



Medis® Suite MR 3.1 product specification sheet

Including the following apps: QMass®, QFlow®, 3DView, QMap RE and QStrain RE

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 output and **NEW: JSON output**

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: deep learning based fully automatic contour detection of LV endo- and epicardium.** 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 transmuralità
- 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
- **NEW: 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 subepicardial 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

M-MRA: 3DView app

- Viewing 3D MR and CT Angiography series, double oblique viewing, MPR, MIP, slabbed MIP, VR
- Efficient caliper measurements
- Sculpting (isolating custom volume of interest)
- Create reformats
- **NEW: 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

- 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

- **NEW: Enables strain analysis for CT**
- Includes all features as listed under M-SMR



Medis Suite MR Packages		Essentials	Basic Edition	Full Edition	Premium Edition	
Clinical	QFlow	V		V	V	
	3DView			V	V	
	QMass	Function Global	V	V	V	V
		Function Regional			V	V
		DSI		V	V	V
		TSI			V	V
		T1			V	V
		T2/T2*			V	V
Research	QMap	T1			V	
		T2/T2*			V	
		ECV			V	
	QStrain	MR Strain for LV, RV and LA				V
Packaging is flexible. More options are available. CT functionality available as an add-on.						

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Medis Suite, QMass, QFlow and 3DView are cleared for market in the US, Canada, Japan and Europe.

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