

# 14 MR Echo Accumulation

The MR Echo Accumulation package can be used to perform pixelwise echo cumulations. A preview is available which shows the resulting image for the current series. New imaging series can be easily generated and stored.

The package provides the possibility to perform echo accumulation for imaging series with multiple echoes.

## Cumulation

- Result = Sum of multiple echoes

## Valid imaging series

A valid imaging series is a series with multiple echoes.

## Indications for Use

MR Echo Accumulation enables the calculation of new images based on the selected sum of echo times, of MRI series with multiple echoes.

## User Interface

### Screen layout

The MR Echo Accumulation package has a default layout of two viewports with toolbar and panels. The viewports display the following images:

- Source image in the middle of the imaging volume.
- In real-time calculated image.

### Task Guidance

Similar to all packages on the IntelliSpace portal, also the MR Echo Accumulation package provides a Task Guidance panel in the left part of the screen. The task guidance panel provides the following steps:

- Set Range for accumulation
- Generate series

**Follow the steps of the Task Guidance to make optimal use of the package.**

The following workflow description is based on this Task Guidance.

## Toolbar



**More / Mirror**

This function mirrors the image(s) (Right <-> Left)



**More / Flip**

This function flips the image(s) (Up <-> Down)



**More / Rotate Clockwise**

This function rotates the image(s) clockwise



**More / Rotate Counter-Clockwise**

This function rotates the image(s) counter-clockwise

## More Functions within the MR Echo Accumulation package

In IntelliSpace Portal MR packages, the most important functions can be performed via the Task Guidance and the toolbar. However there are more functions which you can access via the right mouse menus.

For more information, see section “Right mouse menus” on page 12.

## Workflow

### Launch the MR Echo Accumulation package

The Echo Accumulation package requires a data set with multiple echoes.

▷ In the 'Directory' tab of the activity bar:

1. Select a suitable series.
2. Click 'MR Echo Accumulation'.



The MR Echo Accumulation package opens.

### Select Range for Accumulation

You may either choose to do the operation using all echoes or you may select a range of echoes.

By default, all echoes will be accumulated.

### Set Range for Echo Accumulation

1. Drag the outer edges of the slider bar to define the range.  
The selected echoes will be indicated by number on the bottom of the bar.

### Generate Series

You can generate a new imaging series containing the results as defined in the previously described workflow.



1. Click 'Generate Series'.
2. Enter the name of the new imaging series.

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