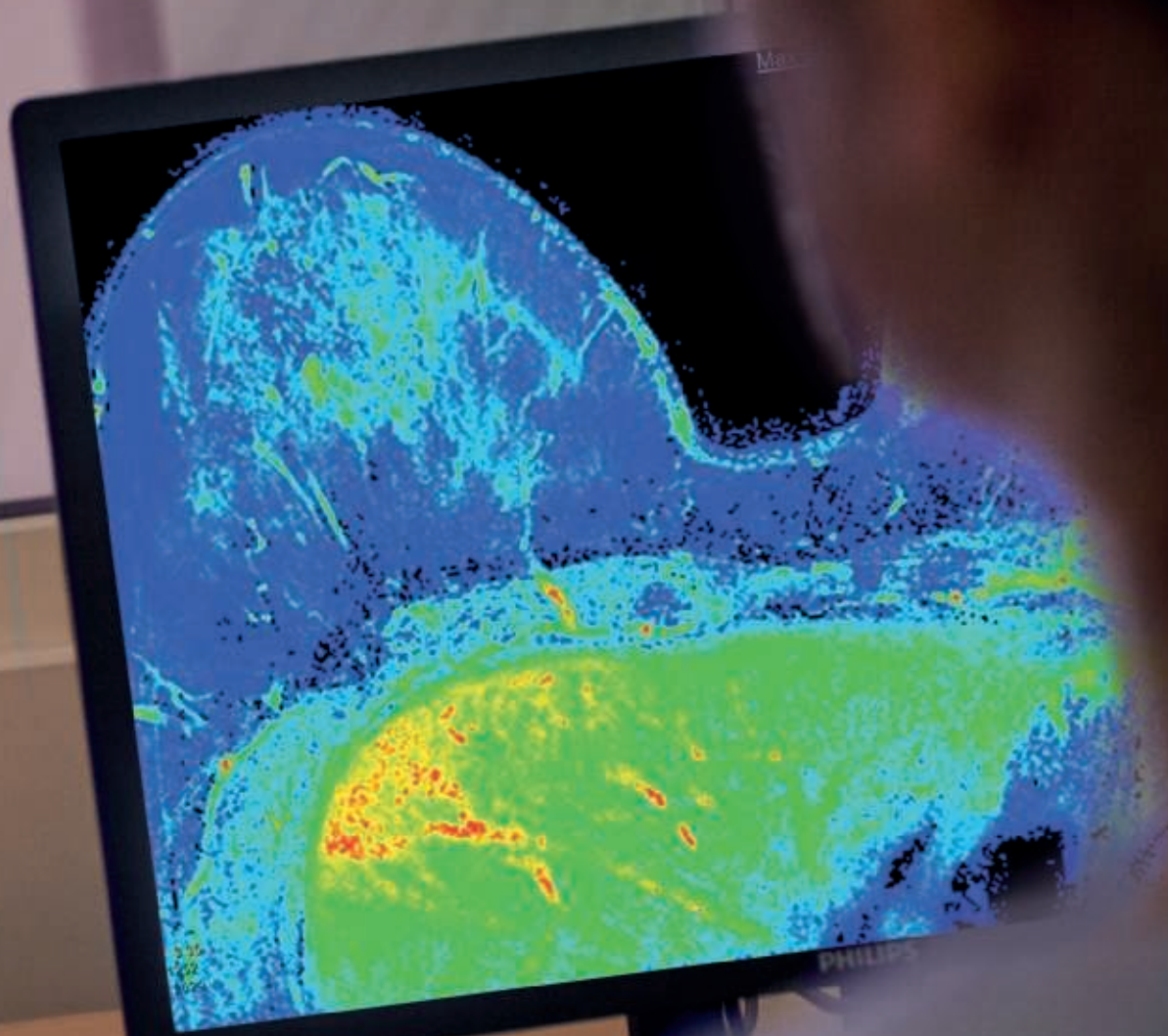
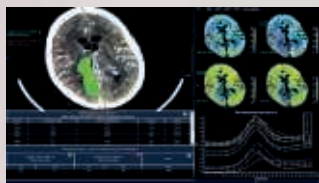


PHILIPS

IntelliSpace Portal 10

Clinical datasheet



All your advanced analysis needs

One comprehensive solution



Contents



A single solution for the most complex patients

Introduction	4
Key advantages	4

Clinical focus areas

Oncology	6
Cardiology	7
Neurology	7

Multi-modality applications

● 3D Modeling	8
● Multi Modality Advanced Vessel Analysis (AVA)	8
Multi Modality Viewer (MMV)	8
Multi Modality Tumor Tracking (MMTT)	9
Multi Modality Tumor Tracking qEASL	9

CT clinical applications

● Virtual Colonoscopy VeraLook CAD ⁽²⁾	10
● CT Cardiac Viewer	10
● CT Lung Nodule Assessment (LNA)	10
● CT Virtual Colonoscopy	10
CT Dual Energy Viewer	11
CT Brain Perfusion	11
CT Comprehensive Cardiac Analysis (CCA)	11
CT TAVI Planning	11
CT Advanced Vessel Analysis (AVA) Stent Planning	11
CT Acute MultiFunctional Review (AMFR)	12
CT Body Perfusion	12
CT Bone Mineral Analysis (BMA)	12
CT COPD	12
CT Calcium Scoring	12
CT Cardiac Plaque Assessment	12
CT Lung nodule CAD ⁽²⁾	13
CT-MI Fusion	13
CT Dental Planning	13
CT Dynamic Myocardial Perfusion (DMP)	13
CT EP Planning	13
CT Liver Analysis	14
CT Myocardial Defect Assessment	14
CT Pulmonary Artery Analysis (PAA)	14

CT spectral applications

● CT Spectral Light Magic Glass	16
CT Spectral Tumor Tracking	16
CT Spectral Comprehensive Cardiac Analysis	17
CT Spectral Advanced Vessel Analysis	17
CT Spectral Magic Glass on PACS	17

- New application
- Enhanced application

MR clinical applications

● DynaCAD Breast ⁽³⁾	18
● DynaCAD Prostate ⁽³⁾	18
● MR Advanced Diffusion Analysis	18
● MR Liver Health	18
● MR QFlow	19
● MR Cardiac	19
● MR Cardiac Quantitative Mapping	19
● MR Cardiac Whole Heart	19
● MR T1 Perfusion	20
MR Longitudinal Brain Imaging (LoBI)	20
MR NeuroQuant ⁽⁴⁾	20
MR T2* (Neuro) Perfusion	20
MR Cardiac Temporal Enhancement	20
MR Cartilage Assessment	20
MR Diffusion	20
MR Echo Accumulation	21
MR FiberTrak	21
MR IViewBOLD	21
MR MobiView	21
MR Permeability	21
MR SpectroView	21
MR Subtraction	21

