

Programming structure of project **Alternately Updating Motion and Image SART**

Components

1. Projection operations
 - ☒ .cu codes
 - ☒ .h codes.
 - ☐ test program
2. Backprojection operations
 - ☒ .cu codes
 - ☒ .h codes.
 - ☐ test program
3. Mathematics operations
 - ☒ Add
 - ☒ Division
 - ☒ Initial
4. Deform operations
 - ☒ .cu codes
 - ☒ .h codes.
 - ☐ test program
5. UDVF updating operations
 - ☒ .cu codes
 - ☒ .h codes.
 - ☐ test program
6. Stopping criteria
 - ☐ stopping criteria for motion model updating
 - ☐ stopping criteria for image updating

Pseudo Codes

1. Use regular *SART* to obtain blurred image from no-motion-model *SART* with components 1,2,3 only, for $n1$ times.
2. Update motion model, by iteratively applying projection process on every angle, for **n2** times max. set a stop criteria
3. Update image, with estimated motion model, for **n3** times maximum. set a stop criteria.

Note we need to monitor the error on projection.