

# PHILIPS

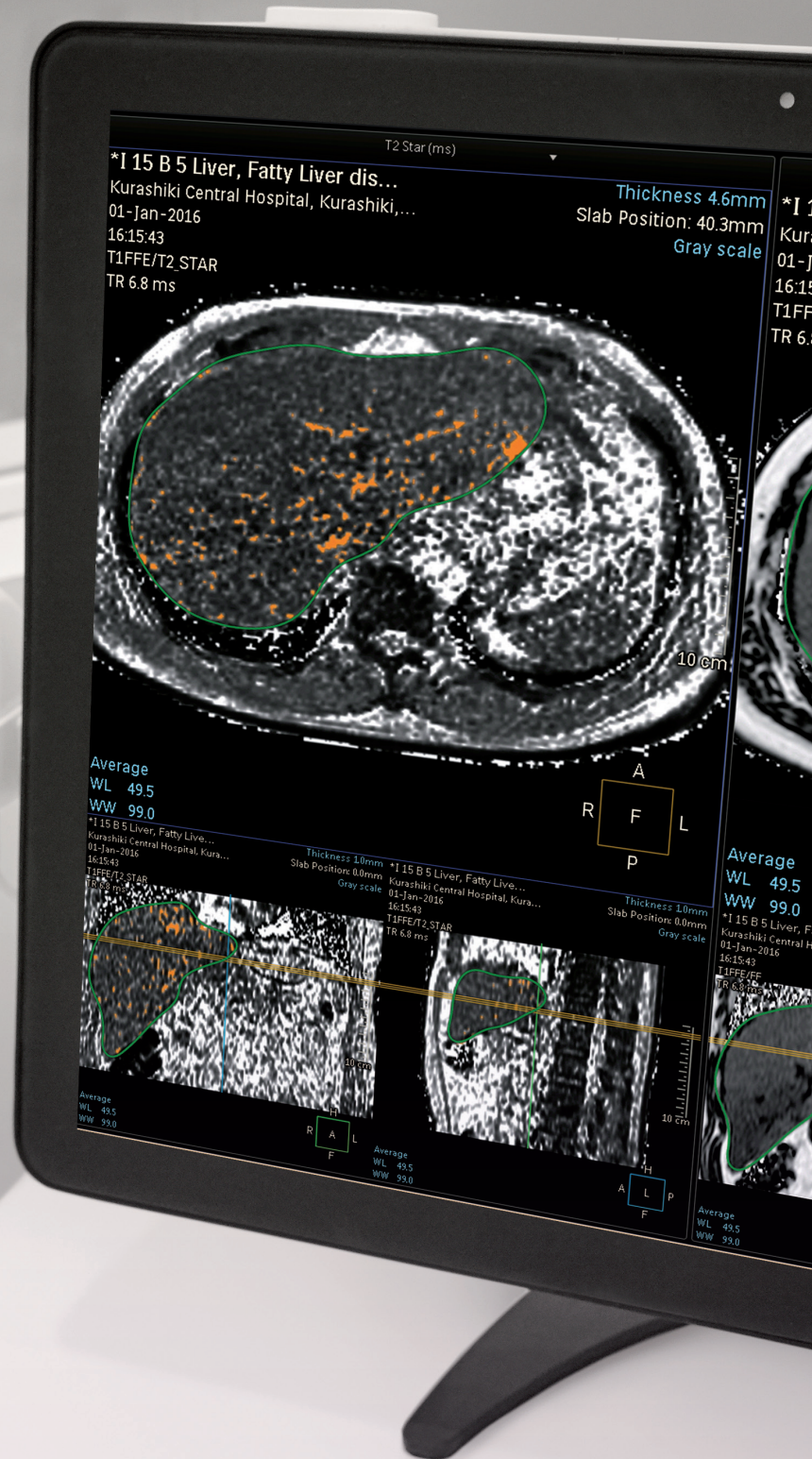
IntelliSpace Portal 11

Clinical Datasheet



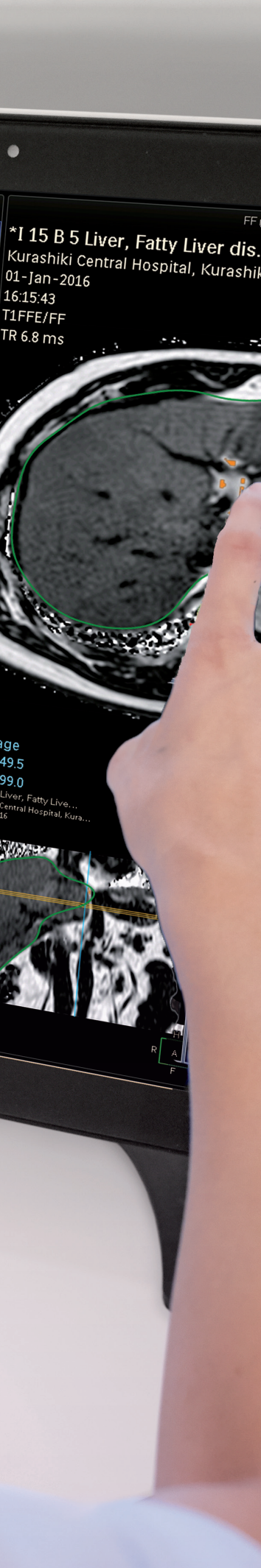
All your advanced analysis needs  
**One comprehensive solution**





# Contents





## A single solution for the most complex patients

Introduction  
Key advantages

## Clinical focus areas

New in IntelliSpace Portal 11  
Oncology  
Cardiology  
Neurology

## Multi-modality applications

● Zero Footprint Viewer<sup>(1)</sup>  
● Multi Modality Advanced Vessel Analysis (AVA)  
3D Modeling  
Multi Modality Tumor Tracking (MMTT)  
Multi Modality Viewer (MMV)  
Multi Modality Tumor Tracking qEASL

## CT clinical applications

● CT Comprehensive Cardiac Analysis (CCA)  
● CT Calcium Scoring  
CT Brain Perfusion  
CT Cardiac Viewer  
CT Dual Energy Viewer  
CT Lung Nodule Assessment (LNA)  
CT Virtual Colonoscopy  
CT TAVI Planning  
CT Advanced Vessel Analysis (AVA) Stent Planning  
CT Acute MultiFunctional Review (AMFR)  
CT Body Perfusion  
CT Bone Mineral Analysis (BMA)  
CT COPD  
CT Cardiac Plaque Assessment  
CT Lung Nodule (CAD)<sup>(2)</sup>  
CT-MI Fusion  
CT Dental Planning  
CT Dynamic Myocardial Perfusion (DMP)  
CT EP Planning  
CT Liver Analysis  
CT Myocardial Defect Assessment  
CT Pulmonary Artery Analysis (PAA)  
VeraLook CAD<sup>(3)</sup>

## CT spectral applications

● CT Spectral Viewer  
CT Spectral Magic Glass on PACS  
CT Spectral Light Magic Glass  
CT Spectral Tumor Tracking  
CT Spectral Advanced Vessel Analysis  
CT Spectral Comprehensive Cardiac Analysis

● New application  
● Enhanced application

## MR clinical applications

4	● MR Liver Health	18
4	● MR Cardiac	18
	DynaCAD Breast <sup>(4)</sup>	18
	DynaCAD Prostate <sup>(4)</sup>	18
6	MR Advanced Diffusion Analysis (ADA)	18
6	MR QFlow	19
7	MR Cardiac Quantitative Mapping	19
7	MR Cardiac Whole Heart	19
	MR T1 Perfusion Analysis	20
	MR Longitudinal Brain Imaging (LoBI)	20
8	MR NeuroQuant <sup>(5)</sup>	20
8	MR T2* (Neuro) Perfusion	20
8	MR Cardiac Temporal Enhancement	20
9	MR Cartilage Assessment	20
9	MR Diffusion	20
9	MR Echo Accumulation	20
	MR FiberTrak	21
	MR IViewBOLD	21
	MR MobiView	21
	MR Permeability	21
	MR SpectroView	21
	MR Subtraction	21

## MI clinical applications

11	● NM Mirada Viewer <sup>(6)</sup>	22
11	NM NeuroQ <sup>(7)</sup> Amyloid	22
12	NM NeuroQ <sup>(7)</sup> 3.75	22
12	NM Corridor4DM <sup>(8)</sup> 2016	22
12	NM Cedars-Sinai Cardiac Suite 2015	23
12	NM Emory Cardiac Toolbox (ECTb) v4.1 <sup>(9)</sup>	23
12	NM Emory Cardiac Toolbox (ECTb) HeartFusion <sup>(9)</sup>	23
12	NM Emory Cardiac Toolbox (ECTb) SyncTool <sup>(9)</sup>	24
13	NM Astonish Reconstruction	24
13	NM JETPack Application Suite	24
13	NM Processing Application Suite	24

## US clinical applications

14	US Viewing (in MMV)	25
14	US Q-App Elastography Quantification (EQ) <sup>(10)</sup>	25
14	US Q-App Elastography Analysis (EA) <sup>(6)</sup>	25
14	US Q-App General Imaging 3D Quantification (GI3DQ)	25
	US Q-App Intima Media Thickness (IMT)	25
16	US Q-App MicroVascular Imaging (MVI)	26
16	US Q-App Region of Interest (ROI) <sup>(11)</sup>	26
17	US Q-App Vascular Plaque Quantification (VPQ)	26

## Optimize workflow

17	Optimize workflow across modalities	28
	Adaptive and responsive to your needs	28
	Information sharing	29
	Seamless PACS integration and beyond	29
	One solution that grows as you grow	29
	Make the most of your advanced analysis	30
	With Philips real time assistance	30

<sup>(1)</sup> Zero Footprint Viewer is not for diagnostic use.

<sup>(2)</sup> CAD functionality is not available for sale in the US.

<sup>(3)</sup> VeraLook is a trademark of iCAD inc. and is available for for sale only in the US

<sup>(4)</sup> DynaCAD are registered trademarks of InVivo Corporation

<sup>(5)</sup> NeuroQuant is a trademark of CorTechs Labs, Inc.

<sup>(6)</sup> Mirada is a registered trademarks of Mirada inc.

<sup>(7)</sup> NeuroQ is a trademark of Syntermed

<sup>(8)</sup> Corridor4DM is a registered trademark of Invia, LLC.

<sup>(9)</sup> Emory Cardiac Toolbox, ECTb, HeartFusion, and SyncTool are registered trademarks of Emory University

<sup>(10)</sup> Not available for sale in the US

<sup>(11)</sup> Ultrasound contrast agents are approved for use in Left Ventricular Opacification (LVO) applications ONLY in the USA

# A single solution for the most complex patients

Philips IntelliSpace Portal 11 is an advanced visualization platform that offers a single integrated solution to help physicians work quickly – especially for complex cases and follow-up.

## Key advantages

- Obtain a comprehensive overview of each patient; support quantification and diagnosis using multi-modality clinical applications accessed from any point of your network
- Take advantage of a broad range of leading clinical applications across multiple domains
- Focus more on patient's treatment thanks to workflow efficiencies and automatically adapting tools to the way you work



## All your advanced visualization needs – in one place

### **Multiple clinical domains, one standard for facilitating the diagnosis process**

IntelliSpace Portal 11 supports you to extend your clinical depth and coverage. Leverage a broad range of over 70 applications, including enhanced functionality designed by clinicians for clinicians. Spanning across clinical domains including oncology, cardiovascular, neurology, pulmonary and others, these applications offer exceptional flexibility to access, analyze, and quantify patient data in one unified view. IntelliSpace Portal 11 delivers multiple new and enhanced applications allowing you to experience the latest clinical innovations.