MI clinical applications

● NM NeuroQ ⁽⁵⁾ Amyloid	22
● NM NeuroQ ⁽⁵⁾ 3.75	22
NM Corridor4DM ⁽⁶⁾ 2016	22
NM Review	23
NM Cedars-Sinai Cardiac Suite 2015 ⁽⁵⁾	23
NM Emory Cardiac Toolbox (ECTb) v4.1 ⁽⁸⁾	23
NM Emory Cardiac Toolbox (ECTb) HeartFusion ⁽⁸⁾	23
NM Emory Cardiac Toolbox (ECTb) SyncTool ⁽⁸⁾	24
NM Astonish Reconstruction	24
NM JETPack Application Suite	24
NM Processing Application Suite	24

US clinical applications

US Viewing (in MMV)	25
US Q-App Elastography Quantification (EQ) ⁽¹⁰⁾	25
US Q-App Elastography Analysis (EA) ⁽⁵⁾	25
US Q-App General Imaging 3D Quantification (GI3DQ)	25
US Q-App Intima Media Thickness (IMT)	25
US Q-App MicroVascular Imaging (MVI)	26
US Q-App Region of Interest (ROI) ⁽⁹⁾	26
US Q-App Vascular Plaque Quantification (VPQ)	26

Optimize workflow

Optimize workflow across modalities	28
Adaptive and responsive to your needs	28
Results generation and sharing	29
Information sharing	29
Seamless PACS integration and beyond	30
One solution that grows as you grow	31
Make the most of your advanced analysis	30
Philips Real Time Assistance	30
Best in KLAS 2018	30

⁽¹⁾ VeraLook is a trademark of ICAD inc. and is available for sale only in the US

⁽²⁾ CAD functionality is not available for sale in the US

⁽³⁾ DynaCAD are registered trademarks of InVivo Corporation

⁽⁴⁾ NeuroQuant is a trademark of CorTechs Labs, Inc.

⁽⁵⁾ Not available for sale in all countries. Please check for availability in specific countries

⁽⁶⁾ Corridor4DM is a registered trademark of Invia, LLC.

⁽⁷⁾ NeuroQ is a trademark of Syntermed

⁽⁸⁾ Emory Cardiac Toolbox, ECTb, HeartFusion, and SyncTool are registered trademarks of Emory University

⁽⁹⁾ Ultrasound contrast agents are approved for use in Left Ventricular Opacification (LVO) applications ONLY in the USA

⁽¹⁰⁾ Not available for sale in the US

A single solution for the most complex patients

Philips IntelliSpace Portal 10 is an advanced visualization platform that offers a single integrated solution designed to help physicians work quickly – especially for complex cases and follow-up.

Key advantages

- Obtain a comprehensive overview of patients; quantify and diagnose using multi-modality clinical applications accessed from any point of your network
- Take advantage of a broad range of leading clinical applications that span multiple domains
- Focus more on patient's treatment thanks to workflow efficiencies and time-saving tools that automatically adapt to the way you work



All your advanced visualization needs – in one place

Multiple clinical domains, one standard for diagnosis

IntelliSpace Portal 10 supports you extend your clinical depth and coverage. Leverage a broad range of over 80 applications, including enhanced functionality designed by clinicians for clinicians. Spanning clinical domains including oncology, cardiovascular, neurology, pulmonology and others, these applications offer exceptional flexibility to access, analyze, and quantify patient data in one unified view. IntelliSpace Portal 10 delivers 20 new and enhanced applications allowing you to experience the latest IntelliSpace Portal clinical innovations.

Multiple advanced tools, one consistent workflow

Designed to optimize your workflow, IntelliSpace Portal 10 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%*, in addition, task guidance, and context-based clinical decision support tools, to support your workflow. Recently introduced machine learning capabilities that learn your preprocessing patterns and anticipate your usage patterns before you even open cases.

* 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 10 handles CT, MR, MI, US, iXR, and DXR data even from multiple vendors** within a consistent multi-modality viewing environment, giving you a comprehensive view of your patient related information from one chair. IntelliSpace Portal 10 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 RightFit Service*** Agreements 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.

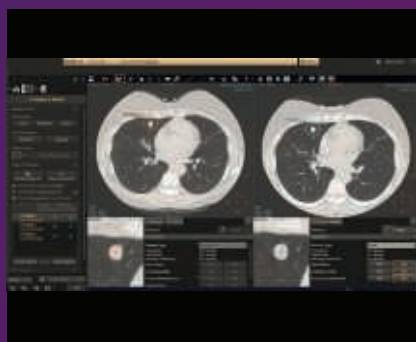
** Please contact your local Philips representative for details on multi-vendor coverage.

*** Consult your local Philips representative for information on RightFit Service Agreements.

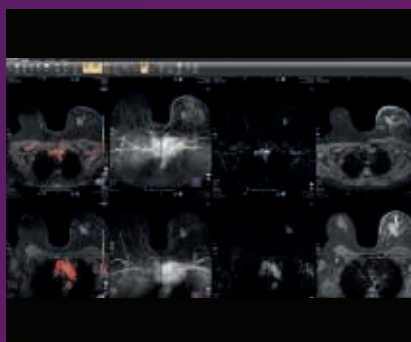
Clinical focus areas

Oncology

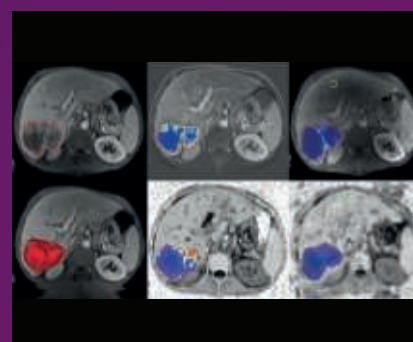
Cancer patients require constant vigilance. IntelliSpace Portal 10 provides tools designed to help you evaluate the stage and treatment response at multiple time points – and efficiently perform essential follow-ups. Advanced 3D and graphical tools help you store, present, and communicate clinical information to support diagnostic confidence and productive collaboration. New DynaCAD capabilities provide tools to assist in review, diagnose and report Breast and Prostate cases.



