Multi Modality Tumor Tracking

Purpose

Multi Modality Tumor Tracking (MMTT) is a post processing software used to display, process, analyze and quantify anatomical and functional images, for CT, MR, PET/CT, SPECT/CT and Dual Energy CT at one or multiple time points.

Benefits

- Enhanced semi-automatic volumetric segmentation
- Selectable oncology response criteria including standards such as RECIST 1.0, RECIST 1.1, WHO, CHOI, PERCIST, irRC and mRECIST, as well as PET SUV analysis including glucose-corrected SUV.
- Findings can be shared with other IntelliSpace Portal applications such as CT Liver Analysis and CT Viewer or exported in different formats including RT Structures.

Before you begin

Identify a selection of CT, PET, SPECT, or MR data series to compare.

Workflow

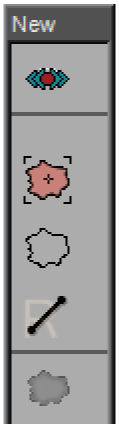
To process a study:

1. Select the appropriate studies for a patient and click Tumor Tracking

Note

Tumor Tracking opens in the last used protocol for specific combination of modalities.

2. To change the layout, click the drop-down arrow next to (**Layout**) and select the appropriate layout.
3. In the Presets : (**Presets** drop-down list), select the appropriate protocol for the images loaded.
4. Register the images:
   - **Automatic Registration** occurs when a CT dataset is loaded. The (**Register Studies**) button becomes active when registered. Click in the CT Viewer and scroll the image to confirm the registration.
   - **Manual Registration** for all non-CT datasets. Click (**Begin manual registration**). Scroll images to matching slices, click the same area on both sets of data to mark anatomical location. Then click ✓ (**Apply registration**).
5. To identify lesions within the studies, use the floating **New** menu and select the method you want to use to draw ROIs.



Note

Click (**Focus mode**) for close up view. Lesions may be drawn on the standard viewing layout or by clicking (**Single time-point**).

6. Draw the ROI on the preferred image.

> **Note**
>
> The ROI is marked under **Lesion** as L1, L2, etc.

7. To rename the ROI, right-click the name and select **L# Properties…**.
8. In the **Lesion Properties** window, rename the lesion in the **Label** field and under **Type** identify if the ROI is a tumor, lymph node, target, non-target, or not set.

> **Note**
>
> Lesions must be identified as tumor, lymph node, or non-tumor in order for the RECIST results to be on the results table.

9. Click OK to close the **Lesion Properties** window.
10. Select matching lesions from multiple time points and click (**Match lesions**).
11. Next to Segmentation, click → (the Forward arrow) to move to stage 2, **Results**.

    The results of the lesion measurements should populate into the results graph and table as preset.

12. Do one or more of the following:
    - To save results, click ⌄ (**Save Results**).
    - To bookmark the images, click (**Bookmark**) and set the bookmark in the **Save Bookmark** dialog box.
    - To send the final images to the reporting package, click ⌄ (the drop-down arrow) next to the displayed **Reporting** option and click (**Report Results**).

Limitations of Liability

Educational use only

Terms of use