### **Multiple advanced tools, one consistent workflow**

Designed to optimize your workflow, IntelliSpace Portal 11 supports consistency across applications. It delivers enhanced prefetching and preprocessing tools that have been shown to cut complex patient analysis time by up to 77%<sup>(1)</sup>, task guidance, and context-based clinical decision support tools. Recently introduced machine learning capabilities that learn your preprocessing patterns and anticipate your usage patterns before you even open cases.

<sup>(1)</sup> Kadavigere, R., Maiya, M., Rao, V., Read, K. Standardized Results of CT Angiography Obtained with Automated Postprocessing Using a Dedicated Server: A Workflow Optimization Study. A collaboration of Philips Healthcare and Kasturba Medical College at Manipal University, India. Radiological Society of North America 2011 Scientific Assembly and Annual Meeting, November 26 - December 2, 2011, Chicago IL.



**Multiple modalities, one comprehensive view**

IntelliSpace Portal 11 handles CT, MR, MI, US, iXR, and DXR data even from multiple vendors<sup>(1)</sup> within a consistent multi-modality viewing environment, giving you a comprehensive view of your patient's condition from one chair. IntelliSpace Portal 11 includes a suite of applications from our first spectral detector based CT, the Philips IQon Spectral CT scanner, which supports both in-depth spectral information on demand and retrospective analysis.

**One solution for today and tomorrow**

Advanced analysis is changing rapidly. Stay at the forefront of clinical innovation available in IntelliSpace Portal with Philips SW Maintenance Agreement<sup>(2)</sup> which allow you to take advantage of a steady stream of clinical and IT innovations via IntelliSpace Portal. Including clinical support on demand and consulting services.

<sup>(1)</sup> Please contact your local Philips representative for details on multi-vendor coverage

<sup>(2)</sup> Consult your local Philips representative for information on SW Maintenance Agreement.



# Clinical focus areas

## New in IntelliSpace Portal 11

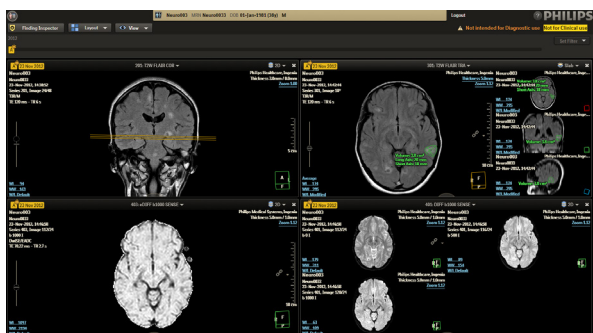
### NM Mirada Viewer<sup>(1)</sup>

NM Mirada Viewer is designed to support your clinical challenges and optimize your workflow, whether you wish to have productivity when reading your PET/CT and Nuclear Medicine studies or you need a solution for handling multiple studies with rigorous quantification.



### Zero Footprint Viewer<sup>(2)</sup>

IntelliSpace Portal Zero Footprint Viewer brings Advanced Visualization Viewing to the point of care, inside and out side the hospital, at reduced infrastructure costs. This HTML based DICOM viewer and peer-to-peer collaboration capabilities, supports productive communication between physicians.



<sup>(1)</sup> Mirada is a registered trademarks of Mirada inc.

<sup>(2)</sup> Zero Footprint Viewer is not intended for diagnostic purposes.

## Oncology

Cancer patients require constant vigilance. IntelliSpace Portal 11 provides superb tools to help you evaluate the stage and treatment response at multiple time points – and efficiently perform essential follow-ups. Advanced 3D visualization and quantification tools help you to present, and communicate clinical information to support diagnostic confidence and productive collaboration. MR based Pre-surgical evaluation is available in the enhanced MR Liver Health application.

### Oncology applications in IntelliSpace Portal 11

- NM Mirada Viewer<sup>(1)</sup>
- CT Spectral Viewer
- 3D Modeling
- DynaCAD Breast<sup>(2)</sup>
- DynaCAD Prostate<sup>(2)</sup>
- CT Virtual Colonoscopy
- CT Lung Nodule Assessment (LNA)
- CT Body Perfusion
- CT Liver Analysis
- CT Lung Nodule (CAD)<sup>(3)</sup>
- CT Spectral Magic Glass on PACS
- CT Spectral Tumor Tracking
- CT Virtual Colonoscopy CAD<sup>(3)</sup>
- MR Advanced Diffusion Analysis
- MR MobiView
- MR SpectroView
- MR Subtraction
- MR T1 Perfusion
- Multi Modality Tumor Tracking (MMTT)
- Multi Modality Tumor Tracking qEASL
- NM Processing Application Suite
- US Q-App General Imaging 3D Quantification (GI 3DQ)
- US Q-App Region of Interest (ROI)<sup>(4)</sup>
- VeraLook CAD<sup>(5)</sup>

- New
- Enhanced

<sup>(1)</sup> Mirada is a registered trademarks of Mirada inc.

<sup>(2)</sup> DynaCAD are registered trademarks of InVivo Corporation. Not available for sale in all countries. Please check for availability in specific countries.

<sup>(3)</sup> CAD functionality is not available for sale in the US

<sup>(4)</sup> Ultrasound contrast agents are approved for use in Left Ventricular Opacification (LVO) applications ONLY in the USA

<sup>(5)</sup> VeraLook is a trademark of iCAD inc. and is available for sale only in the US



# Cardiovascular

Diagnose and monitor cardiovascular diseases in a comprehensive manner. 3D models, maps, and other quantitative tools offer quick analysis support, designed to support diagnostic work. Bring advanced diagnostic imaging closer to the interventional suite by integrating your Allura/Azurion Interventional Suite with IntelliSpace Portal which automatically retrieves patient data from the portal for your scheduled patients.

## Cardiovascular applications in IntelliSpace Portal 11:

- NM Mirada Viewer<sup>(1)</sup>
- CT Calcium Scoring
- CT Comprehensive Cardiac Analysis (CCA)
- CT Spectral Viewer
- Modality Advanced Vessel Analysis (AVA)
- MR Cardiac
- 3D Modeling
- CT Advanced Vessel Analysis (AVA) Stent Planning
- CT Cardiac Plaque Assessment
- CT Cardiac Viewer
- CT Dynamic Myocardial Perfusion (DMP)
- CT EP Planning
- CT-MI Fusion
- CT Myocardial Defect Assessment
- CT Spectral Advanced Vessel Analysis
- CT Spectral Comprehensive Cardiac Analysis
- CT Spectral Magic Glass on PACS
- CT TAVI Planning
- MR Cardiac Functional Analysis
- MR Cardiac Spatial Enhancement
- MR Cardiac Temporal Enhancement
- MR Cardiac Quantitative Mapping
- MR Cardiac Whole Heart
- QR QFlow
- NM Astonish Reconstruction
- NM Cedar-Sinai Cardiac Suite 2015<sup>(2)</sup>
- NM Corridor 4DM<sup>(3)</sup> 2016
- NM Emory Cardiac Toolbox (ECTb) HeartFusion\*<sup>(4)</sup>
- NM Emory Cardiac Toolbox (ECTb) v4.1<sup>(4)</sup>
- NM Emory Cardiac Toolbox (ECTb) SyncTool\*<sup>(4)</sup>
- NM Processing Applications Suite
- US Q-App General Imaging 3D Quantification (GI 3DQ)
- US Q-App Intima Media Thickness (IMT)
- US Q-App Vascular Plaque Quantification (VPQ)
- US Q-App MicroVascular Imaging (MVI)

<sup>(1)</sup> Mirada is a registered trademarks of Mirada inc.

<sup>(2)</sup> Cedars-Sinai Cardiac Suite is a registered trademark of Cidars-Sinai

<sup>(3)</sup> Corridor4DM is a registered trademark of Invia, LLC.

<sup>(4)</sup> Emory Cardiac Toolbox, ECTb, HeartFusion, and SyncTool are registered trademarks of Emory University

# Neurology

Neurological cases can be challenging – especially strokes, where “time is brain” and you need to act fast. IntelliSpace Portal 11 offers a rich suite of tools that help you assess blood flows to different parts and tissues of the brain and evaluate neurological degenerative diseases.

## Neurology applications in IntelliSpace Portal 11:

- NM Mirada Viewer<sup>(1)</sup>
- CT Spectral Viewer
- Multi Modality Advanced Vessel Analysis (AVA)
- 3D Modeling
- CT Brain Perfusion
- CT Spectral Advanced Vessel Analysis
- CT Spectral Light Magic Glass
- CT Spectral Magic Glass on PACS
- MR T2\* (Neuro) Perfusion
- Multi Modality Viewer (MMV)
- MR Advanced Diffusion Analysis
- MR Diffusion
- MR FiberTrak
- MR IViewBOLD
- MR Longitudinal Brain Imaging (LoBI)
- MR MobiView
- MR NeuroQuant<sup>(2)</sup>
- MR Permeability
- MR SpectroView
- MR Subtraction
- NM NeuroQ<sup>(3)</sup> Amyloid
- NM NeuroQ<sup>(3)</sup> 3.75
- XA Vascular Processing – DSA (in MMV)

● New

● Enhanced

<sup>(1)</sup> Mirada is a registered trademarks of Mirada inc.

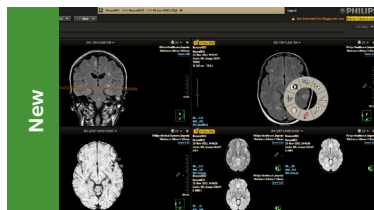
<sup>(2)</sup> NeuroQuant is a trademark of CorTechs Labs, Inc.

<sup>(3)</sup> NeuroQ is a trademark of Syntermed





## Multi Modality (MM) – Clinical applications



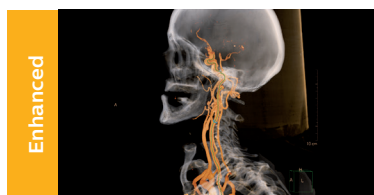
### Access anywhere to advanced DICOM viewing

**IntelliSpace Portal Zero Footprint Viewer<sup>(1)</sup>** provides clinically rich viewing environment, like quick prior comparison with automatic registration, MPR and Volume modes and Key images workflow. The HTML based viewer allows anywhere access<sup>(2)</sup> to imaging data stored and created on IntelliSpace Portal. Built in Peer2Peer real time collaboration capabilities supports communication and consultation between physicians.

<sup>(1)</sup> Zero Footprint Viewer is not intended for diagnostic purposes.

<sup>(2)</sup> Viewer is supported on OS X 10.10 and Windows 7,10 using: Internet Explorer, Chrome, Edge, Safari.

✓ General



### Comprehensive vascular analysis planning

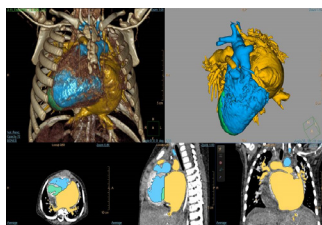
**Multi Modality Advanced Vessel Analysis (AVA)** delivers user-defined options for comprehensive vascular analysis planning. The robust bone removal algorithm on this application provides 3D visualization of the vessels. Additional automatic tools, such as centerlines, vessel labeling, and inner and outer lumen contours as well as Automatic Series Creation (ASC) are designed to reduce the time<sup>(1)</sup> to produce final results and contribute to consistency.

