Visualisierung Medizinischer Daten Direct Volume Renderer

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Outline



- Transfer Function
 - Qt Widget
- Filter
 - Gaussian
 - Bilateral
 - Median
 - Gradient
- Direct VolumeRendering
 - VTK
 - OpenGL

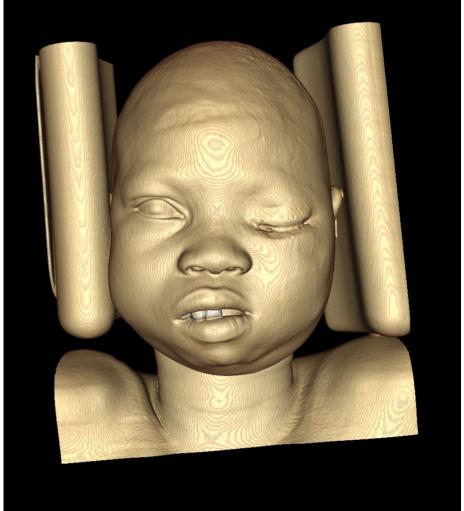




Transfer Function



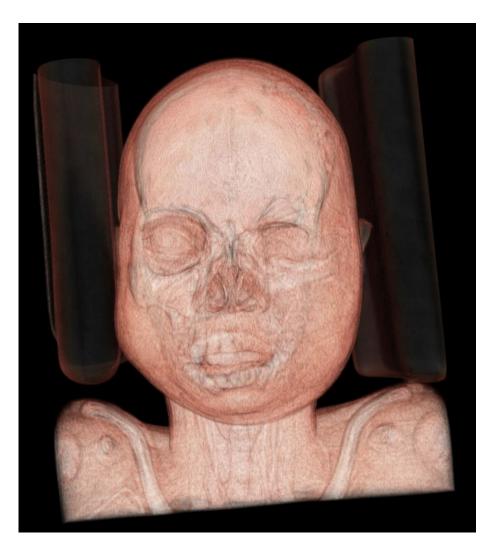


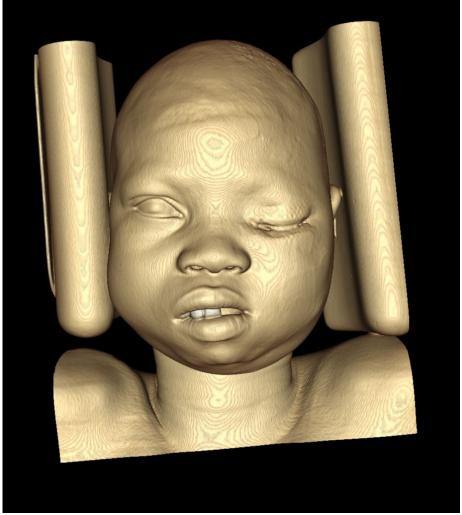




Transfer Function



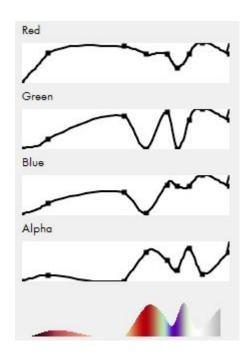


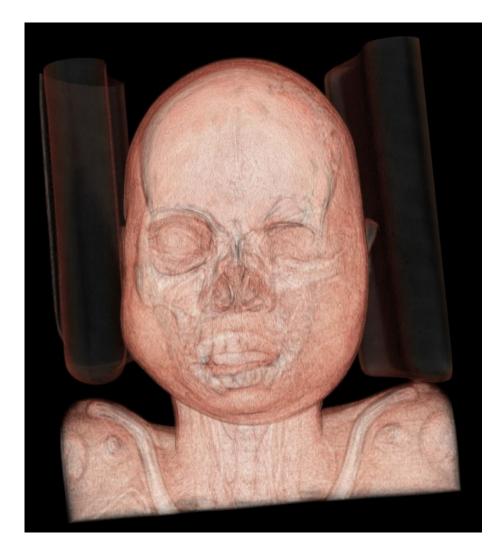




Transfer Function Widget



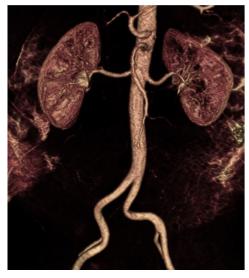






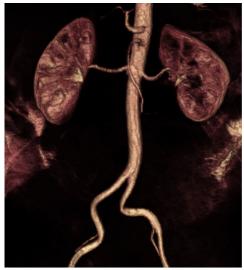
Filter







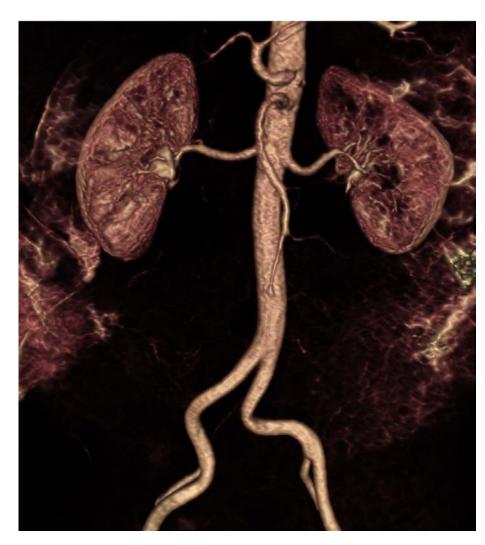


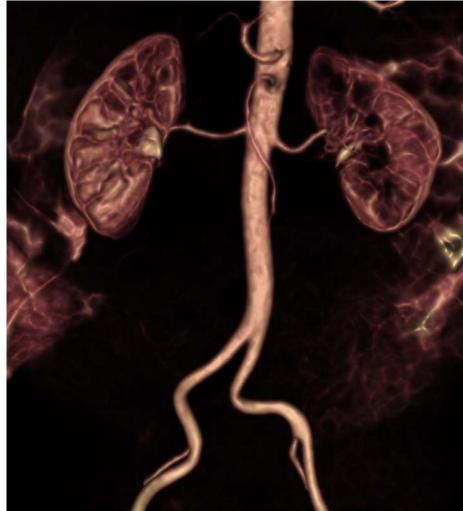