● CT Lung Nodule Assessment



● DynaCAD Breast⁽¹⁾



Multi Modality Tumor Tracking qEASL

Oncology applications in IntelliSpace Portal 10

- DynaCAD Breast⁽¹⁾
- DynaCAD Prostate⁽¹⁾
- Virtual Colonoscopy VeraLook CAD⁽²⁾
- MR Advanced Diffusion Analysis
- 3D Modeling
- CT Virtual Colonoscopy
- CT Lung Nodule Assessment (LNA)
- MR T1 Perfusion
- CT Body Perfusion
- CT Liver Analysis
- CT Lung Nodule (CAD)⁽³⁾
- CT Spectral Magic Glass on PACS
- CT Spectral Tumor Tracking
- CT Spectral Viewer
- CT Virtual Colonoscopy CAD⁽³⁾

- MR MobiView
- MR SpectroView
- MR Subtraction
- Multi Modality Tumor Tracking (MMTT)
- Multi Modality Tumor Tracking qEASL
- NM Processing Application Suite
- NM Review
- US Q-App General Imaging 3D Quantification (GI 3DQ)
- US Q-App Region of Interest (ROI)⁽⁴⁾

- New
- Enhanced

⁽¹⁾ DynaCAD are registered trademarks of InVivo Corporation. Not available for sale in all countries. Please check for availability in specific countries.

⁽²⁾ VeraLook is a trademark of iCAD inc. and is available for sale only in the US

⁽³⁾ CAD functionality is not available for sale in the US

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

Cardiology

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 10:

- 3D Modeling
- CT Cardiac Viewer
- Modality Advanced Vessel Analysis (AVA)
- MR Cardiac
- MR Cardiac Quantitative Mapping
- MR Cardiac Whole Heart
- MR QFlow
- CT Advanced Vessel Analysis (AVA) Stent Planning
- CT Comprehensive Cardiac Analysis (CCA)
- CT Calcium Scoring
- CT Cardiac Plaque Assessment
- CT Dynamic Myocardial Perfusion (DMP)
- CT EP Planning
- CT-MI Fusion
- CT Myocardial Defect Assessment
- CT Spectral Comprehensive Cardiac Analysis
- CT Spectral Viewer
- CT Spectral Magic Glass on PACS
- CT Spectral Advanced Vessel Analysis
- CT TAVI Planning
- MR Cardiac Functional Analysis
- MR Cardiac Temporal Enhancement
- MR Cardiac Spatial Enhancement
- NM Astonish Reconstruction
- NM Cedar-Sinai Cardiac Suite 2015⁽¹⁾
- NM Corridor 4DM⁽²⁾ 2016
- NM Emory Cardiac Toolbox (ECTb) v4.1⁽³⁾
- NM Emory Cardiac Toolbox (ECTb) HeartFusion^{®(3)}
- NM Emory Cardiac Toolbox (ECTb) SyncTool^{®(3)}
- NM Processing Applications Suite
- NM Review
- 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)

⁽¹⁾ Not available for sale in all countries. Please check for availability in specific countries

⁽²⁾ Corridor4DM is a registered trademark of Invia, LLC.

⁽³⁾ 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 10 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. The IntelliSpace Portal 10 neurology package includes a longitudinal brain lesion tracker and smart ROI tools that are designed to support diagnostic confidence.

Neurology applications in IntelliSpace Portal 10:

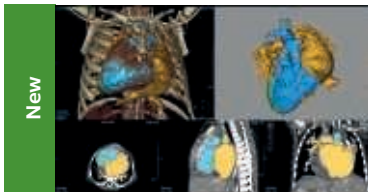
- CT Spectral Light Magic Glass
- 3D Modeling
- MR Advanced Diffusion Analysis
- MR T2* (Neuro) Perfusion
- NM NeuroQ⁽¹⁾ 3.75
- NM NeuroQ⁽¹⁾ Amyloid
- CT Brain Perfusion
- CT Spectral Advanced Vessel Analysis
- CT Spectral Viewer
- CT Spectral Magic Glass on PACS
- Multi Modality Viewer (MMV)
- Multi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

⁽¹⁾ NeuroQ is a trademark of Syntermed

⁽²⁾ NeuroQuant is a trademark of CorTechs Labs, Inc.



Multi Modality (MM) – Clinical applications



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.

✓ General

Whether importing 3D segmentations from applications within the Portal or creating your own custom models directly from DICOM images, 3D Modeling offers a suite of clinically focused rendering and editing tools to optimize a model for printing, and to allow reflection of 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 that can be used for communication in the department, which may facilitate communication with 3D printing services and aid in model presentations.

A variety of export options help streamline the transference of your file to a printing service, or for hospital internal use.



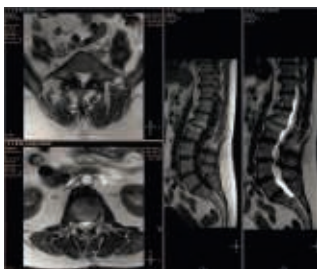
Comprehensive vascular analysis planning

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* 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.

✓ Vascular
✓ Surgery
✓ Neurology
✓ Cardiology

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.

*Compared to the Philips EBW v4.x workstation



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

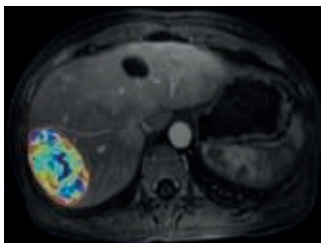
Multi Modality (MM) – Clinical applications



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



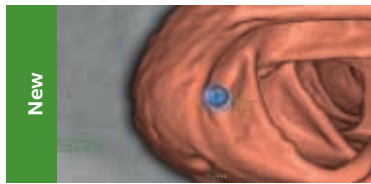
Semi-automatic tumor quantification

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 pre-defined reference region.

- ✓ Oncology



CT – Clinical applications



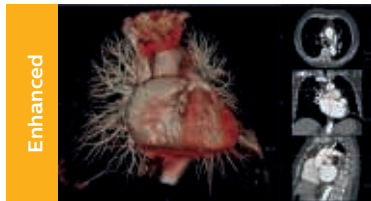
New

Automatically detect potential polyps in CT colonography exams

VC VeraLook CAD⁽¹⁾ 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.

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

✓ Oncology



Enhanced

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



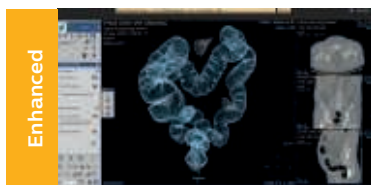
Enhanced

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⁽¹⁾ streamline follow-up readings. The application also features a Risk Calculator⁽¹⁾ 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. IntelliSpace Portal 10 meets 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.

