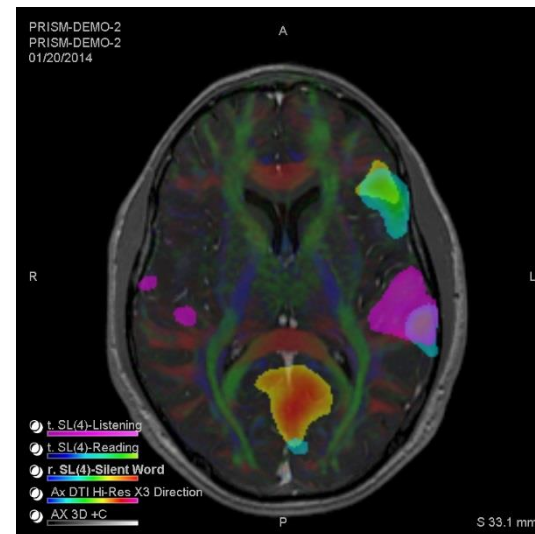


# Supplement 189: Parametric Blending Presentation State Storage



# Overview

- **Objective**
- **Input data**
- **Blending operation**
- **Example**

**Allowing to show spatial relationship of the parametric maps and structural images without loosing the ability to use:**

- **Geometry**
- **Spatial and Parametric Information**
- **Thresholds**

**Major usage for Surgery and Therapy planning  
Is Modality independent**

**Describing the different information sets that will be blended:**

- **Structural dataset(s) for anatomy**
- **Parametric Maps for Functional Information**

- **Apply Threshold to highlight the important areas**
- **Supports the use of the Color information in the input datasets**
- **Blends the different datasets in specified order without losing the color information**

## Requires Frame of Reference

### Supports usage of

- **Padding**
- **Graphics overlays**
- **Segmented Color LUT description**
- **Real World value measurements**

**Expects CP 1584 to be finalized for color support in Parametric maps.**

**Use case is brain mapping for pre-treatment planning.  
The goal is to visualize white matter, eloquent cortex  
for language with respect to the anatomy**

- **White matter is done by Color DTI**
- **Eloquent cortex is done by multiple language fMRI paradigms**
- **Anatomy is post contrast T1**