Gaussian Filter



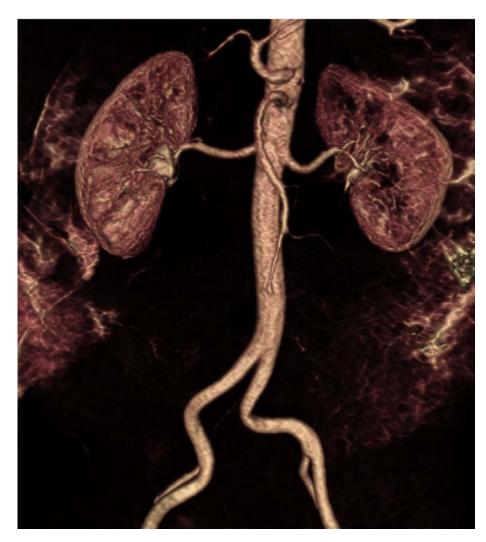






Bilateral Filter



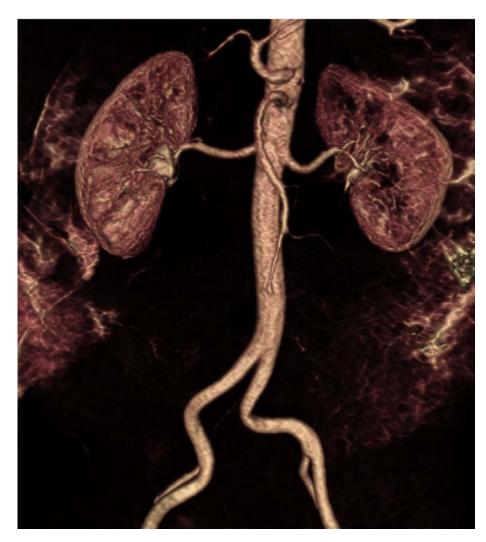






Median Filter 5x5



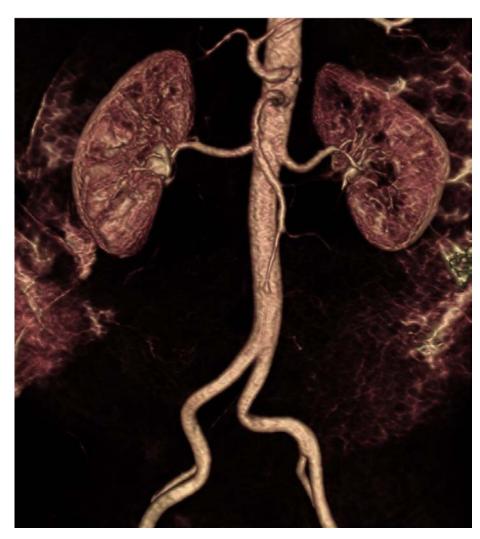






Median Filter 3x3









Gradient Filter





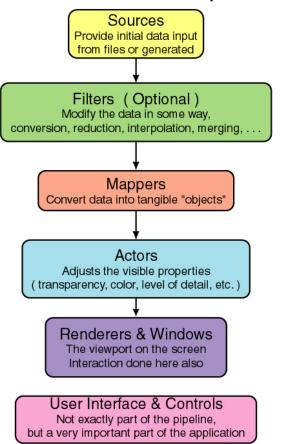




DVR



VTK Visualization Pipeline







DVR



- Great Visualization Tool BUT:
 - Hard to get it running on windows
 - Hard to implement abstract classes
 - Hard to connect with QT





DVR



- Lessons Learned:
 - Great piece of software
 - Very easy to fulfill easy tasks
 - Don't try to add or change something.
 - It is already somewhere and you just have to find and include it.





Demo



- Real Time
- Interactions
- Demo