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

✓ Oncology
✓ Surgery
✓ Pulmonary



Enhanced

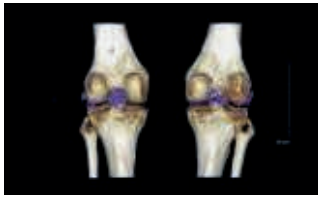
Reduce reading times in virtual colonoscopy

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 uni-directional view, reducing the need to review in both directions. IntelliSpace Portal 10 delivers an enhanced version of the application, including: colon editing GUI with improved workflow and usability; simplified floating dialog with editing tools per segment; new centerline drawing capabilities allowing creation of a complete new centerline over the whole colon while keeping the segmentation intact; centerline creation allows immediate update of centerline points; optimized layout for centerline creation and editing; VC user preference for: colon color, cleaning method, "Save User Settings" – to save preferences for application options : compare, link, spread mode and layout; and new "mirror layout" for dual monitor mode.

✓ Oncology
✓ Surgery

* 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.

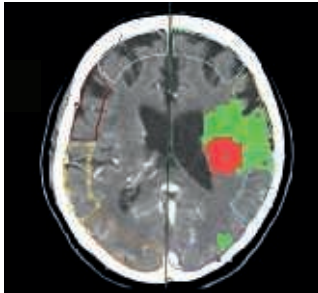
CT – Clinical applications



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

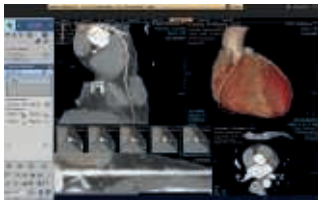


Identify hypo perfused areas in acute stroke

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 which offer valuable clinical information in acute stroke patients to assist in treatment planning. 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

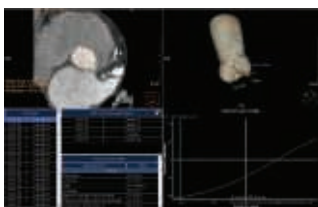
✓ Surgery



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



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, semi-automated 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



Endovascular stent placement

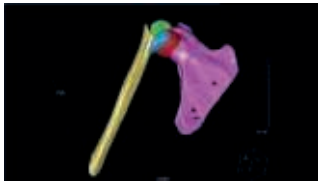
CT Advanced Vessel Analysis (AVA) Stent Planning includes multiple preset and user-defined options to gain detailed information for use in stent planning. The application allows you to export customized results to external reporting systems.

✓ Vascular

✓ Surgery



CT – Clinical applications



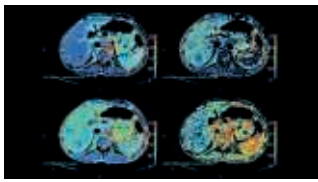
One application for systematic review

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

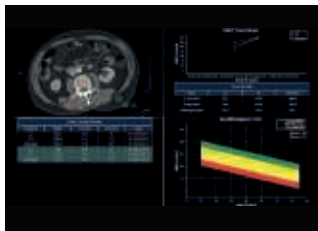
- ✓ Surgery
- ✓ Trauma
- ✓ MSK
- ✓ Vascular



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 optimal neuro results.

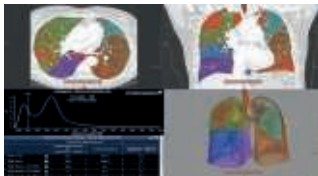
- ✓ Oncology



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.

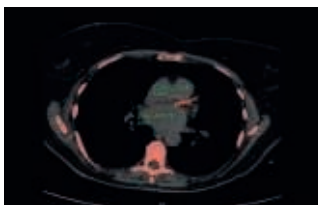
- ✓ MSK
- ✓ Orthopedics



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.

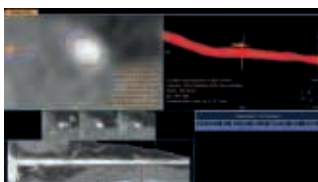
- ✓ Pulmonary



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.

- ✓ Cardiology
- ✓ Pulmonary



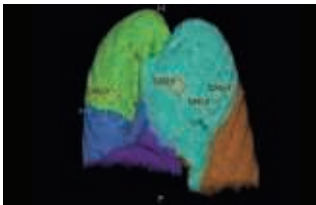
Evaluate coronaries plaque

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

* Muller DK, et al., Phantom-less QCT BMD system as screening tool for osteoporosis without additional radiation. Eur J Radiol. 2011; 79(3):375–81

CT – Clinical applications

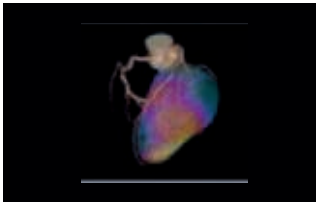


Rely on an artificial second reader

CT Lung Nodule CAD⁽¹⁾ 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.

⁽¹⁾ CAD functionality not available for sale in the US

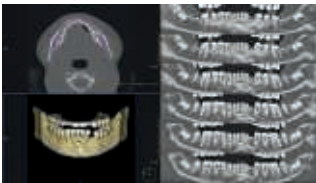
✓ General



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.

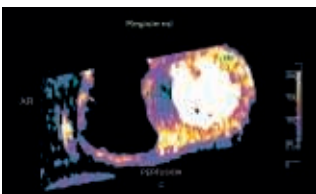
✓ Cardiology



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 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



EP procedures planning

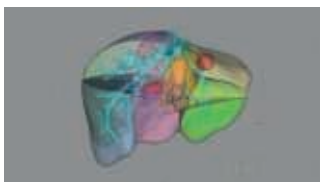
CT EP Planning provides overall assessment of pulmonary veins, left atrial, and appendage anatomy, enabling the electrophysiologist to identify anatomy that may complicate the EP procedure.

✓ Cardiology

✓ Surgery



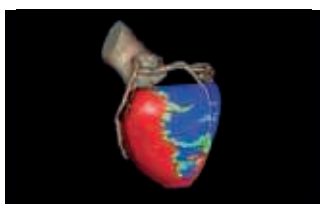
CT – Clinical applications



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 semi-automatically 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.

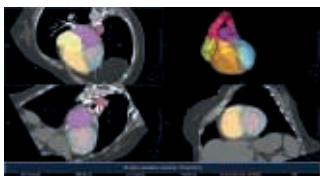
- ✓ Oncology
- ✓ Surgery



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⁽¹⁾ 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.