The application offers easy navigation through multiple findings and once you are completed, export rich, customizable reports to your RIS or PACS.

Tissue editing tools are accessible from floating toolbar opened per selected viewport: Vessels, Bone, MPR. Replicate volume bounding tools, provided in scene 1, also to scene 2. Enable users to manually extract centerlines when auto bone removal is not used. Keep layout consistency when switching to segmentation tab. Support undo/redo options for manual centerline extraction, automatic centerline extraction, edit centerline, extend centerline.

<sup>(1)</sup> Compared to the Philips EBW v4.x workstation

✓ Vascular  
✓ Surgery  
✓ Neurology  
✓ Cardiology



### Streamlined modeling workflow optimized for 3D printing

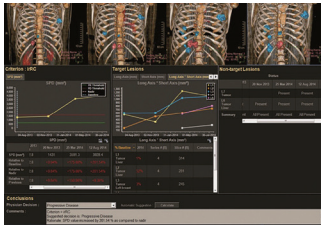
**3D Modeling** provides an optimized workflow for physicians wishing to print models utilizing the 3D segmentations (CT or MR) of IntelliSpace Portal applications.

Whether importing 3D segmentations from applications within the Portal or creating your own custom models directly from DICOM images, 3DM offers a suite of clinician focused rendering and editing tools to optimize a model for printing, and to help assure that the model reflects the true patient anatomy. Utilize volumetric tools to create hollow structures and edit wall thickness. Physicians may preview meshes against original DICOM imaging, and make adjustments in real time.

3D Modeling batches files for easy export in standard formats such as STL, and even renders your printable file in 3D PDF for better communication in the department.

✓ General

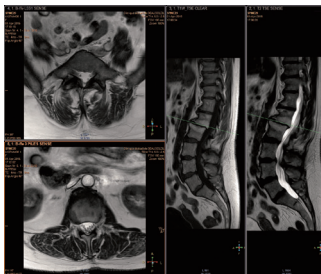
# Multi Modality (MM) – Clinical applications



## Streamline workflow for follow-up and analysis of oncology patients

**Multi Modality Tumor Tracking (MMTT)** is a post processing software used to monitor disease state and assess treatment response. The application is used to display, process, analyze, quantify and manipulate anatomical and functional images, for CT, MR, PET/CT and SPECT/CT images and/or multiple time-points. The application offers enhanced semi-automatic volumetric segmentation, as well as selectable oncology response criteria including standards such as RECIST 1.0, RECIST 1.1, WHO, CHOI, PERCIST, irRC and mRECIST. A quantitative overview of volumetric and functional features is organized for quick navigation. The application also includes Glucose SUV, an option to calculate lesion uptake normalized by patient glucose level, as well as PET metabolic volume segmentation options based on percentage.

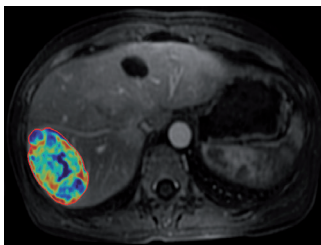
- ✓ Oncology
- ✓ Pulmonary



## A single initial viewing platform for all your advanced analysis needs

**Multi Modality Viewer** is standard with the IntelliSpace Portal, and can display datasets on any client using a LAN, WAN, or broadband connection. Easily configurable hanging protocols, designed to allow you spend more time analyzing and less time opening and arranging your studies. And with DSA processing for XA images, you can use well known post-processing tools like pixel shifting and landmarking outside the interventional room.

- ✓ General



## Semi-automatic tumor quantification

**Multi Modality Tumor Tracking supports the creation of Quantitative EASL (qEASL)** maps used to measure segmented volumes of interest (VOI) in heterogeneous lesions. This semi-automated 3D (Volumetric) tumor response assessment tool, based on EASL (European Association for the Study of the Liver) criteria incorporates functional information from contrast enhanced scans. Data are presented as color map overlaid on the scans to show regional tumor enhancement heterogeneity. The color regions of the segmented lesions are where there is more enhancement than the predefined reference region.

- ✓ Oncology





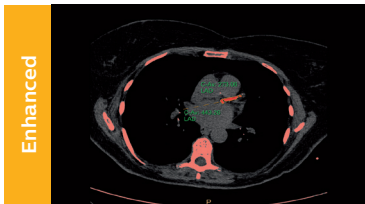
## CT – Clinical applications



### Comprehensive cardiac analysis

**CT Comprehensive Cardiac Analysis (CCA)** and LV/RV functional analysis provides endoluminal and epiluminal segmentation of the heart chambers with enhanced algorithms to calculate ejection-fraction, stroke volume, cardiac output, and left and right ventricular mass. Visualize the entire coronary tree, vessel lumen via morphological analysis, and analyze free lumen diameter. Perform functional analysis of ventricles and analyze chamber and valve morphology in 3D and using dynamic cine mode. Additional calculations include regurgitation volume and fraction index, RV/LV Early and Late (active and passive) filling volumes, and Early/Late LV filling ratio.

✓ Cardiology

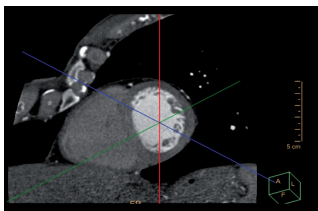


### One-click 3D calcium segmentation

**CT Calcium Scoring** rapidly quantifies coronary artery calcifications (CAC) and includes mass, Agatston score, and volume scores. It allows you to distribute automated, customizable reports electronically or on paper. Risk percentile is calculated based on MESA (Multi-Ethnic Study of Atherosclerosis) database to support multi ethnicities.

✓ Cardiology

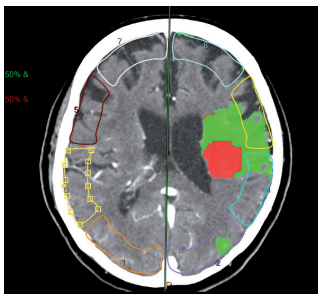
✓ Pulmonary



### Quick cardiac visualization

**CT Cardiac Viewer** provides a comprehensive set of tools that allows quick visualization of one or multiple cardiac phases, Synchronization of multiple cardiac phases with interactive slab-MIP tools to assist for review purposes. Rib cage removal for cardiac CT scans enables a 3D anatomical volume rendering image of the heart and the large blood vessels connected to it, after removing the rib-cage structures automatically, for different types of clinical questions, and scanning protocols. This assists in visualization of complex anatomy, and sharing results (e.g. with surgeons).

✓ Cardiology



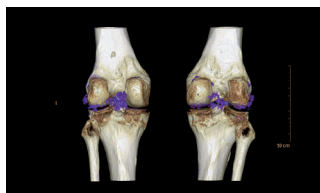
### Identify hypo perfused areas in acute stroke

**CT Brain Perfusion**, calculates and displays quantitative color maps of cerebral blood flow (CBF), cerebral blood volume (CBV), mean transit time (MTT) and time-to-peak (TTP), and provides reduced flow summary maps. The default summary maps make use of rigorously validated perfusion thresholds. Thresholds used to create the summary maps may also be edited by the user according to the physician's preference. The application offers automatic motion correction that can be further refined manually if needed. In addition, quality indicators ("traffic lights") point at possible acquisition faults that may affect the results. With studies of sufficient scan duration, permeability analysis can be used to measure the contrast agent permeation of the blood-brain barrier. The application also includes pre-defined ROI templates for systematic and reproducible quantitative regional results.

✓ Neurology

✓ Surgery

# CT – Clinical applications



## Visualize data from dual-energy acquisition

**CT Dual Energy Viewer** provides a set of tools for registration, quantification, and visualization of dual-energy image data acquired from the Philips iCT scanner's sequential dual-energy acquisition. This application is designed to assist in separation and analysis of materials such as calcium, iodine, and uric acid.

✓ General

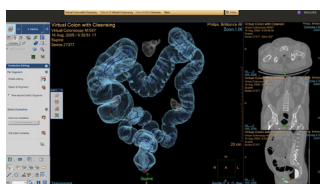


## Assess lung nodules over time

**CT Lung Nodule Assessment (LNA)** is an advanced imaging package for the segmentation, quantification and follow-up of physician-indicated lung nodules. The application can be used in both diagnostic and screening evaluations, supporting Low Dose CT Lung Cancer Screening\*. Take advantage of one-click volume segmentation along with advanced reporting tools which allow to efficiently export results in various output formats while supporting LungRADS categorization. In addition workflow and decision support tools<sup>(1)</sup> streamline follow-up readings. The application also features a Risk Calculator<sup>(1)</sup> tool based on patient and nodule characteristics for estimation of the probability that lung nodules detected on baseline screening low-dose CT scans are malignant. Including Fleischner criteria for incidental findings, features pre-filled data including characteristics for each nodule in configurable presets, lobe location, nodule shape, nodule spiculation, endobronchial and Perifissural/Subpleural.

✓ Oncology  
✓ Surgery  
✓ Pulmonary

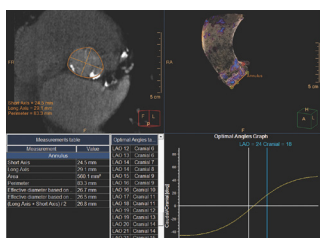
<sup>(1)</sup>These functionalities may not be available in all territories. Please contact Philips representative for more details."



## Reduce reading times in virtual colonoscopy

Philips exclusive **CT Virtual Colonoscopy** application enables 3D visualization of colon scans. The application automatically segments the air-filled colon and displays a calculated center line. The Perspective Filet view provides a synchronized display of the full colon surface wall with a single unidirectional view, reducing the need to review in both directions.

✓ Oncology  
✓ Surgery



## CT imaging in TAVI to advance patient care

**CT TAVI Planning** is a non-invasive post-processing application that provides semi-automatic measurements of the aorta and aortic valve that are useful for pre-TAVI planning. It also provides model-based segmentation of the aortic valve with automatic calcium segmentation and improved landmark detection, ascending aorta and left ventricle, semiautomated detection of the coronary ostia, semiautomated planes detection and dimensions measurements of the aortic annulus, left ventricular outflow tract, sinotubular junction, sinus of valsalva, ascending aorta and distance to coronary ostia for TAVI-device sizing. This application also provides a reasonable starting angle of the C-arm for device deployment, in the catheterization laboratory or hybrid operating room. Vascular access route is also included in the application, thus enabling potential time saving.

✓ Cardiology

\* The screening must be performed within the established inclusion criteria of programs/protocols that have been approved and published by either a governmental body or professional medical society. Please refer to clinical literature, including the results of the National Lung Screening Trial (N Engl J Med 2011; 365:395-409) and subsequent literature, for further information.





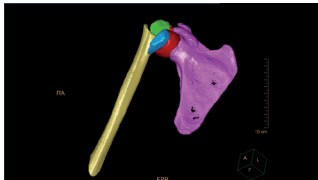
## CT – Clinical applications



### Quickly plan endovascular stent placement

**CT Advanced Vessel Analysis (AVA) Stent Planning** includes multiple preset and user-defined options to gain detailed information for use in stent planning. The application allows you to export customized results to external reporting systems.

