

Medis[®] Suite MR 3.2

Product Specification Sheet

M-MSP: Medis Suite Platform

(viewer, connectivity, reporting)

- Support for Cardiac MR studies of all major MR vendors
- Access to Cardiac MR studies across the network
- Import of cardiac MR studies from local storage media (hard disk, USB, and CD/DVD)
- DICOM connectivity, receiving cases, query and retrieve, pushing results to PACS
- Centralized database, thick client solution possible with multiple clients
- JPEG2000 and enhanced MR support
- **NEW: AutoQ for preprocessing data**
- Review series side by side, drag 'n drop series into the viewer, cross referencing tools, fast paging through series, simple caliper measurements
- Enhanced workflow, run multiple apps in parallel
- Loading of prior exams in parallel
- Enhanced clinical report, combining all measurements in a single report, snapshots, add comments, save as
- PDF, view in text format. Clinical XML and JSON output.
- **New: DICOM SR output for LV and RV function results**
- New: User Log in

M-MGM: QMass Global Function module

(MR)

- Guided workflow
- LV and RV function analysis
- Global function analysis (Simpson's method) on short axis or transversal stack of cines
- Quantification of custom volumes, such as atrial volumes
- Area-length and Bi-plane volumetric analysis methods for long axis cines
- **NEW: LV + RV contour detection based on deep learning**
- Semi-automatic contour detection for RV endocardium
- "LiveContour" algorithm to quickly detect endocardial contours
- "Time-Continuous" contour detection
- Automatic exclusion of images in short axis based on information in long axis
- Auto-detection of papillary muscles and trabeculae with "MassK mode"
- Quantification of EDV, ESV, SV, %EF, CO, CI, indexed values (BSA and height), (time to) peak filling and ejection rate
- Various BSA calculation methods for indexed results
- Various normal ranges possible, calculation of z-scores

M-MRM: QMass Regional Function module

(MR)

- Analysis of regional parameters, such as wall motion, wall thickness, wall thickening and wall thickness changes over time

M-DCE: QMass Delayed Signal Intensity (DSI) module

(Infarct size, T2w analysis, combined DSI-T2w analysis)

- Guided workflow for automatic infarct tissue quantification
- Transfer contours from short axis cine stack
- Various automated threshold calculation methods
- Automatic infarct detection
- Quantification of infarct size (% and mass), infarct transmuralty
- Quantifying regions of hyper-, intermediate and hypo-intense signal intensities
- Threshold per slice or per sequence of slices
- T2-weighted analysis, combined DSI-T2-weighted analysis
- T2-ratio

M-MSU: QMass Time Signal Intensity (TSI) module

- Enhanced Contour registration to correct for breathing motion
- Baseline correction methods
- Automatic calculation of relative upslope
- Upslope curves per myocardial segment and user defined ROI's
- Set transmural range for measurement of subendocardial and subepi-cardial perfusion curves

M-TTM: QMass T2/T2star analysis module

- Fast quantification of T2* decay time and decay rate
- Color overlay
- Correct for breathing motion

M-TOM: QMass T1 analysis module

- Calculation of T1 relaxation time in MOLLI and Look Locker sequences
- Calculation of residual maps
- Color overlay
- Correction for breathing motion

M-FLX: QFlow app

- Phase-contrast MR blood flow analysis
- Automatic contour detection
- Copy of contours in forward and backward direction
- Various background correction methods to correct for flow-induced artifacts, "Stationary Flow Fit" and "Phantom Correction"
- Phase unwrapping to correct for aliasing
- Color-coding to visualize velocities
- Calculation of velocities and volumetric blood flow in up to 4 ROI's
- Automatic calculation of regurgitant fraction and volumes
- Display of min and max velocity pixels
- Calculation of maximum pressure and mean systolic pressure gradient
- Quantification of CSF flow

NEW: M-4DV: QFlow 4D app

- Simple MPR tool (multi planar reformatting)
- Single click noise removal
- Single click Background offset correction (1st, 2nd & 3rd order)
- Color overlay displaying the speed
- Allow launching of QFlow quantification of volumes, regurgitant fraction and peak flow velocity (see M-FLX QFlow app, separate license)
- **New: Streamlines and vectors**
- **New: review flow as overlay on Cine SSFPs in 2D**

M-MRA: 3DView app

- Viewing 3D MR and CT Angiography series, double oblique viewing, MPR, MIP, slabbed MIP, VR
- **NEW: CPR (Curved Planar Reformatting)**
- Efficient caliper measurements. NEW: double distance measurement
- Sculpting (isolating custom volume of interest)
- Create reformats
- Add temporal resolution

M-CCT: QMass Global Function module, CT add-on

- Enables Global and Regional analysis for CT

MS-ECV: QMap ECV, for research use only

- Create parametric maps for T1-ECV
- Quantification of delta T1 (pre and post adenosine stress exams)
- Supports LL, MOLLI, SR, console generated maps
- Correction factor
- Offset, scaling, fit residual error
- Display of relaxation graphs
- Flexible manual motion correction
- Flexible co-registration of T1 native (pre-contrast) and T1 post-contrast maps
- Comprehensive results for myocardial segments and up to 4 ROI's and segments
- AHA 16 segment model results and bull's eyes
- Save maps as DICOM
- Save results to MS-Excel

MS-REL: QMap T1&T2 Relaxometry, for research use only

- Create parametric maps for T1, T1*, T2 and T2*
- Supports LL, MOLLI, SR, T2 prep and console generated maps
- Correction factor
- Offset, scaling, fit residual error
- Display of relaxation graphs
- Flexible manual motion correction
- Flexible co-registration of T1 native (pre-contrast) and T1 post-contrast maps
- Comprehensive results for myocardial segments and up to 4 ROI's and segments
- AHA 16 segment model results and bull's eyes
- Save maps as DICOM
- Save results to MS-Excel

M-SMR: QStrain MR, for research use only

- Quantify strain in RV 4 Chamber, Atrial 2 Chamber, LV long and short axis orientations based on feature tracking in SSFP images
- Quantification of Global strain parameters: GLS, GCS, GRS and Fractional Area change
- Quantification of delta rotation
- Quantification of 16 segment AHA strain parameters: Strain, Strain Rate, velocity
- Quantification of RV segmental (septum and free wall) strain parameters: Strain, Strain Rate, velocity
- Generate results for endo, mid and epicardial wall
- Generate detailed results and export to MS-Excel
- Ability to re-use contours from QMass for strain quantification
- **NEW: M-SCT: QStrain CT add-on, for research use only**
- **NEW: Enables strain analysis for CT and includes all features as listed under M-SMR**



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	Modules	Packages		Add-ons			
		Full Edition	Premium Edition	4D Flow	Strain for Research	Mapping for Research	
Medis Suite MR	Clinical	3D View	✓	✓			
		Function Global	✓	✓			
		Function Regional	✓	✓			
		DSI	✓	✓			
		TSI	✓	✓			
		T2/T2*	✓	✓			
		2D Flow	✓	✓			
		4D Flow		✓	✓		
	Research	T1		✓			✓
		T2/T2*		✓			✓
		ECV		✓			✓
		Strain LV		✓		✓	
Strain RV and Atrium			✓		✓		



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Medis Suite, QMass, QFlow and 3DView are cleared for market in the US, Canada, Japan and Europe. 4D Flow is cleared for market in the US.
4D Flow Market clearance approvals for Australia, Brazil, Canada and Europe are pending.

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