

# QAngio<sup>®</sup> XA 3D 1.2 with QFR<sup>®</sup>, product specification sheet

A Medis<sup>®</sup> Suite XA App

## Product Specification Sheet

The accurate 3D QCA reconstruction offered by QAngio XA 3D is the backbone for subsequent analyses, such as the physiologic assessment (QFR) of coronary obstructions. QAngio XA 3D is the analytical software solution for the reconstruction of a coronary artery from two X-ray angiographic projections at least 25 degrees apart, either from a biplane acquisition or from two monoplanes acquisitions, and the subsequent QCA analysis of clinically relevant parameters of coronary obstructions.

### Data import and DICOM connectivity by Medis Suite XA

- Data repository
- Patient selection browser
- From any storage media (Hard disk, USB disk, CD/DVD, network share)
- Directly from either PACS or X-ray angiographic systems
- Automatic series loading into the application
- Works with DICOM images from all major imaging vendors

### Viewing

- Full 2D angiography DICOM viewer
- 2D and 3D viewing of (arterial and reference) vessels and lesions
- Marker synchronization between 3D QCA diameter- and QFR “pull-back” graphs vs. 2D and 3D angiographic views
- ECG display and synchronization with 2D angiographic views

### 3D QCA analysis workflow

- Is based on isocenter calibration
- Efficient angiographic series selection by presentation of applicable pre-acquired angiographic views (> 25° apart)
- Efficient acquisition guiding tool to suggest optimal viewing angles for the next acquisition in online situations
- Automated optimal viewing angles calculation
- Offset correction
- Automated 2D arterial (luminal) contour segmentation based on the proven Medis 2D QCA
- Automated 3D reconstruction of the arterial contours
- Automated 2D and 3D reconstruction of reference contours
- Automated 3D lesion quantification
- Lesion foreshortening calculation for the original 2D projections and the current 3D view
- Widgets guide you step-by-step through the entire 3D reconstruction and QFR assessment process

### 3D QCA analysis results

- Lumen and plaque statistics:

- Severity of stenosis (diameter and area)
- Minimum lumen diameter (MLD)
- Proximal and distal minimum and maximum diameters (at P- and D-marker positions)
- Display of 3D reference volume along entire segment
- Lesion length
- Bending angle
- Five optimal views with minimum lesion foreshortening

## QFR (Quantitative Flow Ratio) analysis results

- Physiology
- QFR “pull-back” curve along coronary segment for visual identification of pressure drops
- QFR values along entire analyzed vessel segment calculated from 3D QCA according to 3 different flow velocity models:
  - Fixed flow velocity: fixed flow QFR;
  - Basal flow without hyperemia using contrast frame count: basal QFR;
  - (Adenosine-induced maximum hyperemia using contrast frame count: hyperemic QFR. Behind a separate lesion).
- Four different QFR indices along the analyzed coronary segment:
  - Vessel QFR: The QFR value at the distal location of the analyzed vessel segment;
  - Index QFR: A point which can be moved along the QFR pullback curve
  - Lesion QFR: The contribution to the QFR drop by the selected lesion alone
  - Residual vessel QFR: And indication of the Vessel QFR, if the selected lesion is resolved.

## Data export

- All analysis results including the 3D reconstruction data and the QFR data can be saved and reloaded again in the same application for reviewing or export function;
- Quantification results can be exported as a graphical report in PDF and DICOM PDF \ Secondary Capture format. Results can also be copied to the clipboard in textual format.
- Screenshots can be included in the report, exported to local storage media, or can be copied to the clipboard.

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QAngio XA 3D is cleared for market in Europe

QAngio XA 3D has not received US 510(k) market clearance and is not available for sale in the US. If you are located in the US and are interested in this solution for scientific research purposes, please contact [us-sales@medis.nl](mailto:us-sales@medis.nl).

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