- ✓ Vascular
- ✓ Surgery

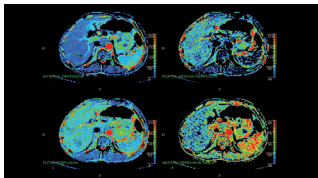


### One application for fast systematic review

**CT Acute MultiFunctional Review (AMFR)** allows the clinician reading trauma cases to remain within one comprehensive post-processing application to accomplish the diagnosis of trauma patients that were scanned with CT. The application offers:

- Viewing stage for trauma assessment
- Vascular assessment tools
- Automatic spine curve reformation and vertebra labeling
- Interactive pre-surgical MSK
- Multifunctional Findings Navigator to create, manage, and convey findings

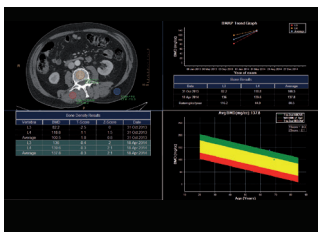
- ✓ Surgery
- ✓ Trauma
- ✓ MSK
- ✓ Vascular



### Quantifiable perfusion

**CT Body Perfusion** aids in the evaluation of acute or chronic stroke patients, as well as providing whole-organ or single-location liver perfusion. The package provides motion correction, and enables large coverage/low-dose imaging for superb neuro results.

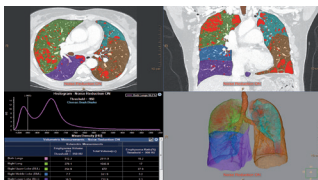
- ✓ Oncology



### Track degenerative and metabolic bone disease

**CT Bone Mineral Analysis (BMA)** provides quantitative CT information to measure a patient's bone density, helping the physician assess the patient's risk of osteoporosis. CT BMA provides results without the need of a reference phantom. Phantomless calculations are determined by using the patients own fat and muscle tissue as reference points\*. The application calculates T-scores and Z-scores and includes tracking support from study to study as well as full color screens and reports.

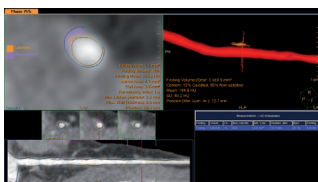
- ✓ MSK
- ✓ Orthopedics



### Track lung disease

**CT COPD** helps quantifiably track the destructive process of diffuse lung disease (emphysema) and helps localize specific areas of the lung that have been affected. Automatically segment both the left and right lungs to determine total lung volume (cc), diseased lung volume (cc) and percentage of affected lung. Segment the airway tree, attain centerlines, and measure airway parameters such as lumen diameter and wall thickness.

- ✓ Pulmonary

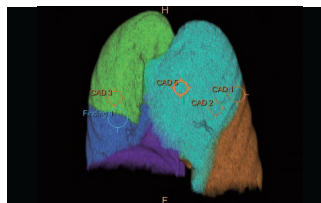


### Evaluate plaque risk

**CT Cardiac Plaque Assessment** includes capabilities which supports quantification and characterization of coronary plaque from multidetector computed tomography (MDCT) data. With this application, you can assess plaque sites.

- ✓ Cardiology

# CT – Clinical applications

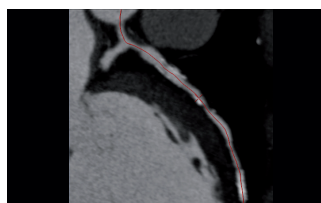


## Rely on an artificial second reader

**CT Lung Nodule CAD** <sup>(1)</sup> acts as a true second reader for multiple applications on the IntelliSpace Portal to support in detection of lesions or nodules which may have been missed. Automatic features of computer aided detection may be used to help augment findings in applications such as CT Lung Nodule Assessment, CT Pulmonary Artery Analysis, CT Virtual Colonoscopy.

<sup>(1)</sup> CAD functionality not available for sale in the US

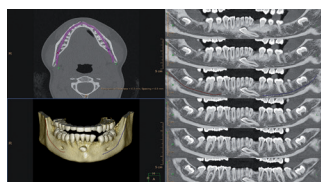
✓ General



## Fusing cardiac CT-MI

**CT-MI Fusion** incorporates support for myocardial perfusion imaging (MPI). CCA with the CT-MI Fusion option allows loading both gated and un-gated rest, and gated and un-gated stress MI datasets simultaneously with the CT. The MI images are displayed in the short axis and the two long axis planes. The axes definition is derived from the CT study.

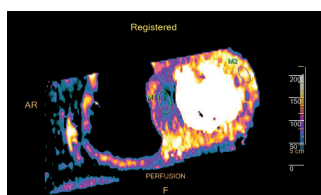
✓ Cardiology



## Planning for oral surgery

In maxillofacial trauma cases, the course of treatment can often only be decided after a surgical consult. **CT Dental Planning** is designed to support enhanced surgical planning, and facilitate collaboration between radiologists and surgeons. The panoramic, cross sectional and volumetric images provides the oral surgeon with information on position of teeth and roots, existing implants, the mandibular canal and the density of the bone; The thickness of the bone, depth of the jaws and other pathologies can also be evaluated and measured.

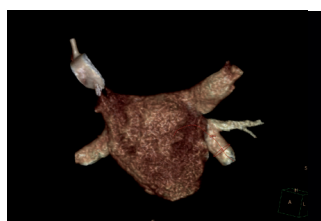
✓ Surgery



## Dynamic color maps provide an assessment of myocardial risk

**CT Dynamic Myocardial Perfusion (DMP)** is intended for visualization, diagnostic assessment, and quantification of cardiac images focusing on the left ventricular myocardium: specifically providing quantitative myocardial blood flow measurements for CT images, including the ability to identify areas of decreased perfusion within the myocardium that may represent ischemia. The application supports axial, ECG-gated CT images, consisting of multiple time shots of the same myocardial region over time. CT DMP displays the results as a composite image (single image calculated from a set of time course images at a single location).

✓ Cardiology



## Fast planning for EP procedures

**CT EP Planning** provides overall assessment of pulmonary veins, left atrial, and appendage anatomy, enabling the electrophysiologist to identify anatomy that may complicate the EP procedure.

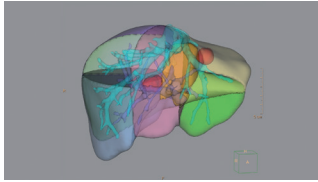
✓ Cardiology

✓ Surgery





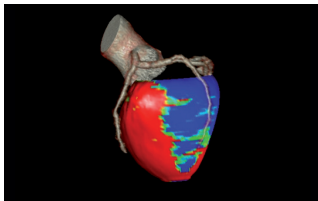
## CT – Clinical applications



### Advanced liver segmentation

**CT Liver Analysis** automatically identifies the liver from a portal venous phase of a tri-phase liver scan. The application provides segmentation tools to facilitate for assessing the liver, hepatic vasculature of individual vascular segments, and physician-identified lesions. Automated segmentation tools can prove to be of use in rapidly extracting clinically reliable whole liver volumes, as evidenced by significantly shortened processing time and improved reproducibility of automated compared to manual approaches. As a basis for comprehensive analysis and quantification, the liver is segmented semiautomatically using six types of segmentation, including 8-lobe (Couinaud) and 9-lobe. The application enables virtual hepatectomy, and provides volumetric calculation of resected and residual liver segments for RF ablation and surgery planning.

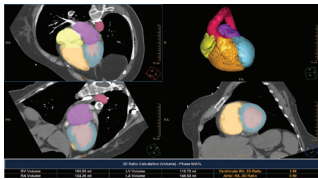
- ✓ Oncology
- ✓ Surgery



### Assessing myocardial defects

**CT Myocardial Defect Assessment** provides visual and quantitative assessment of segmented, low-attenuation defect areas within the myocardium from a single, gated cardiac CTA scan (retrospectively-gated spiral or Step and Shoot Cardiac). The application itself is based on the robust, automatic, model-based, whole heart segmentation from the CT Comprehensive Cardiac Analysis application.

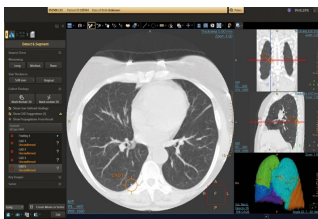
- ✓ Cardiology



### Guided pulmonary embolism discovery

**CT Pulmonary Artery Analysis (PAA)** offers automatic segmentation of pulmonary arteries on MDCT data to estimate the patency of pulmonary arteries. A full suite of tools helps you visualize the lungs, review results, and report any PE findings. Extract relevant cardiac measurements such as RV/LV ventricular ratio and chambers volumes.

- ✓ Pulmonary

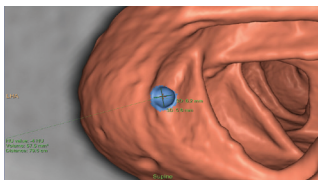


### Automated computer aid for lung nodule detection

**CT Lung Nodule CAD<sup>(1)</sup>** offers an automated process that identifies and marks regions of interest (ROI) based on image features associated with lung nodules. It is intended for use as an aid in the potential detection of additional lung nodules once initial interpretation of the diagnostic image has been performed. Volumetric segmentation excludes normal anatomy and identifies nodules based on size, shape, density, and anatomical context. The application features one-click display of the findings.

<sup>(1)</sup> CAD functionality not available for sale in the US

- ✓ Oncology
- ✓ Surgery



### Automatically detect potential polyps in CT colonography exams

**VeraLook CAD<sup>(1)</sup>** uses image processing and pattern recognition technology to identify colon polyps in CT colonography images, which can help streamline the reading process and improve workflow for radiologists while supporting accuracy, consistency and productivity in colon cancer screenings. Indicated for use as a second read, VeraLook is designed to enhance clinician accuracy and efficiency by improving detection of pedunculated, sessile, flat and fluid submerged colonic polyps.

<sup>(1)</sup> VeraLook is a trademark of iCAD inc. for sale only in the US

- ✓ Oncology

## CT Spectral applications\*

Spectral results anytime,  
virtually anywhere,  
enterprise-wide\*\*

Philips IntelliSpace Portal suite of Spectral clinical applications has been optimized for the viewing and analysis of spectral data sets from the IQon Spectral CT scanner. You can access the application you need when and where you need, virtually anywhere in your enterprise. The tools help you gain a comprehensive overview of each patient, quantify quickly, and support diagnosis.