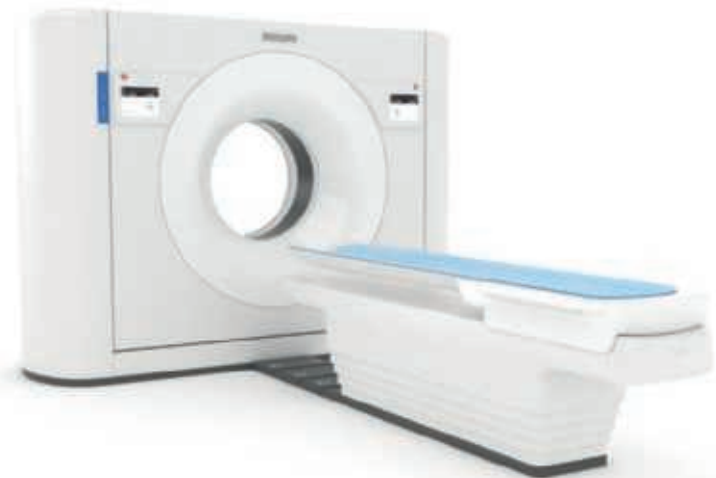
- ✓ Oncology
- ✓ Pulmonary

(1) CAD functionality not available for sale in the US

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)
- Switching to various spectral results can be done through a viewport control
- Manage presets to create user/site-specific presets
- Lesion characterization using scatter plots
- Tissue characterization using attenuation curves

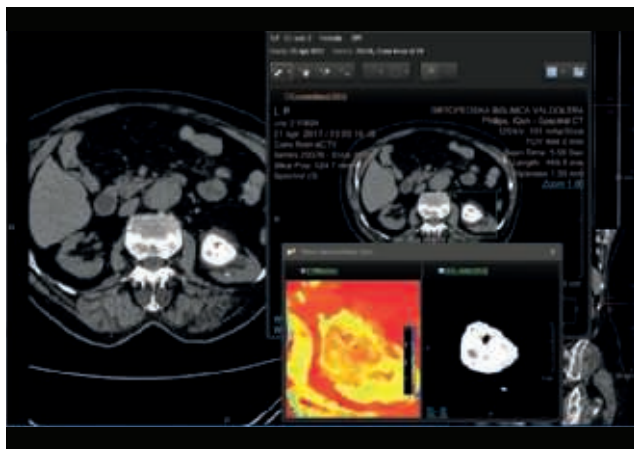


IQon* CT reconstruction provides a single DICOM entity containing sufficient information for retrospective analysis - Spectral Base Image (SBI). SBI contains all the spectrum of spectral results with no need for additional reconstruction or post-processing. Spectral applications are creating different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

** based on IntelliSpace Portal clients availability in the enterprise



Spectral applications

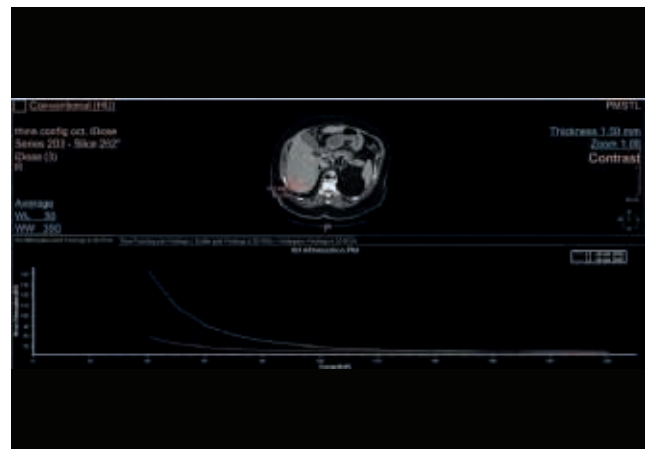


New

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 – even for application that were not developed to support Spectral functionality:

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

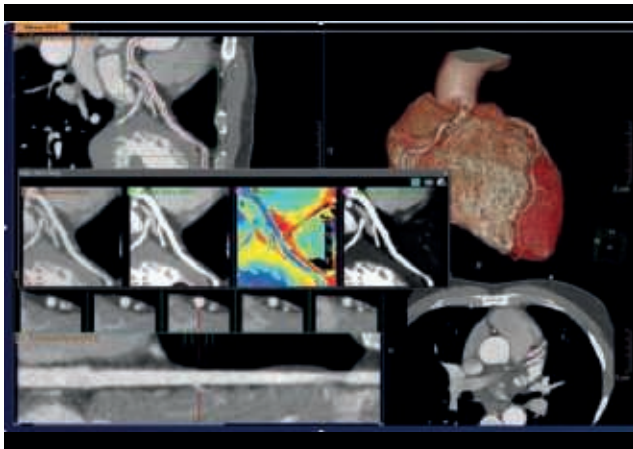


CT Spectral Tumor Tracking (part of MM MTT)

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.

Highlights

- 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 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.

Highlights

- Automatic chamber and coronary segmentation using monoenergetic images
- Beam hardening reduction for: – perfusion deficits visualization – calcified plaque visualization
- Spectral Light Magic Glass

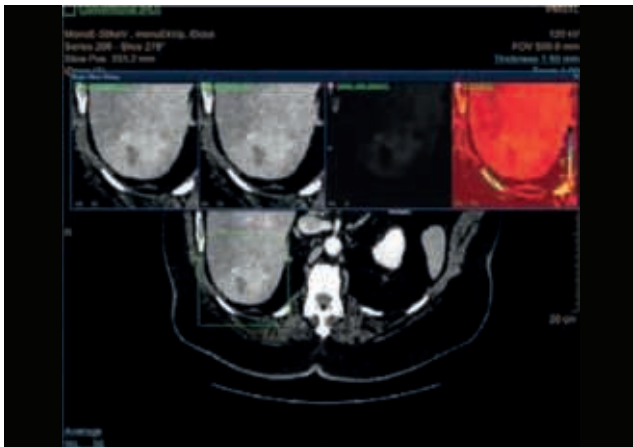


CT Spectral Advanced Vessel Analysis

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.

Highlights

- 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 Magic Glass on PACS*

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.

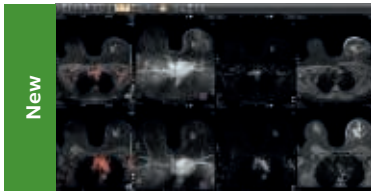
Highlights

- 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

*Standard with the CT Spectral option on IntelliSpace Portal 10



MR – Clinical applications



New

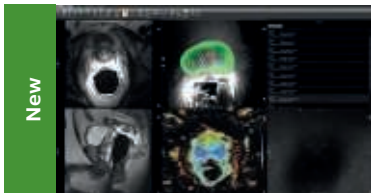
Purpose-built to streamline workflow and maximize productivity for MR Breast reading

DynaCAD Breast⁽¹⁾, 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⁽²⁾ 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

✓ Oncology

⁽¹⁾ Not available for sale in all countries. Please contact local Philips representative for details.

