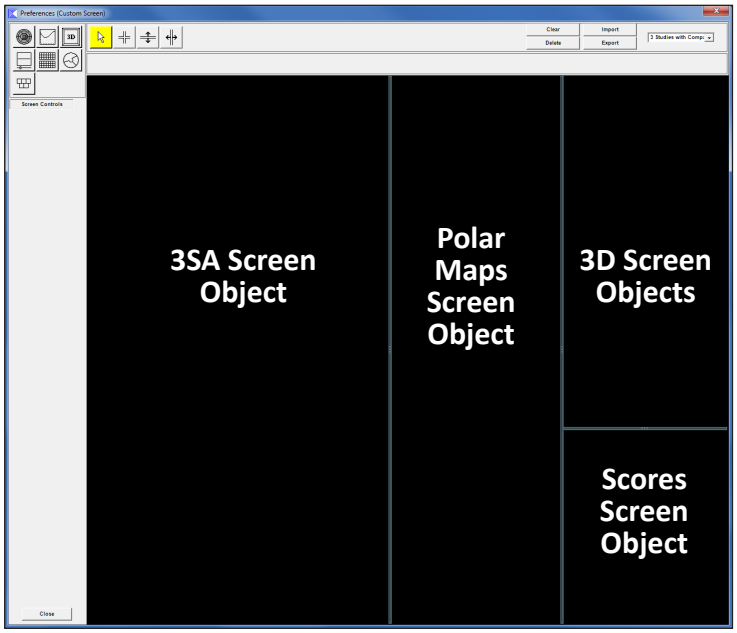

Figure 14. 4DM Screen Designer window

Figure 15. Screen Objects buttons

Screen objects can be customized by right-clicking on the object within the Screen Designer. To demonstrate, right-click on the 3SA Screen Object where you can customize the object to appear how it does in Figure 9.

7. Right-click the **3SA Screen Object** and select **Object Preferences** to open the *3SA Screen Object Options* window (Figure 16).

8. Under **Layout**, select **Five Rows (1x5)** (see ❶ Figure 16).

9. Under **Columns**, select **All Datasets in Multiple Columns** (see ❷ Figure 16).

10. Click **Apply** to make changes and then click **OK** to save the changes to the **3SA Object**.

11. After customization is finished, click the **Export** button (see ❶ Figure 17) to create a template of the layout in the 4DM **screenTemplates** directory folder.

12. Click **Close** to save the changes to the new workflow screen.

13. Click **Save** to add to the list of Active Screens.
    - *Refer to the **Changing the Workflow** Reference Guide for assistance with placing the new screen within the selected workflow.*

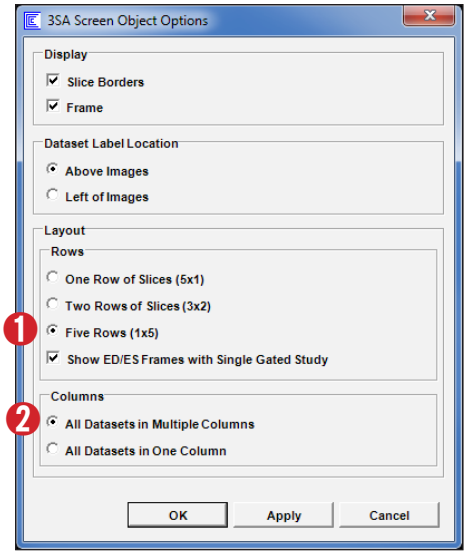

Figure 16. 3SA Screen Object Options window

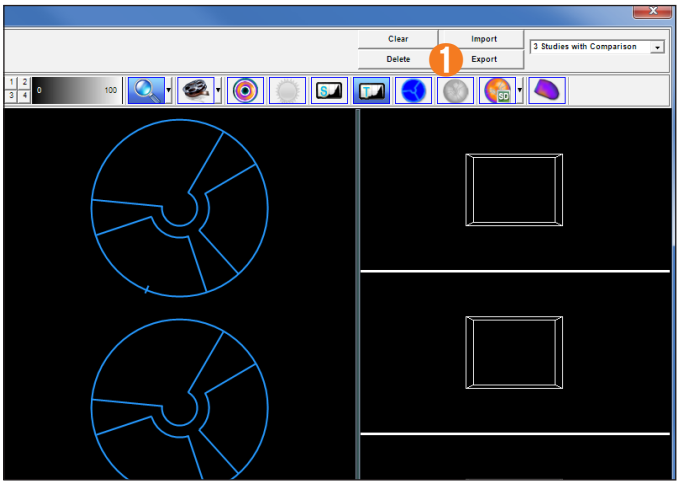

Figure 17. 3 Studies with Comparison Selection & Export screen button