### The clinical enhancements of spectral applications

- Spectral applications enhance the conventional image by overlaying an iodine map
- Visualization of virtual non-contrast images
- Images at different energy levels (40-200 keV)
- Lesion characterization using scatter plots and tissue characterization using attenuation curves
- Anatomy aware viewing presets tailored for by anatomy and user
- Adaptive Windowing for different keV levels
- Spectral based volume quantification & visualization of hypo-perfusion sub-lesion regions

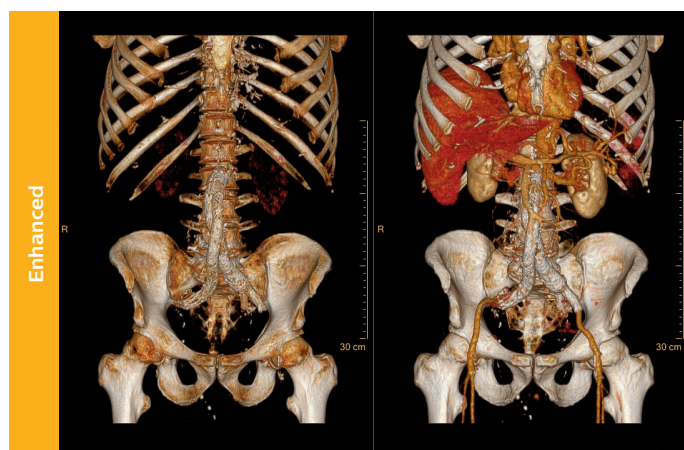


\* IQon\* CT reconstruction provides a single DICOM entity containing sufficient information for retrospective analysis - Spectral Base Image (SBI). SBI contains all the spectrum of spectral results with no need for additional reconstruction or post-processing. Spectral applications are creating different spectral results from SBI.  
\*\* based on IntelliSpace Portal clients availability in the enterprise





## Spectral applications

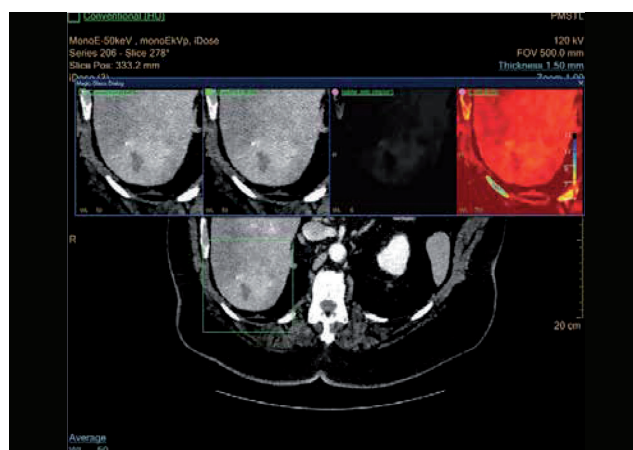


### CT Spectral Viewer

CT Spectral viewer is optimized for analysis of spectral data sets from the IQon Spectral CT Scanner.

#### Spectral functionality:

- Enhancement of conventional image by an iodine map overlay
- Visualization of virtual non-contrast images
- Displaying images at different energy levels (40–200 keV) and provides Automatically adaptive Windowing for different keV levels.
- Lesion characterization using scatter plots.
- Tissue characterization using attenuation curves.
- Switching to spectral results through a viewport control.
- Spectral volume quantification for quick sub-lesion segmentation, quantification, and visualization of hypo-perfusion regions.
- Anatomy aware presets- hanging protocol like workflow, tailored for the viewed anatomy and user's preferences.



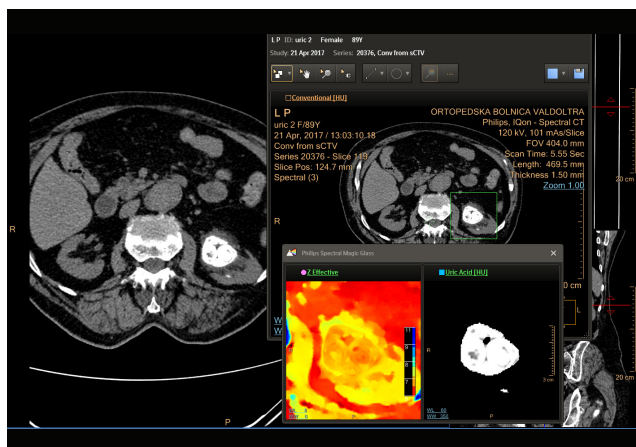
### CT Spectral Magic Glass on PACS <sup>(1)</sup>

IQon Spectral CT is the only scanner to offer CT Spectral Light Magic Glass and CT Spectral Magic Glass on PACS, helping radiologists review and analyze multiple layers of spectral data at once, including on their PACS.

#### Spectral functionality:

- On-demand simultaneous analysis of multiple spectral results for an ROI.
- Integrates into a health system's current PACS setup for certain PACS vendors.
- Spectral results viewable during a routine reading.
- Enterprise-wide spectral viewing and analysis allows access to capabilities virtually anywhere in the organization.

<sup>(1)</sup> Standard with the CT Spectral option on IntelliSpace Portal 11

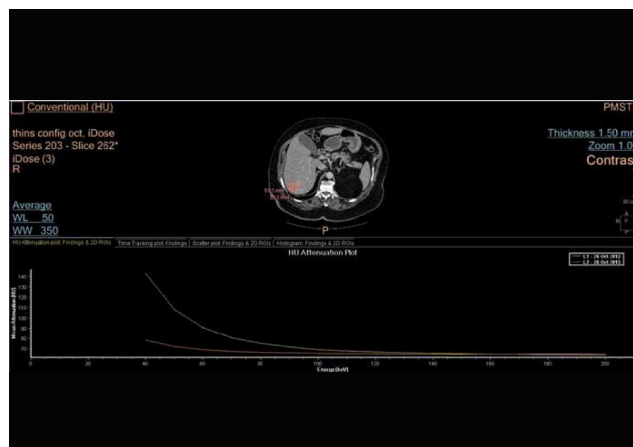


### CT Spectral Light Magic Glass

Allows retrospective use of spectral data that was saved as an SBI. Allows reviewing of spectral data and identification of most relevant result to be launched into the conventional CT application for routine work.

#### Spectral functionality:

- Virtual Colonoscopy application
- Liver application
- Trauma Viewer (Acute Multifunctional Review)
- TAVI application
- PAA application
- Brain Perfusion application
- Functional CT (FCT) application



### CT Spectral Tumor Tracking (part of MM MMTT)

Offers a set of tools for tumor analysis. It allows the user to load several cases in parallel, each taken from a different examination time, segment and edit tumors, and perform lesion viewing and analysis based on different spectral data types.

#### Spectral functionality:

- Viewing tumors with different spectral data types.
- (VNC, iodine map)
- Images at different energy levels. (40-200 keV)
- Iodine uptake measurements
- Intra-lesion material decomposition (calcium, other materials)
- Intra-lesion effective atomic number

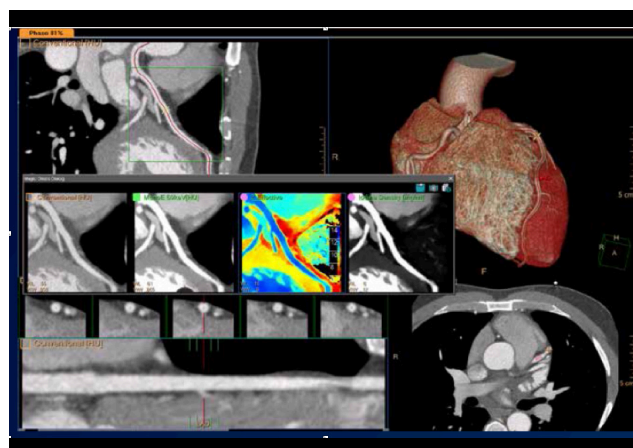


### CT Spectral Advanced Vessel Analysis

Offers a set of tools for general vascular analysis. Based on spectral data, it supports the user in removing bone, extracting and editing vessel wall and lumen, and performing lesion analysis. Moreover the application allows you to compare the extracted vessels using various spectral results.

#### Spectral functionality:

- Bone removal on different energy levels
- Spectral plots to characterize plaque and stenosis
- Different energy results comparison
- Evaluation of the extent of lumen occlusion



### CT Spectral Comprehensive Cardiac Analysis (part of CT CCA)

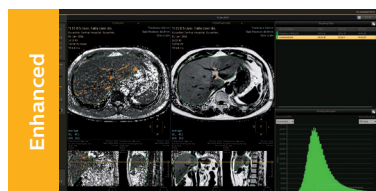
Provides the ability to run cardiac segmentation on different energy levels, compare vessel curves with various spectral data types, and enhance the visual assessment of coronary vessel patency.

#### Spectral functionality:

- Automatic chamber and coronary segmentation using monoenergetic images
- Beam hardening reduction for:
  - Perfusion deficits visualization
  - Calcified plaque visualization
- Spectral Magic Glass



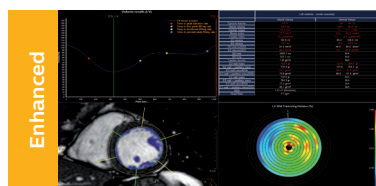
# MR – Clinical applications



## **Simplify workflow with fast, automated calculation of whole liver volume**

✓ Radiology

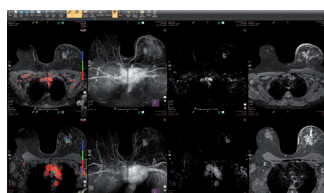
**MR Liver Health.** A dedicated workflow to support the assessment of liver diseases from MRI biomarkers such as Fat Fraction (FF) or T2\*/R2\* for the whole liver, its segments, and user-defined Regions-of-Interest (ROIs). To support evaluation for surgery, the application provides Automatic segmentation based on T1W image for the whole liver and liver segments (e.g. Couinaud). Perform longitudinal assessment of MR parametric maps for the whole liver, its segments and user-defined Regions-of-Interest (ROIs).



## **Detailed quantification of cardiac function**

✓ Cardiology

**MR Cardiac** facilitates visual scoring in various examination contexts. The package enables comprehensive functional volumetric analysis for the ventricles, such as ejection fraction, wall motion, wall thickness and thickening. Identification of spatial enhancement based on intensity signal changes is included while bookmark functionality "frames" any view on the data that is relevant for saving or communicating to other physicians. MR Cardiac also allows for quick functional analysis using the Areal Length Ejection Fraction (ALEF) method.

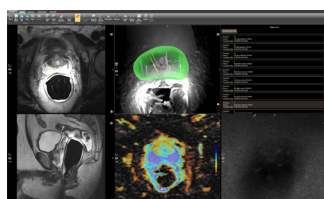


## **Purpose-built to streamline workflow and maximize productivity for MR Breast reading**

✓ Oncology

**DynaCAD Breast** has been tailored to enhance the review and analysis of MRI breast studies by providing a flexible workspace with custom hanging protocols and multi-vendor<sup>(1)</sup> viewing capabilities. DynaCAD's automatic segmentation allows for on-the-fly user modification and provides volume analysis, lesion composition statistics, histograms, and a 3D rendered morphological overview. Results are automatically incorporated into standardized reports. The DynaLOC Breast Interventional Planning software module supports the use of interventional breast coils and MR stereotactic localization devices to perform MR-guided breast interventional procedures.

<sup>(1)</sup> Please contact local Philips representative for details on multivendor coverage.

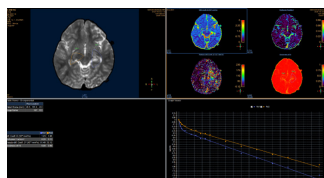


## **Designed to enhance confidence, productivity and accuracy for MR Prostate reading**

✓ Oncology

**DynaCAD Prostate** provides a powerful, easy-to-navigate, multi-vendor<sup>(1)</sup> MR image analysis application featuring custom hanging protocols with all images synchronized for easy, multi-parametric review. DynaCAD features automatic segmentation of the prostate gland, providing an overall gland volume estimation. It also features single-click volume analysis, and lesion statistics, and histograms as well as color overlay based on diffusion ADC values. Lesions are assessed using the PIRADS v2 scoring and incorporated into standardized reports. Lesions identified and marked on the system can be passed to aUroNav system for fusion biopsy.