⁽²⁾ Please contact local Philips representative for details on multivendor coverage.



New

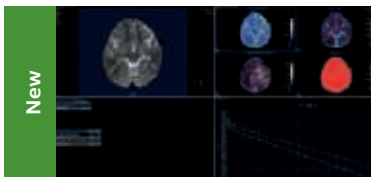
Designed to enhance confidence, productivity, and accuracy for MR Prostate reading

DynaCAD Prostate⁽¹⁾, provides a powerful, easy-to-navigate, multi-vendor⁽²⁾ 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 a UroNav system for fusion biopsy.

✓ Oncology

⁽¹⁾ Not available for sale in all countries. Please contact local Philips representative for details.

⁽²⁾ Please contact local Philips representative for details on multivendor coverage.



New

Enhance your workflow

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, bi-exponential, simplified IVIM, and kurtosis. A 'goodness of fit' value and fitted curve show the fitting quality of the selected model.

✓ Neurology

✓ Oncology

The application also provides parametric maps of perfusion fraction (f), pseudo diffusivity (D*), Diffusivity (D) and Kurtosis (K)."



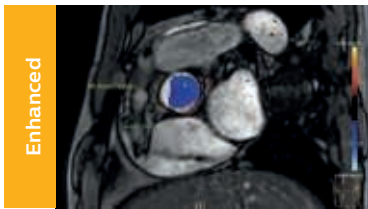
New

Simplify workflow with automated calculation of whole liver volume

MR Liver Health. Provide global liver information from MR mDIXON images, including volume, fat fraction, T2*, and R2* parameters from the whole liver or from ROIs in an automatic and non-invasive manner. Enhances accuracy of the liver segmentation for referrers, by showing images of segmentation with and without T2* threshold correction.

✓ Radiology

MR – Clinical applications



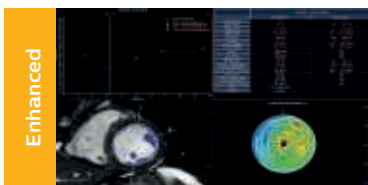
Visualizing and quantifying blood flow dynamics

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 offset correction required for q-flow data of certain MR vendors.

- ✓ Vascular
- ✓ Cardiology

New:

- Integrate QFlow as part of MR Cardiac Suite
- Allow comparison of flow results to cardiac function in ONE suite
- Qflow and Function (and other analysis) combined reporting



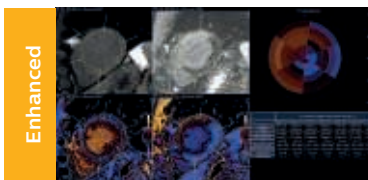
Detailed quantification of cardiac function

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.

- ✓ Cardiology

Enhanced functions:

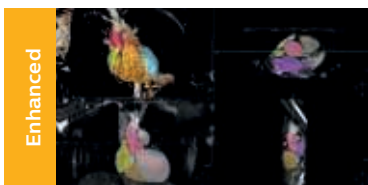
- Functional, LV\RV segmentation - more manual (free hand) segmentation tools for both LV and RV workflow to provide alternatives compared to previous versions.



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

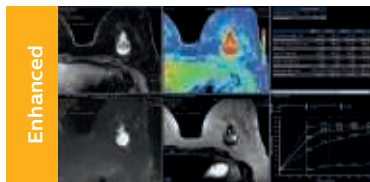
MR Cardiac Whole Heart performs automated segmentation of the heart into individual segments such as left-ventricle, right-ventricle, atria, and coronaries. Results can be presented in 3D rendering visualization. Now with STL/VTK export functionality to aid in printing of 3D models, and enhanced scene support. 'Create new tissue segment' 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

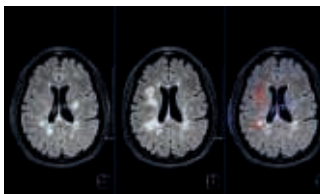


Enhanced

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^{®(2)} 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

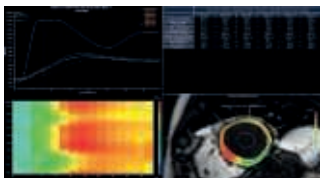
(2) NeuroQuant is a trademark of CorTechs Labs, Inc.



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.

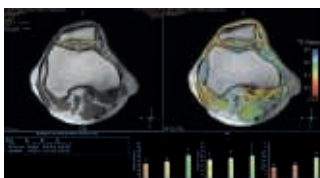
✓ Neurology



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.

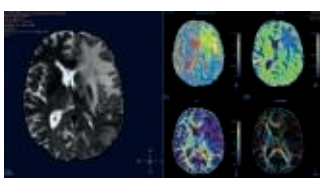
✓ Cardiology



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

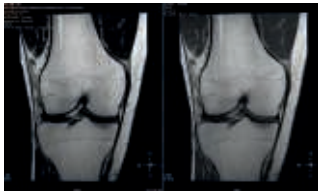


Detailed review of diffusion indicated lesions

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

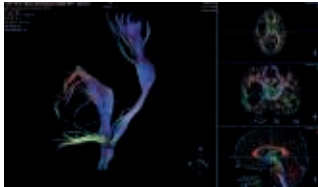
MR – Clinical applications



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.

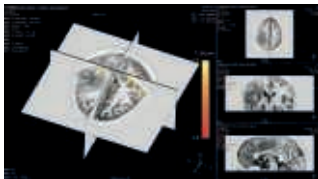
✓ Orthopedics



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.

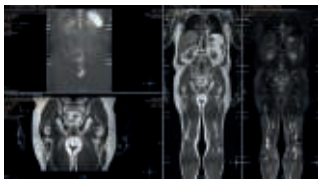
✓ Neurology



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.

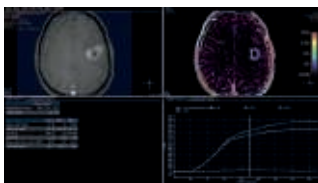
✓ Neurology



Automatic review of total body MR data

MR MobiView combines multiple images into a single full-field view to review multi-scanner acquisitions. MobiView is easily displayed with a single mouse click in the IntelliSpace Portal Multi Modality Viewer. Zero-click display is also available using predefined protocol. 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.

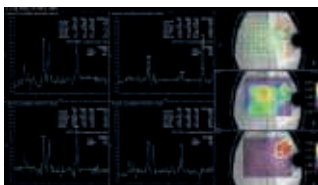
✓ Oncology
✓ Neurology



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.