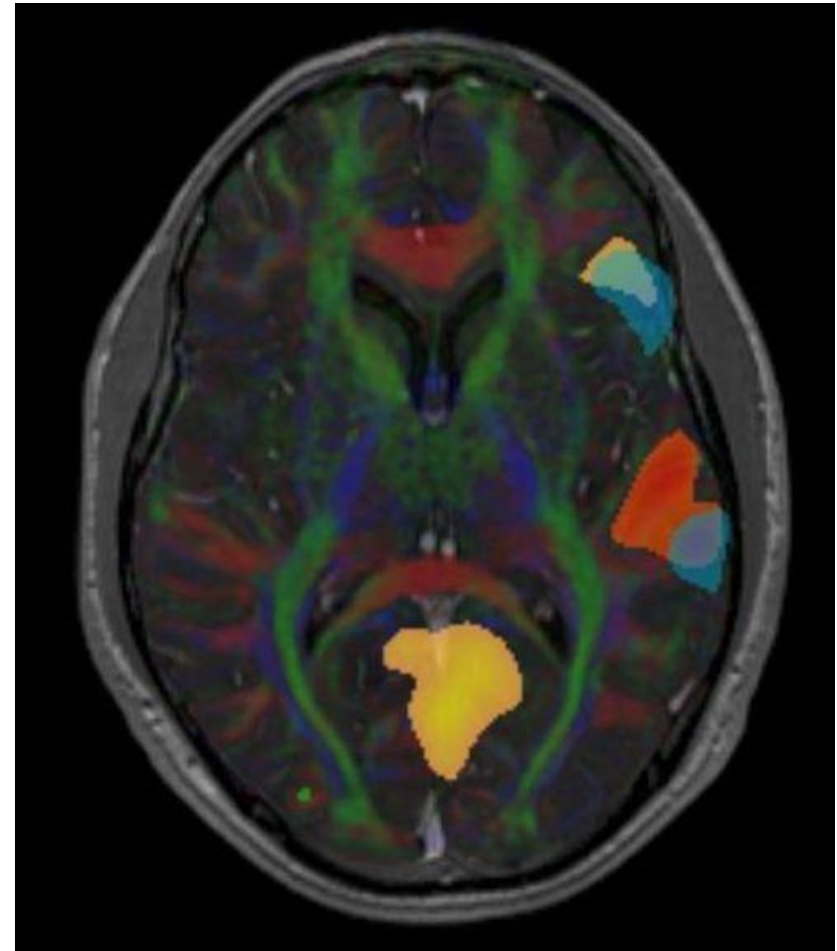
# Example Result

## View combining:

- Anatomical image
- 3 parametric maps
- DTI map

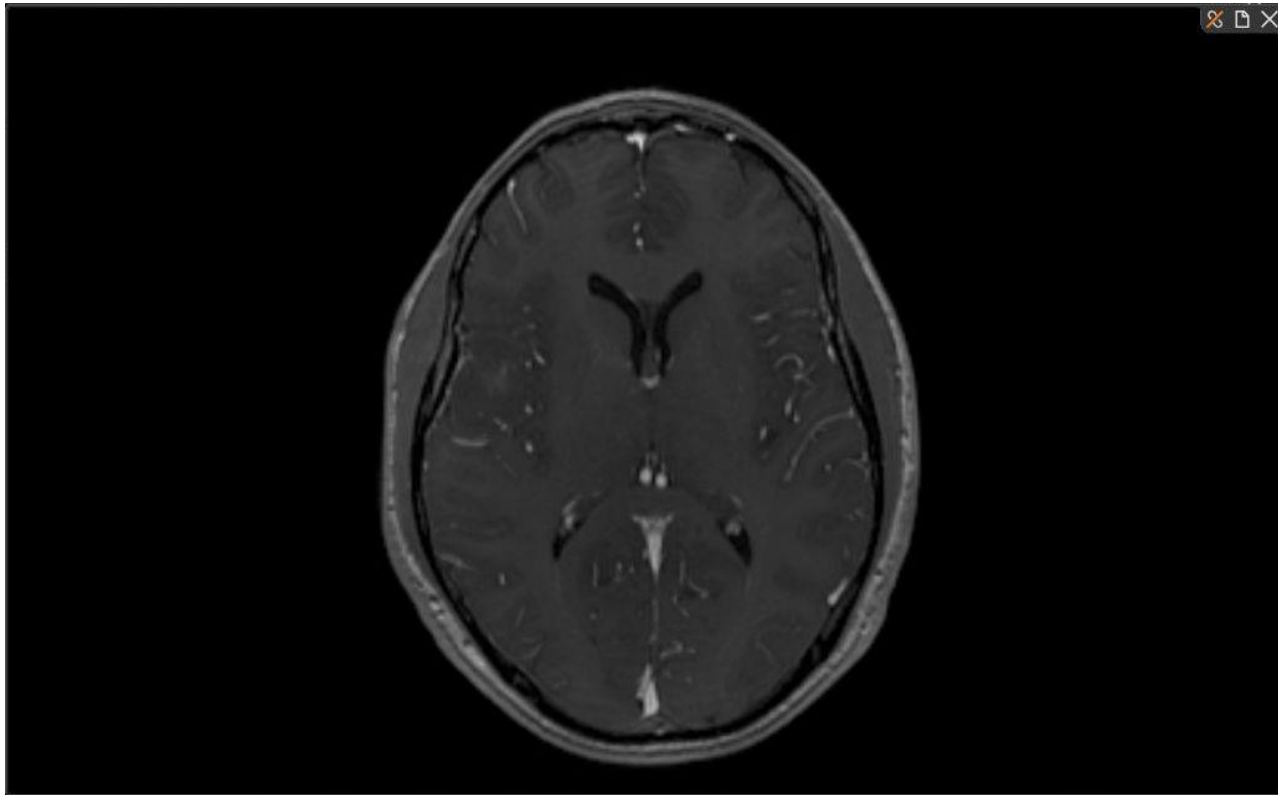
## Using:

- Thresholds
- Opacity

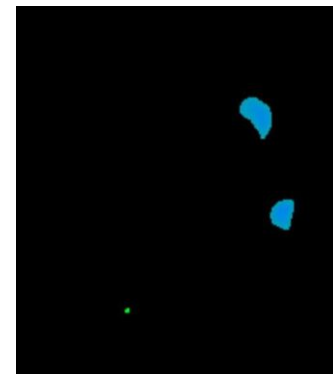
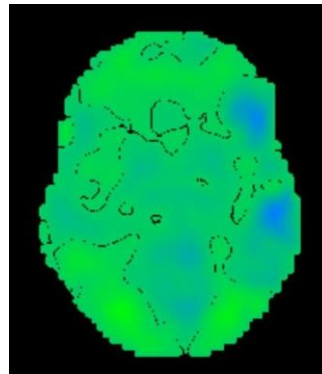
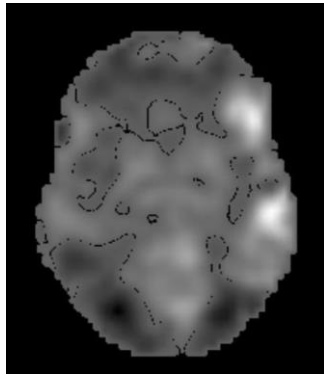