<sup>(1)</sup> Please contact local Philips representative for details on multivendor coverage.



## **Enhance your workflow**

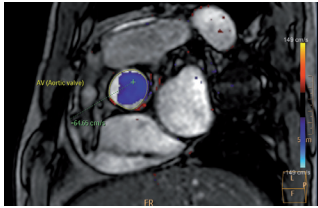
✓ Neurology

✓ Oncology

**MR Advanced Diffusion Analysis (ADA)** is a post processing software application used to view, process and analyze MRI Diffusion Weighted Images. The application calculates and displays cDWI at a b-value of choice and provides advanced supportive analysis and visualization tools of diffusion MRI images and parametric maps. The application presents a default diffusion analysis model based on the available original DWI images as well as a selection of alternative models including monoexponential, biexponential, simplified IVIM, and kurtosis. A 'goodness of fit' value and fitted curve show the fitting quality of the selected model. The application also provides parametric maps of perfusion fraction (f), pseudo diffusivity (D\*), Diffusivity (D) and Kurtosis (K)."



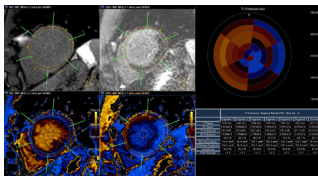
# MR – Clinical applications



## Visualizing and quantifying blood flow dynamics

**MR QFlow** supports visualizing and quantifying of flow data. The tooling creates 2D color flow overlay maps on anatomical which can be used, for example, to calculate stroke volumes. The package includes automatic vessel contour detection for large vessels to perform vessel's flow analysis. Background correction allows for off set correction required for Qflow data of certain MR vendors. Qflow analysis is integrated as part of MR Cardiac Suite allowing flow and functional analysis in one suit with combined reporting.

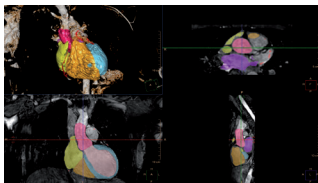
- ✓ Vascular
- ✓ Cardiology



## Assess myocardial tissue characteristics

**MR Cardiac Quantitative Mapping** helps you assess and review myocardial tissue characteristics in multiple, user-defined, field-strength specific look-up tables. Review global and diffuse myocardial pathologies by means of T1 maps, T2 maps, and T2\* maps. Now, manual and automatic motion correction tools are provided which may enhance map calculations. Map fitting/ calculation of shMolli and SASHA acquisition.

- ✓ Cardiology



## Detailed 3D visualization of the segmented heart

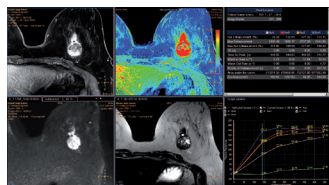
**MR Cardiac Whole Heart** performs automated segmentation of the heart into individual segments such as left-ventricle, right-ventricle, atria, and coronaries. Results can be presented in a high-quality 3D rendering. Now with STL/VTK export functionality to aid in printing of 3D models, and enhanced scene support. 'Create new tissue' Logical workflow to support segmentation based on 'masking and seeding'. Seed based segmentation – Similar 'seed based functionality' from EWS which is part of the 'create a segmentation task guidance'.

- ✓ Cardiology

- Have minimal user interaction due to a logical workflow order and improved 3D segmentation tools for the segmentation of cardiovascular structures
- Provide one 3D view /model with the relevant anatomical structures imaged from different series and dynamics to support decision making in complex hemodynamic structures
- Prepare and export 3D models in a user defined smoothness, opacity and format suitable for 3D printing and surgical navigation software.



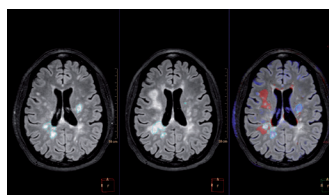
# MR – Clinical applications



## Support in assessing lesions by reviewing blood supply characteristics

**MR T1 Perfusion Analysis** produces measurements of relative enhancement, maximum enhancement, time to peak (TTP), and wash-in rate. Registration of the source images in the dynamic series can remove motion artifacts, and temporal and spatial smoothing of the input data can be performed to improve SNR. The package includes user-selected color-coding of the functional data. The maps can be viewed and stored as overlays on anatomical reference images. The opacity of the overlay is user-defined. ROI analysis is also included. Enhanced wash-out calculation for better handling large number of time points.

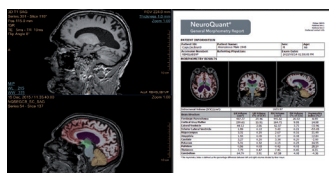
✓ Oncology



## Gain an optimized view of the body's most complex organ

**MR Longitudinal Brain Imaging (LoBi)** supports evaluation of neurological disorders tracked with serial brain scans to monitor disease state and progression. Scans are automatically registered to simplify comparison and the application provides editing tools and volumetric quantification. Using Comparative Brain Imaging (CoBI) functionality, to track subtle differences in the brain by subtracting scans taken at different time points.

✓ Neurology

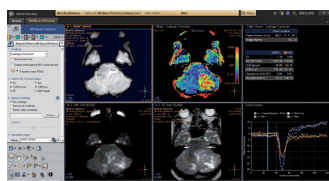


## Automated brain image analysis solutions

**MR NeuroQuant<sup>(1)</sup>** automatically segments and measures volumes of brain structures and compares these volumes to standard norms. This provides a convenient and cost-effective means to gain reliable, objective measurements of neurodegeneration, helping reduce the subjectivity of the diagnosis.

✓ Neurology

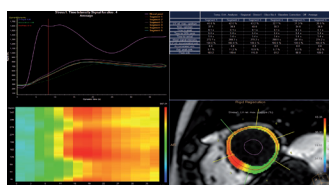
<sup>(1)</sup> NeuroQuant is a trademark of CorTechs Labs, Inc.



## Reviewing brain tissue perfusion viability

**MR T2\* (Neuro) Perfusion** is designed to assess brain perfusion helping with stroke assessment and other disease tracking. Visualization and quantitative analysis of the diffusion-perfusion mismatch in case of acute stroke is also included. Temporal and spatial smoothing of the input data can be performed to improve SNR. The package includes user-selected color coding of the functional data, and maps can be viewed and stored as overlays on anatomical reference images. The opacity of the overlay is user-defined. ROI analysis can be performed, and an arterial input functions (AIF) can be defined if required. The application now also includes leakage correction standard.

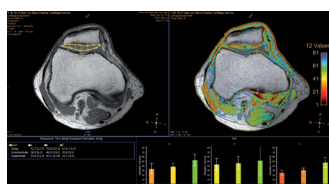
✓ Neurology



## Support assessing temporal enhancements of the myocardium

**MR Cardiac Temporal Enhancement** facilitates myocardial analysis of dynamically resolved cardiac data (multi-slice, dynamics) and enables comparison of rest and stress studies. Results are presented using either the AHA standardized or adapted bull's eye views. The package includes a correction algorithm and manual tools to correct frame-to-frame heart displacements caused by breathing.

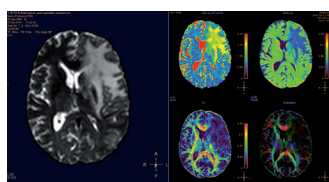
✓ Cardiology



## Aiding in therapy planning by visualizing

**MR Cartilage Assessment** enables the visualization of cartilage structures integrated with color-coded T2 maps. Positioning of cartilage-shaped, layered ROIs is used to assess variation of T2 values across the cartilage depth to determine the degradation of the cartilage.

✓ Orthopedics

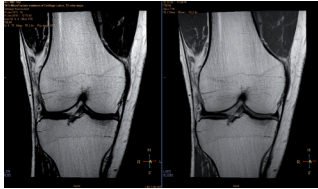


## Detailed review of diffusion indicated lesions

**MR Diffusion** tool enables analysis of diffusion characteristics such as ADC, eADC, and FA in stroke cases and other diseases. Registration of the underlying data allows for reduced blurring in case data affected by motion. The tool includes capabilities such as user-selected color coding of output maps and user-selected choice of specific b-values for the end calculation.

✓ Neurology

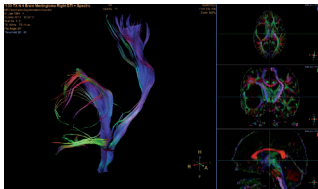
# MR – Clinical applications



## Optimizing image contrasts for multi-echo MR data

**MR Echo Accumulation** enables the calculation of new images based on the selected sum of echo times. This helps optimize cartilage contrast within high-resolution knee images. The processing provides interactive update of the results.

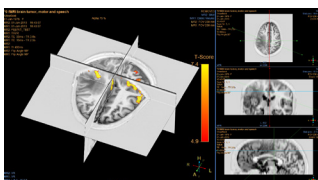
✓ Orthopedics



## Visualize white matter connectivity in the brain

**MR FiberTrak** provides visualization of white matter tracts using task guidance for generating common or user-defined tracts. Detailed examples are used to guide the user for the various tracts. Visualization includes overlays, such as functional maps. Bookmarks allow saving of any (intermediate) view of the package on a dataset.

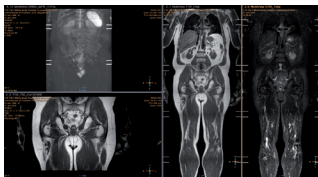
✓ Neurology



## Brain activation analysis

The **MR IViewBOLD** package facilitates off-line functional BOLD MRI analysis for both block, event-related, and seed-based resting state analysis, so you can visualize task-related areas of activation. Automated pre-processing such dynamics registration and registration to anatomical reference enables efficient workflow. You can have detailed reviews of the data, such as review of the average responses to events and display registration results across dynamics. Export of functional results to other DICOM nodes such as surgical planning devices is included in the base configuration.

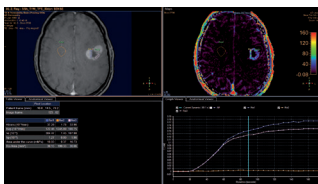
✓ Neurology



## Automatic review of total body MR data

**MR MobiView** combines multiple images into a single full-field view to review multi-scanner acquisitions. This is easily accomplished with a single mouse-click in the IntelliSpace Portal Multi Modality Viewer or faster with a pre-defined zero-click protocol for day-to-day use. Key clinical cases are MRA run-offs, whole body metastases screening from eye-to-thighs, and total spine views to show the complete CNS. The resulting image series can be viewed, filmed, and exported using a DICOM compliant tool.

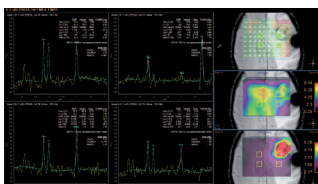
✓ Oncology  
✓ Neurology



## Lesion characterization by reviewing vascular leakage

**MR Permeability** helps perform measurements, such as measuring the leakage of gadolinium chelates into the extra-vascular extracellular space (EES). The most important use relates to oncology of the prostate and brain. This tool calculates parametric maps such as Ktrans and Kep which is related to tracer kinetics behavior.