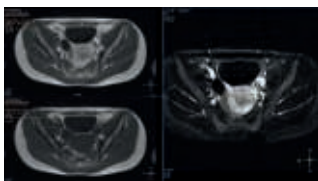
✓ Oncology
✓ Neurology



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 (MTC) images from an appropriate set of input images. Weighting factors can be defined to influence the subtraction or MTC outcome.

✓ Neurology
✓ Oncology



Assessing Amyloid plaque

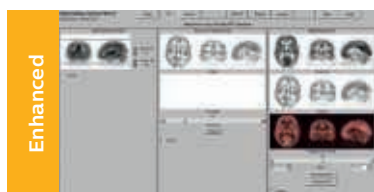
The **NM NeuroQ* Amyloid** analysis tool is designed to help clinicians to assess the presence or absence of Amyloid plaque in the brain. Provides quantitative analysis tools for Brain PET scans using NeuraCeq or Amyvid agents.

✓ Neurology

Benefits:

- NeuraCeq database (Piramal)
- Quantitative analysis of amyloid uptake levels in the brain
- Designed to support confidence in the diagnosis and alter treatment plan

* NeuroQ is a trademark of Syntermed.



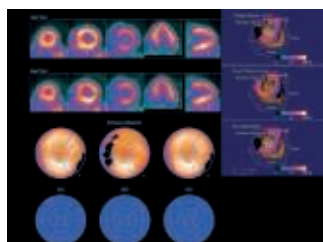
Aiding in the differential diagnosis of dementia

The **NM NeuroQ 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 sometimes it's hard to detect differences between two PET scans on the same patient taken at different points in time.

✓ Neurology (PET)

Benefits of the new version

- 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)



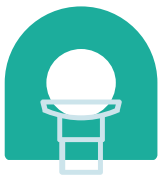
SPECT and PET cardiovascular quantification, review, and reporting

NM Corridor4DM⁽¹⁾ 2016 is designed for advanced cardiovascular quantification and image display and includes intelligent workflow and quality assurance measures. 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. The most recent enhancements include:

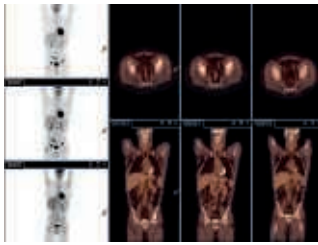
✓ Cardiology

- 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

⁽¹⁾ Corridor4DM is a registered trademark of Invia, LLC.



MI – Clinical applications

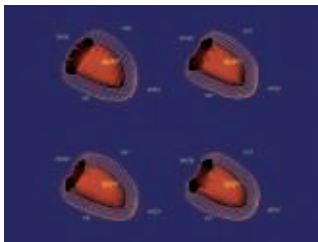


Enterprise-wide MI review

NM Review provides a powerful MI and multi-modality image review and analysis environment for clinical evaluation of MI planar, SPECT, SPECT/CT, PET/CT, and PET/MR examinations. It offers:

- Layouts Selection, allows user to define different layouts for different presets. For each preset the user will have 4 different layouts.
- MPR, MIP and fused 3D volume display
- Enhanced application with continuous scrolling option added
- 2D and 3D SUV measurements: SUV Body Weight, SUV Lean Body Mass, SUV Body, Surface Area, and SUV Body Mass Index
- Automated 3D segmentation of lesions based on SUV value or percentage of SUV max, and the ability to export 3D contours in DICOM-RT Structure Set format to radiation therapy planning systems

- ✓ Cardiology
- ✓ Oncology
- ✓ Neurology



Advanced cardiac quantification

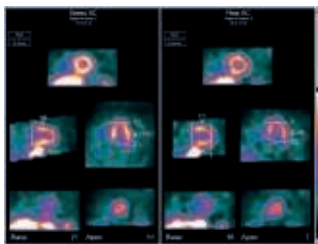
Developed at Cedars-Sinai Medical Center in Los Angeles, California, **NM Cedars Sinai Cardiac Suite 2015**⁽²⁾ provides comprehensive cardiac quantification tools for gated, perfusion, and blood pool SPECT and quantitative PET. Well known by clinicians worldwide, the Cedars-Sinai Cardiac Suite 2015 application provides efficient workflow for study interpretation with exclusive integration of perfusion and function.

New enhancements:

- 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

⁽²⁾ 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**⁽³⁾ 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

⁽³⁾ Emory Cardiac Toolbox, ECTb, HeartFusion, and SyncTool are registered trademarks of Emory University.

- ✓ Cardiology



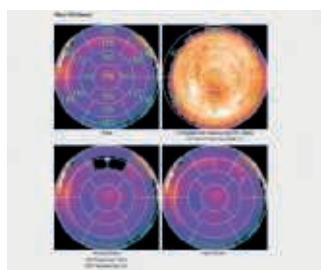
Evaluate fused coronary anatomy

NM Emory Cardiac Toolbox (ECTb) HeartFusion⁽¹⁾ 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.

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

- ✓ Cardiology

MI – Clinical applications

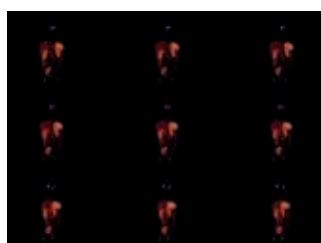


Assess cardiac mechanic dyssynchrony

NM Emory Cardiac Toolbox (ECTb) SyncTool⁽¹⁾ 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.

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

✓ Cardiology



Enhance SPECT resolution

NM Astonish Reconstruction is an advanced reconstruction algorithm that uses a Philips-patented matched dual filtering technique to minimize noise and improve reconstructed image resolution and uniformity. Additionally, a CT attenuation map can be used in conjunction with NM Astonish Reconstruction to provide attenuation correction. By improving signal-to-noise ratio, it can provide equivalent image quality which may shortened shortened SPECT scan times to achieve increased throughput, enhanced patient comfort, and reduced motion-induced artifacts. NM Astonish Reconstruction is compatible with the following Philips cameras only: CardioMD (acquisition software v2.x), Forte, BrightView, BrightView X, BrightView XCT, SkyLight, and Precedence.

✓ Cardiology
✓ Bone SPECT

Benefits

- Offers multiple clinical benefits including improved image resolution and improved workflow efficiency
- Enables half-time cardiac SPECT imaging using supported Philips systems for improved workflow efficiency while maintaining image quality
- Supports interpretative certainty and diagnostic accuracy
- Can be applied to SPECT studies using Tc-99m, Tl-201, In-111, Ga-67, I-123, or I-131 and used for most Molecular Imaging procedures

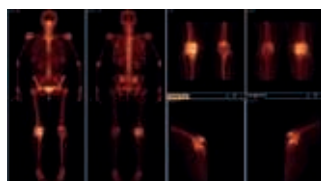


Generate new clinical insights

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⁽¹⁾ developers' kit is available for development of applications.

