MR Subtraction

☑ Purpose

The MR Subtraction package can be used to perform pixel-wise image calculations, such as subtracting a pre-contrast dynamic scan from the consecutive post-contrast dynamic scans in order to observe the contrast-uptake. A preview is available which shows the resulting image for the current scan/scans. New imaging series can be easily generated and stored.

This Quick Steps provides an optimal workflow scenario. Please keep in mind that this application has additional workflow steps and functionality, which is detailed in the *Instructions for Use* and is not intended to substitute or replace the *Instructions for Use*.

⊙ Before you begin

The components Source and Reference can be images of one scan, but also images of different scans. To perform calculations with the Reference and Source, they have to have the same slice distance (slice thickness and slice gap), FOV, and patient position.
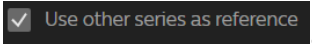
By default, the package opens in a 3-viewport layout. The upper left viewport is the Source, or what you will be subtracting from. The lower left viewport is the Reference, or what you will be using to subtract with. The right viewport is the preview of the subtraction with applied weighting factor.

Workflow

Launch the MR Subtraction Application

If you selected a multi-dynamic series, the system automatically loads the first dynamic as the Reference and the remainder of the dynamics as the Source.

1. If you want to select the Reference image, click **✓ Use other series as reference** and identify the appropriate Reference series.

2. Click the **Operation** drop-down arrow and select the type of calculation you want to render.

   For this Quick Steps only Subtraction is demonstrated since it is the most commonly used calculation.

3. Adjust the weighting of the subtraction by selecting the **Use weight factor** checkbox and by using the slider bar to adjust the weighting.

4. Click **Generate Series**

5. In the File Name field, type a name and click **Save Maps**.

6. On the right side of the toolbar, select one or more of the following:

   – To save the images, click Save Images as...

   – To film the images, click Film Selected Image