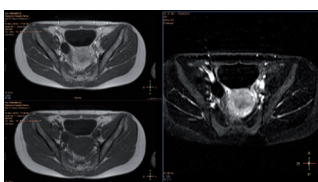
✓ Oncology  
✓ Neurology



## Understanding the metabolic changes with MR

Proton spectroscopy data can be analyzed with the **MR SpectroView** application, which enables anatomy-based automatic generation of the right processing presets based on enhanced DICOM data. The package provides task guidance for easy adaptations of the final processing settings.

✓ Oncology  
✓ Neurology



## Improve image contrasts for MR data in dynamic studies

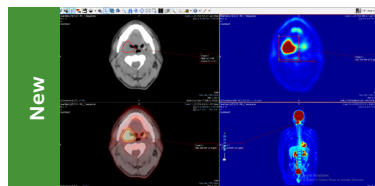
**MR Subtraction** enables quantitative subtraction calculations of dynamic studies and also provides for computation of magnetization transfer contrast ratio (MTC) images from an appropriate set of input images. Weighting factors can be defined to influence the subtraction or MTC outcome.

✓ Neurology  
✓ Oncology





## MI – Clinical applications



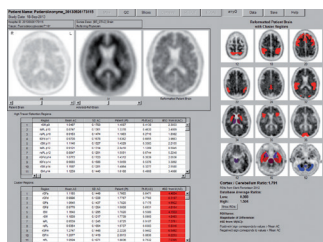
### PET\CT and NM viewing and quantification

**NM Mirada Viewer<sup>(1)</sup>** is designed to enhance productivity of PET\CT and NM reading. It offers a solution for handling multiple studies requiring rigorous quantification of MV data<sup>(2)</sup>. The Mirada Viewer includes quick and configurable protocols for convenient reading; Lesion tracking and treatment response; exportable tables and graphs; PET\CT and PET\MR registration.

<sup>(1)</sup> Mirada is a trademark of Mirada Inc.

<sup>(2)</sup> Please contact local Philips representative for details on multivendor coverage.

✓ Neurology (PET



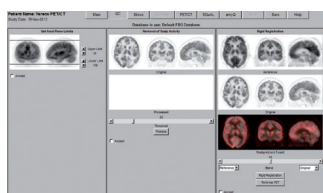
### Assessing Amyloid plaque

The **NM NeuroQ<sup>(1)</sup> Amyloid** analysis tool is designed to help clinicians to assess the presence or absence of Amyloid plaque in the brain. Provides quantitative analysis tools for Brain PET scans using NeuraCeq or Amyvid agents.

- NeuraCeq database (Piramal)
- Quantitative analysis of amyloid uptake levels in the brain
- Helps increase confidence in the diagnosis and alter treatment plan
- Intuitive and easy to use

<sup>(1)</sup> NeuroQ is a trademark of Syntermed.

✓ Neurology



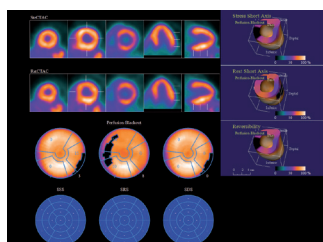
### Aiding in the differential diagnosis of dementia

The **NM NeuroQ<sup>(1)</sup> 3.75** application is designed to help clinicians perform a quantitative analysis of FDG-PET brain scans. The application compares the regional brain activity in an individual scan to activity values derived from a group of asymptomatic control subjects. It analyzes the distribution of FDG-PET in individual scans, as well as the sometimes hard to detect differences between two PET scans on the same patient taken at different points in time.

- 3D surface projections display
- Ability to write out comparison values to an excel spreadsheet
- Automated analysis and powerful tool to assist clinicians with interpretations of brain PET scans
- Helps clinicians to detect clinically meaningful abnormalities of regional brain metabolism
- NeuroQ brain SPECT analysis option (HMPAO normal database)

<sup>(1)</sup> NeuroQuant is a trademark of CorTechs Labs, Inc.

✓ Neurology (PET)



### SPECT and PET cardiovascular quantification, review, and reporting

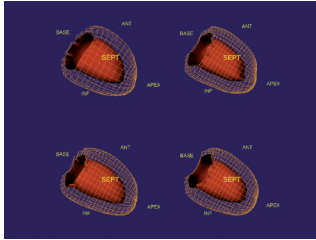
**NM Corridor4DM<sup>(1)</sup> 2016** is designed for advanced cardiovascular quantification and image display and includes intelligent workflow and quality assurance measures for increased confidence. Quantify myocardial perfusion, function, and viability using multiple review screens, with integrated reporting through customizable templates. NM Corridor4DM 2016 also includes: LV surface estimation and quantification, additional normal databases to support, and GEMS Evolution SPECT reconstruction.

- Quantifies, displays, and provides reporting for SPECT and PET myocardial perfusion and function, PET FDG metabolism, and SPECT blood pool studies in a single, configurable application.
- Provides tools to generate and review DICOM static and multi-frame secondary screen captures.
- Easily configurable for different workflows, protocols, and preferences.
- Coronary Flow Reserve (CFR) Quantification for Rubidium (Rb-82) and Ammonia (N-13).
- LV surface estimation and quantification
- Enhanced display tools
- Additional normal databases to support GEMS Evolution SPECT reconstruction.
- Provides tools to generate and review DICOM static and multi-frame secondary screen captures including updated DICOM Encapsulated PDF Viewer and Waveform and 12-Lead Viewer.

<sup>(1)</sup> Corridor4DM is a registered trademark of Invia, LLC.

✓ Cardiology

# MI – Clinical applications



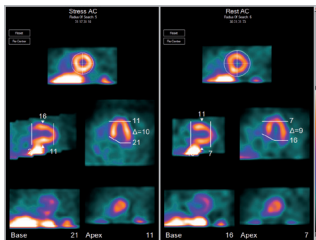
## Advanced cardiac quantification

Developed at Cedars-Sinai Medical Center in Los Angeles, California, **NM Cedars Sinai Cardiac Suite 2015**<sup>(1)</sup> provides comprehensive cardiac quantification tools for gated, perfusion, and blood pool SPECT and quantitative PET. Widely accepted by clinicians worldwide, the Cedars-Sinai Cardiac Suite 2015 application provides efficient workflow for study interpretation with exclusive integration of perfusion and function.

- RV quantification: Automated RV contouring, quantification and analysis
- Perfusion polar map defect editor: users can manually edit polar map
- DataView feature: user customizable viewing layouts
- Enhanced Phase Analysis algorithm, Smart Launch, color pallet editor

<sup>(1)</sup> Not available for sale in all countries. Please check for availability in specific countries.

✓ Cardiology



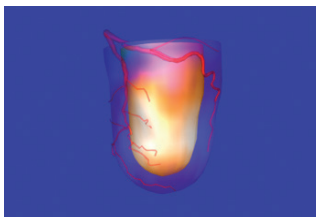
## Cardiac analysis

The **NM Emory Cardiac Toolbox (ECTb) v4.1**<sup>(1)</sup> provides advanced tools for cardiac SPECT and PET analysis including comparison of perfusion to viability data, display of 3D images with coronary overlays and gated 3D cine, normal limits for agent match/mismatch as well as optional phase analysis for wall motion and evaluation of thickening.

- New SmartReport option – Automated structured reporting dedicated to Nuclear Cardiology
- Transaxial reorientation
- General performance enhancements
- Enhanced Systolic Dyssynchrony analysis
- Diastolic Dyssynchrony analysis

<sup>(1)</sup> Emory Cardiac Toolbox, ECTb, HeartFusion, and SyncTool are registered trademarks of Emory University.

✓ Cardiology



## Evaluate fused coronary anatomy

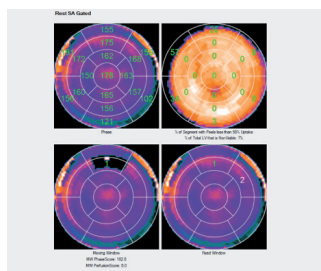
**NM Emory Cardiac Toolbox (ECTb) HeartFusion**<sup>(1)</sup> tool offers fusion of a patient's coronary tree from cardiac CT angiography with MI perfusion images to correlate stenosis with perfusion defects and identify muscle mass at risk.

<sup>(1)</sup> Emory Cardiac Toolbox, ECTb, HeartFusion, and SyncTool are registered trademarks of Emory University.

✓ Cardiology



# MI – Clinical applications

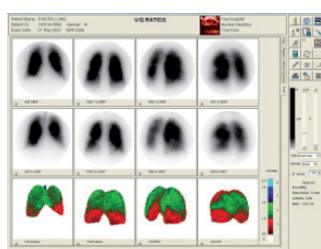


## Assess cardiac mechanic dyssynchrony

**NM Emory Cardiac Toolbox (ECTb) SyncTool<sup>(1)</sup>** provides an objective evaluation of left ventricular (LV) dyssynchrony using phase analysis. It also provides the cardiologist with additional prognostic information that can be obtained from 3D perfusion images, such as the presence and location of scar tissue. The SyncTool review screen includes phase polar maps, phase histograms, and a summary of systolic wall thickening analysis including peak phase and standard deviation of the phase distribution.

<sup>(1)</sup> Emory Cardiac Toolbox, ECTb, HeartFusion, and SyncTool are registered trademarks of Emory University.

✓ Cardiology

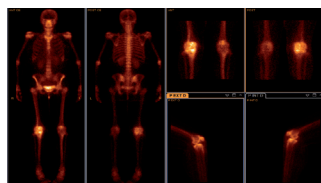


## Generate new clinical insights

**NM JETPack Application Suite** for general MI includes a complementary set of organ-specific applications to meet the current and evolving needs of MI users, including endocrine, gastric, hepatobiliary, lung, neuro, renal, and whole-body and bone applications. It allows calculation of regional cerebral blood flow, brain perfusion index, dopamine transport, liver perfusion, micturition, and gastro-esophageal reflux. In addition, an optional IDL <sup>(1)</sup> developers' kit is available for development of applications.

<sup>(1)</sup> IDL is a registered trademark of Exelis Visual Information Solutions. Developer training required.

✓ General Molecular Imaging



## Streamline Molecular Imaging workflow

**NM Processing Applications Suite** offers comprehensive analysis and processing protocols for planar and SPECT studies including renal, lung, whole-body and bone, cardiac (first pass, shunt, and MUGA), gastric, esophageal, hepatobiliary, and endocrine applications.

NM Processing Application Suite features Philips AutoSPECT Pro software for fast and automated SPECT reconstruction and re-orientation. It also includes a set of tools to perform daily and periodic quality assurance for SPECT cameras. It now includes new display layouts.

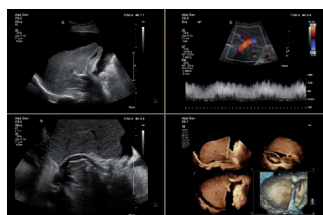
- AutoSPECT Pro provides fast and fully automated SPECT reconstruction and reorientation with motion correction, as well as CT-based attenuation and scatter correction.
- The QA Suite provides a comprehensive set of tools to perform daily and periodic quality control.

✓ General Molecular Imaging





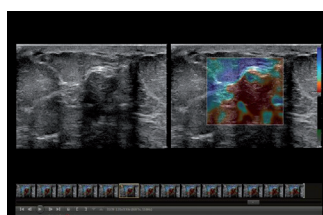
# US – Clinical applications



## View ultrasound with multi-modality exams on the same workstation

**US Viewing (in MMV)** and analytics are now available from a multi-modality workstation environment. Review high-resolution single and multi-frame images in collaboration with other modalities. With US Viewing (in Multi Modality Viewing), clinicians can easily perform measurements, annotations, zoom anatomy and adjust window/levels controls. Edited images can be appended to the patient's exam for complete documentation.