⁽¹⁾ 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 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.

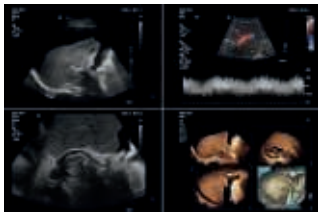
✓ General
Molecular
Imaging

Benefits:

- AutoSPECT Pro provides 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.



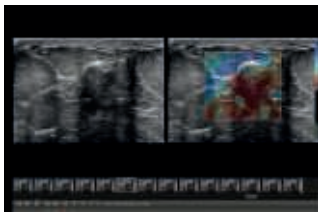
US – Clinical applications



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 Viewer), clinicians can perform measurements, annotations, zoom anatomy and adjust window/levels controls. Edited images can be appended to the patient's exam for complete documentation. Multi Modality Viewing on IntelliSpace Portal 10 supports additional Q-App tools for advanced quantification of ultrasound data.

- ✓ Radiology
- ✓ Oncology
- ✓ Internal medicine

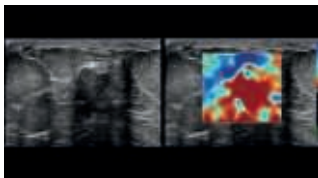


Explore new tissue stiffness measurements

US Q-App Elastography Quantification (EQ)⁽¹⁾ 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.

⁽¹⁾ Not available for sale in the US

- ✓ Radiology
- ✓ Internal medicine

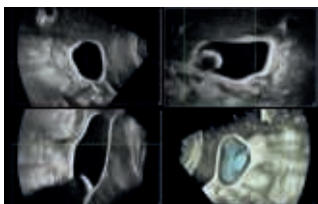


Explore new tissue stiffness measurements

US Q-App Elastography Analysis (EA)⁽²⁾ 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.

⁽²⁾ Only available for sale in the US

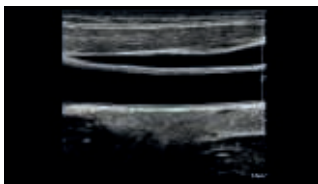
- ✓ Radiology
- ✓ Internal medicine



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

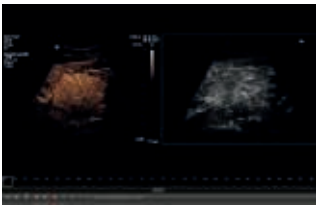


Support in determining cardiovascular disease risk

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

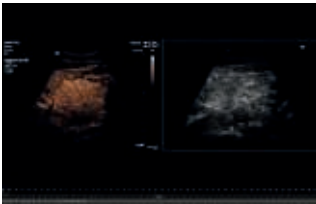
US – Clinical applications



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

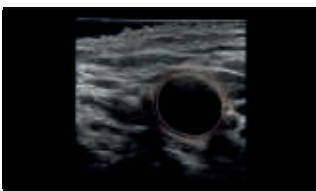


Perform advanced analysis of 2D, color, and Contrast Enhanced Ultrasound data

The Q-App Region of Interest (ROI) provides dedicated tools for spatial and temporal analysis of regions of interest in 2D, color and contrast enhanced ⁽¹⁾ 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.

⁽¹⁾ 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

- ✓ Radiology
- ✓ Oncology
- ✓ Internal medicine



A novel measurement of atherosclerotic plaque volume

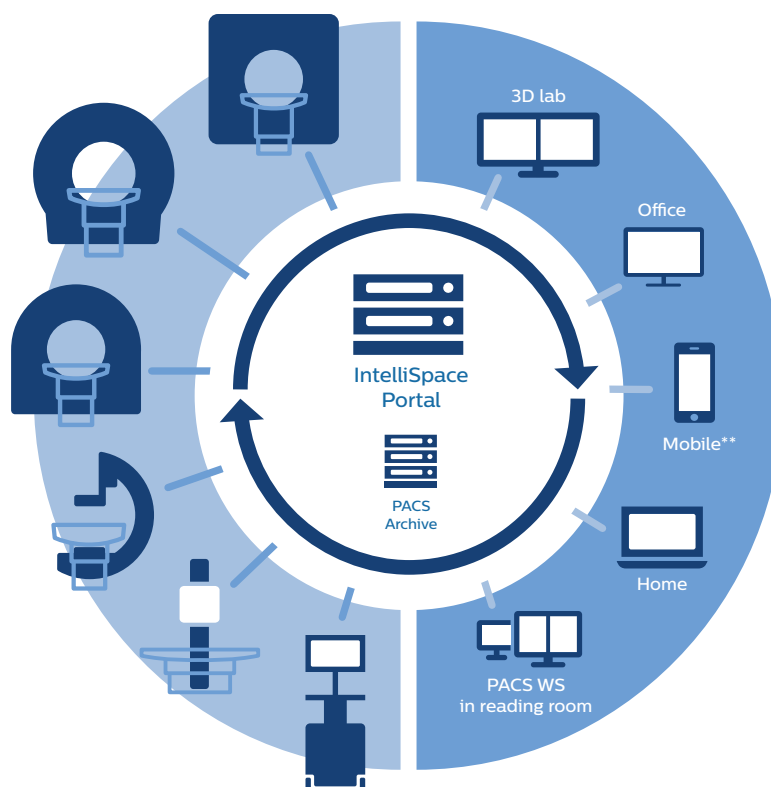
US Q-App Vascular Plaque Quantification (VPQ) helps you perform comprehensive volume analysis for carotid plaque; a significant indicator in cardiovascular disease. Automatically measure plaque composition throughout a captured volume, percent area vessel reduction and other characteristics using 3D 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 10 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 support 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 10 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 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.

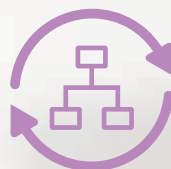
Take advantage of a variety of tools to capture, organize, store, and share information. Export clinical results directly into your enterprise's PACS or RIS using HL7 and DICOM. Save key images, notes, and tables directly to your reports, and combine multiple patient findings into a single patient-level 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 10 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 vary between vendors

Today and tomorrow: One solution that grows as you grow



Keeping pace with the evolution of clinical care and technology, Philips offers RightFit service contracts. In addition to keeping your system technically up to date, our packages may include training courses on the latest IntelliSpace Portal applications, clinical support, tailored workflow consulting, and more to help you 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 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.

With Philips Real Time Assistance, get the benefit of

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

- Streamlined workflows
- 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 in improving team-based learning 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^{**}: Software & Services report. The KLAS report names the top-performing 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**

10

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