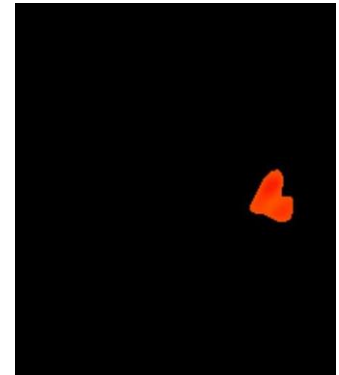
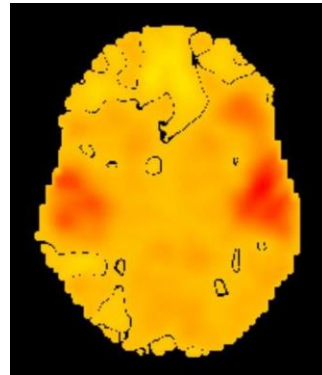
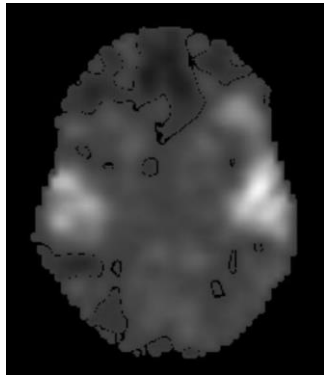
- **Anatomical**



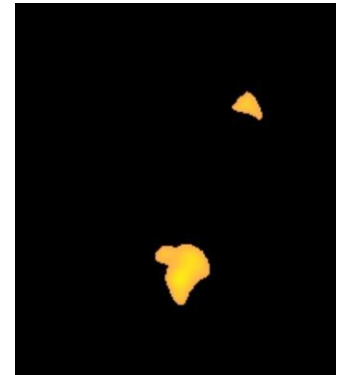
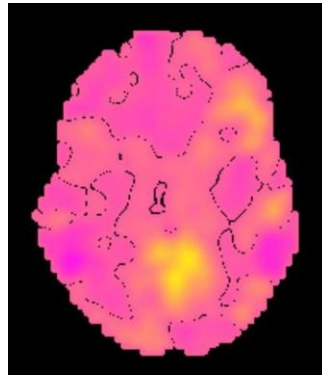
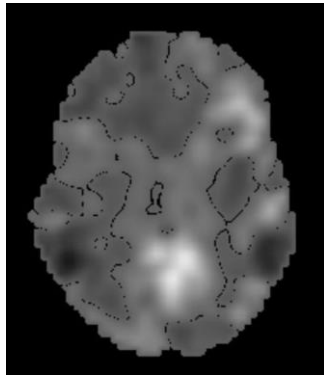
- **Parametric map showing coloring and applying threshold coloring of the image**



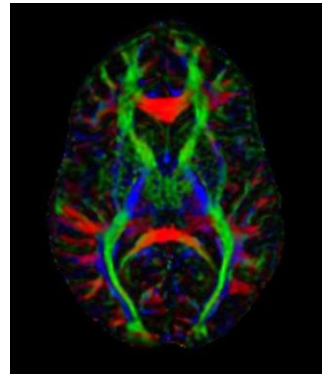
- **Parametric map showing coloring and applying threshold coloring of the image**