- ✓ Radiology
- ✓ Oncology
- ✓ Internal medicine

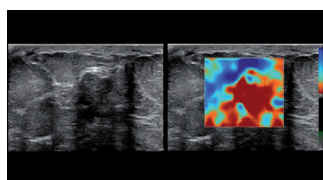


## Explore new tissue stiffness measurements

**US Q-App Elastography Quantification (EQ)**<sup>(1)</sup> allows you to strain elastography quantification of tissue deformation based on an elastogram. Calculate and display the strain rate and total strain, size compare between two ROIs, and strain ratio; results may be appended to patient reports.

<sup>(1)</sup> Not available for sale in the US

- ✓ Radiology
- ✓ Internal medicine

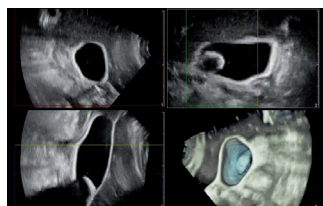


## Explore new tissue stiffness measurements

**US Q-App Elastography Analysis (EA)**<sup>(1)</sup> allows you to strain elastography analysis of tissue deformation based on an elastogram. The applications can be used to size compare between two ROIs; results may be appended to patient reports.

<sup>(1)</sup> Only available for sale in the US

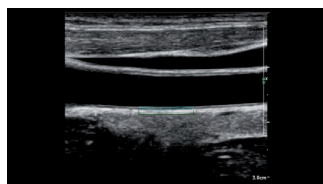
- ✓ Radiology
- ✓ Internal medicine



## Perform advanced visualization and quantification of ultrasound volume

**US Q-App General Imaging 3D Quantification (GI3DQ)** is designed to provide advanced viewing, manipulation, and quantification of 3D data sets. Perform advanced functions such as MPR interrogation, iSlice tomographic imaging, and volume rendering as well as volumetric measurements using multiple methods including semi-automated tools. Results generated from this tool can be appended to the patient's exam for complete documentation.

- ✓ Radiology
- ✓ Oncology
- ✓ Internal medicine
- ✓ Cardiology
- ✓ Vascular

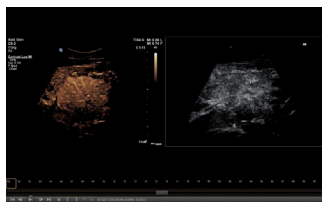


## Help determine cardiovascular disease risk

**US Q-App Intima Media Thickness (IMT)** provides easy and consistent measurement of intima media thickness in carotids and other superficial vessels. Report IMT values and append them to patient reports.

- ✓ Vascular
- ✓ Radiology

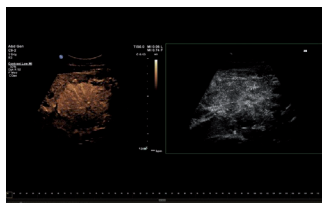
# US – Clinical applications



## Enhanced vessel conspicuity

**US Q-App Microvascular Imaging (MVI)** supports you in mapping contrast agent progression with contrast enhanced ultrasound (CEUS) for tumor assessment and monitoring.

- ✓ Vascular
- ✓ Radiology
- ✓ Oncology

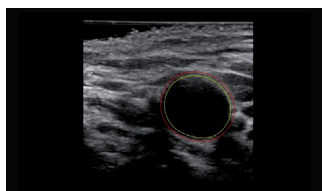


## Perform advanced analysis of 2D, color, and Contrast Enhanced Ultrasound data

**The Q-App Region of Interest (ROI)** provides specialized tools for spatial and temporal analysis of regions of interest in 2D, color and contrast enhanced <sup>(1)</sup> ultrasound exams (CEUS). This Q-App also provides basic 2D measurement tools (distance, area) as well. For CEUS applications, multiple motion compensated regions can be defined for contrast bubble analysis to generate wash-in/wash-out curves for lesion blood flow assessment.

- ✓ Radiology
- ✓ Oncology
- ✓ Internal medicine

<sup>(1)</sup> Ultrasound contrast agents are approved for use in the USA for Left Ventricular Opacification (LVO), focal Liver lesions characterization, and for the evaluation of suspected or known vesicoureteral reflux in pediatric patients' urinary tract ultrasonography



## A novel measurement of atherosclerotic plaque volume

**US Q-App Vascular Plaque Quantification (VPQ)** helps you perform comprehensive volume analysis for carotid plaque; a significant indicator in cardiovascular disease. Automatically measure plaque composition throughout a captured volume, percent area vessel reduction and other characteristics using 3D technology. Results may be posted to patient exams.

- ✓ Vascular
- ✓ Radiology

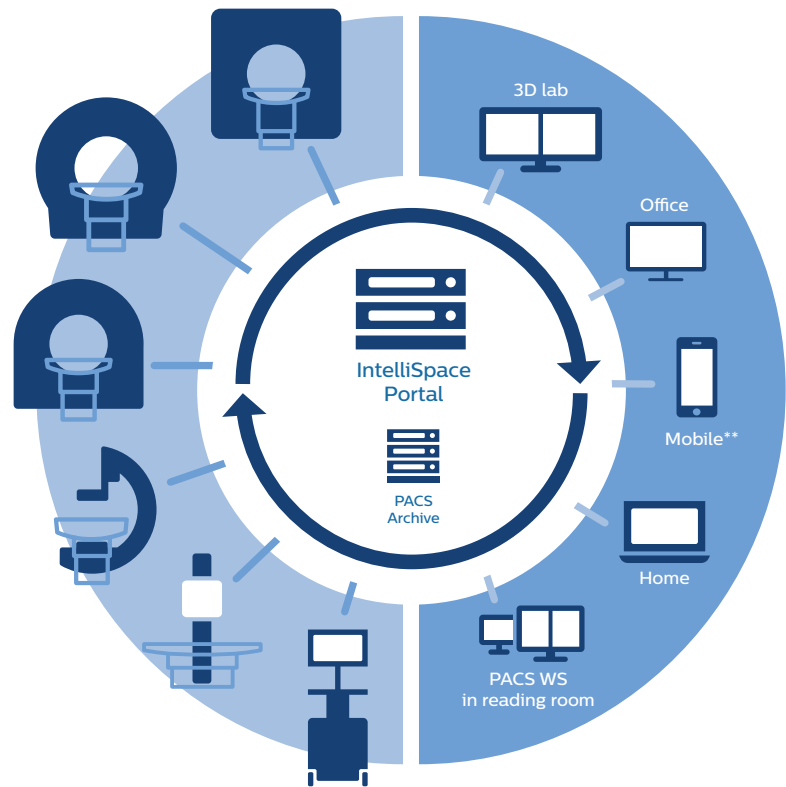






## Optimize workflow across modalities

In radiology, time is critical and patients requiring advanced visualization can have the most complex imaging studies. This makes efficient, streamlined working all the more important, from imaging, to results sharing, and reporting. A recognized leader in this field, IntelliSpace Portal 11 is designed to incorporate studies from a variety of imaging modalities on a single platform to support in providing a comprehensive patient view. It also supports analysis consistency across all primary modalities used within the facility. Philips offers multi-vendor coverage to connect to and process images from the different scanners in your department.\*



\* Please contact your local Philips representative for details on multi-vendor coverage.

\*\* Web Collaboration enables viewing and sharing with tablets and smartphone devices – not intended for diagnosis.



### Adaptive and responsive to your needs

With the machine learning feature, IntelliSpace Portal 11 automatically learns from your prior application usage to anticipate the series and data type on which pre-processing should be applied. Periodically, the feature re-learns usage patterns to track any changes in your imaging needs with no user configuration required. Combined with configurable hanging protocols, the portal optimizes to fit your specific needs.

## Results generation and sharing

Accelerate time from image acquisition to diagnosis with features such as enhanced zero-click segmentation, image preprocessing, fetching of priors, and guided workflows – to name just a few.

### Information sharing

Communicate with referring physicians easily and in the way you choose. Create a customized report for a comprehensive multi-modality workup that includes multiple patient findings, graphs, and tables.

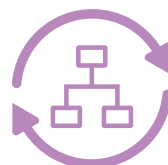
Take advantage of a variety of tools to capture, organize, store, and share information. Export clinical results directly into your enterprise's PACS or RIS using HL7 and DICOM. Save key images, notes, and tables directly to your reports, and combine multiple patient findings into a single patient-level report. Support consistency in your reporting with integrated PowerScribe360 functionality.

### Seamless PACS integration and beyond

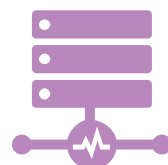
Review and complete entire cases in one session without leaving your chair. IntelliSpace Portal 11 makes it possible to integrate via open interfaces with Philips PACS or other vendor's PACS systems\*.

\* Requires integration with your PACS vendor which may varied between vendors

## Today and tomorrow: One solution that grows as you grow



Keeping pace with the evolution of clinical care and technology, Philips offers SW Maintenance Agreement contracts. In addition to keeping your system technically up to date, our packages may include training courses on the latest applications, clinical support, tailored workflow consulting, and more to help you can get the most out of your advanced analysis platform.



With the enterprise scalability of the IntelliSpace Portal, you can access the power of advanced analysis anywhere within your organization while maintaining consistent applications and user preferences. Enterprise deployment can scale as your organization grows helping drive collaboration across your network.

**Please ask your sales representative for more information on service and scalability options.**





**Make the most of your advanced analysis with real-time, context-based training.**

Turn to KnowledgeScape Clinical Education for on-the-spot support. Our training materials include step-by-step instructions on how to use each application and are updated continually. They reflect different learning styles and include clinical videos and whitepapers along with many other formats. Under service contract, every IntelliSpace Portal user can access these resources through the main screen or from within any application.



**Philips Real Time Assistance**

Philips Real-Time Assistance delivers direct access to a clinical expert for timely application support that enables:

- Streamlined workflows
- A high level of efficiency and productivity
- Uninterrupted patient care
- Scheduled real-time trainings based on your evolving needs

Philips clinical experts can personalize training to suit your specific needs and schedule. They bring clinical education to the point of care with no need for you to travel. This supports team-based learning that builds confidence and expertise.

The sessions are designed to help improve productivity, patient care and build staff capabilities in using clinical applications.

The Intellispace Portal has been named 2018 Category Leader in the Advanced Visualization category in the 2018 Best in KLAS<sup>\*\*</sup>: Software & Services report. The KLAS report names the topperforming healthcare IT software suppliers in global markets as reported by healthcare providers. The Category Leader designation is reserved for vendor solutions that lead select market segments in which at least two products meet a minimum level of KLAS confidence. The KLAS award recognizes Philips' ongoing commitment to helping drive improved treatment and outcomes, support appropriate imaging and treatment, simplify data and insight gathering, and reduce costs.

\* Optional feature, please consult with your local Phillips representative on availability

\*\* KLAS is an independent, leading research firm with the mission to improve healthcare technology delivery by honestly, accurately, and impartially measuring vendor performance for their provider partners.





# Philips IntelliSpace Portal

# 11

Experience the benefits of addressing all your clinical needs on a single workstation. Contact your Philips representative to find out more.