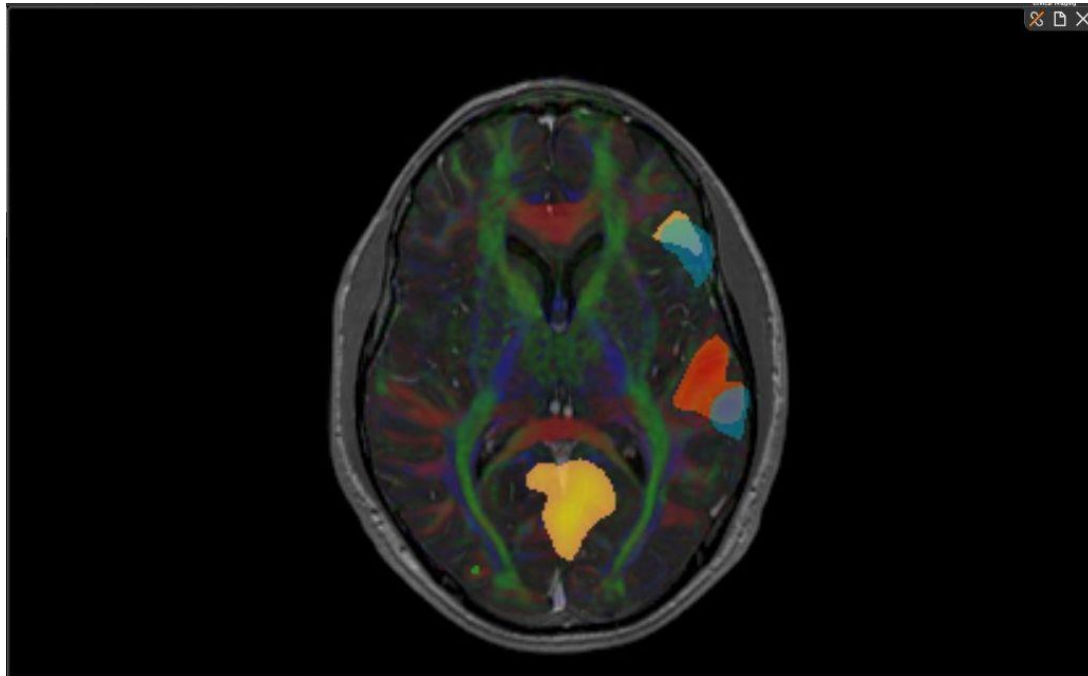
- **Parametric map showing coloring and applying threshold coloring of the image**



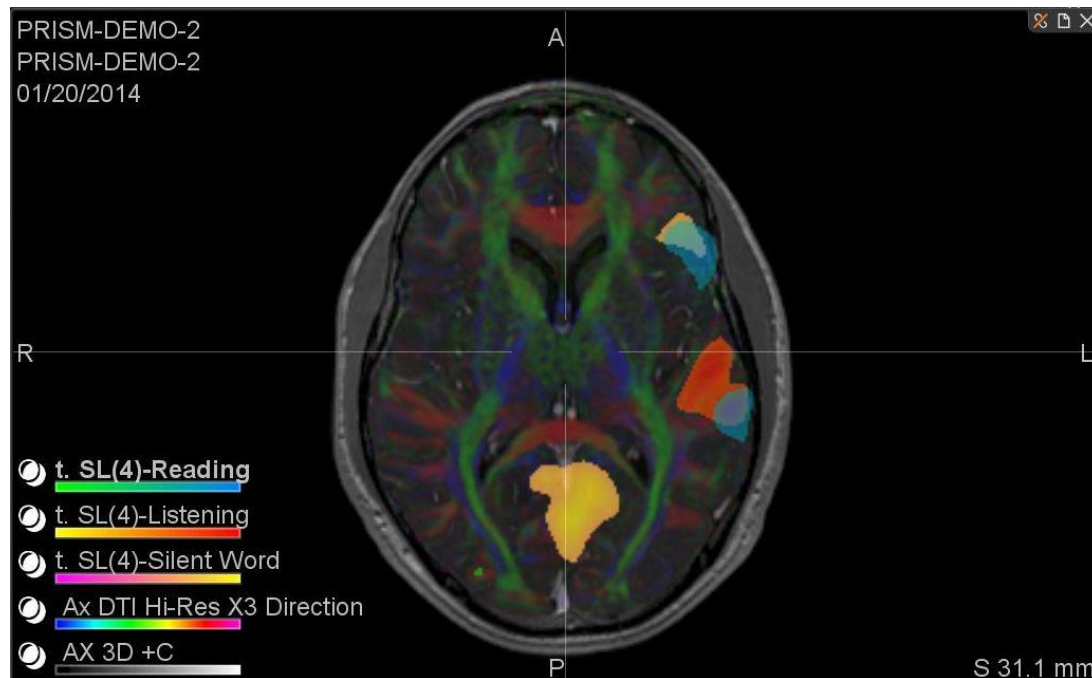
- **RGB image showing the DTI information having no threshold**



- **Result view after blending of the different images**



- **Result view after blending of the different images with application added information.**



# What is not specified

- **The algorithms used to make the different spatial datasets map to each other**
- **Windowing of gray scale information before it is colored and blended**