IntelliSpace Portal 9.0
Clinical datasheet

All your advanced analysis needs
One comprehensive solution
A single solution for the most complex patients

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New application
Enhanced application

(1) Pending 510(k), not available for sale in the US
(2) CAD functionality not available for sale in the US
(3) Not available for clinical use in the US
(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) Emory Cardiac Toolbox, ECTb, HeartFusion, and SyncTool are registered trademarks of Emory University
(8) NeuroQ is a trademark of Syntermed
(9) Not available for sale in the US
(10) Only available for sale in the US
A single solution for the complex patients

Philips IntelliSpace Portal 9.0 is an advanced visualization platform that offers a single integrated solution to help you work quickly with increased diagnostic confidence – especially for complex cases and follow-up.

Key advantages

• Obtain a comprehensive overview of each patient; and quantify and diagnose quickly 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

• Spend more time treating patients 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 9.0 helps you extend your clinical depth and coverage. Leverage a broad range of over 70 applications, including enhanced functionality designed by clinicians for clinicians. Spanning clinical domains including neurology, oncology, cardiovascular, pulmonary and others, these applications offer exceptional flexibility to access, analyze, and quantify patient data in one unified view. IntelliSpace Portal 9.0 delivers 20 new and enhanced applications allowing you to experience the latest in clinical innovation.

Multiple advanced tools, one consistent workflow
Designed to optimize your workflow, IntelliSpace Portal 9.0 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%*, task guidance, and context-based clinical decision support tools. Newly introduced algorithms learn your preprocessing patterns and anticipate your usage patterns before you even open cases.
Multiple modalities, one comprehensive view
IntelliSpace Portal 9.0 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’s condition from one chair. IntelliSpace Portal 9.0 now 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 with Philips RightFit Service*** Agreements which allow you to take advantage of a steady stream of clinical and IT innovations. 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.
All your clinical needs – on one single platform

With these advanced multi-modality applications on IntelliSpace Portal 9.0, you can quickly and easily share rich clinical insight and input for treatment planning with the care teams managing the disease.
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(2) NeuroQuant is a trademark of CorTechs Labs, Inc.
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(10) Not available for sale in the US.
Clinical focus areas
Neurology

Neurological cases can be challenging – especially strokes, where “time is brain” and you need to act fast. IntelliSpace Portal 9.0 offers a rich suite of tools that help you assess recoverable tissue quickly and easily, and evaluate neurological degenerative diseases. Key enhancements to the IntelliSpace Portal 9.0 neurology applications, including a longitudinal brain lesion tracker and smart ROI tools, are designed to increase diagnostic confidence.

Neurology applications in IntelliSpace Portal 9.0:
- CT Spectral Advanced Vessel Analysis
- MR Longitudinal Brain Imaging (LoBI)
- MR NeuroQuant
- CT Brain Perfusion
- MR T2* (Neuro) Perfusion
- Multi Modality Advanced Vessel Analysis (AVA)
- MR Diffusion
- NM EQuAL
- MR FiberTrak
- MN IViewBOLD
- MR MobiView
- NM NeuroQ 3.7
- NM NeuroQ Amyloid
- MR Perfusion Diffusion Mismatch
- MR Permeability
- MR SpectroView
- MR Subtraction
Oncology

Cancer patients require constant vigilance. IntelliSpace Portal 9.0 provides a rich set of applications that help you assess tumor stage and even tumor viability, as well as the patient’s treatment response at multiple time points. Advanced 3D and graphical tools help you manage the entire oncology patient cycle from diagnosis to treatment response evaluation.

**Oncology applications in IntelliSpace Portal 9.0:**
- CT Spectral Tumor Tracking (1)
- Multi Modality Tumor Tracking (MMTT) (1)
- Multi Modality Tumor Tracking qEASL (1)
- NM Review
- CT Body Perfusion
- CT Cardiac Viewer
- CT Liver Analysis
- CT Lung Nodule (CAD) (1)
- CT Node Assessment (LNA)
- CT Virtual Colonoscopy
- MR MobiView
- MR Permeability
- MR SpectroView
- MR T1 Perfusion
- US Q-App General Imaging 3D Quantification (GI3DQ)
- US Q-App Region of Interest (ROI)

Cardiovascular

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

**Cardiovascular applications in IntelliSpace Portal 9.0:**
- CT Spectral Comprehensive Cardiac Analysis
- CT Comprehensive Cardiac Analysis (CCA)
- CT TAVI Planning
- MR Cardiac
- MR Cardiac Whole Heart
- NM Corridor 4DM 2016
- CT Calcium Scoring
- CT Cardiac Plaque Assessment
- CT Cardiac Viewing
- CT Dynamic Myocardical Perfusion (DMP)
- CT EP Planning
- CT-MI Fusion
- CT Myocardial Defect Assessment
- NM Astonish Reconstruction
- NM Cedar-Sinai Cardiac Suite 2015 (6)
- NM Emory Cardiac Toolbox (ECTb) v4.1 (5)
- MR Cardiac Functional Analysis
- MR Cardiac Spatial Enhancement
- MR Cardiac Temporal Enhancement
- MR QFlow
- US Q-App Gernal Imaging 3D Quantification (GI3DQ)
- US Q-App Intima Media Thickness (IMT)
- US Q-App MicroVascular Imaging (MVI)
- US Q-App Region of Interest (ROI)
- US Q-App Vascular Plaque Quantification (VPQ)
Multi Modality (MM) – Clinical applications

A single initial viewing platform for all your advanced analysis needs
Multi Modality Viewer is standard with the IntelliSpace Portal, and displays datasets on any client using a LAN, WAN, or broadband connection. With easily configurable hanging protocols, spend more time analyzing and less time opening and arranging your studies. And with newly added DSA processing for XA images, you can use highly effective post-processing tools like pixel shifting and landmarking outside the interventional room.

Reduce comprehensive vascular analysis planning to five minutes
Multi Modality Advanced Vessel Analysis (AVA) delivers user-defined options to reduce comprehensive vascular analysis planning to five minutes. The robust bone removal algorithm on this application provides 3D visualization of the vessels. Additional automatic tools, such as bone removal and centerlines, vessel labeling, and inner and outer lumen contours as well use Automatic Series Creation (ASC) are designed to reduce the time* to produce final results and contribute to consistency. Easily navigate through multiple findings and when you’re finished, export rich, customizable reports to your RIS or PACS without hassle.

*Compared to the Philips EBW v4.x workstation

Streamline workflow for follow-up and analysis of oncology patients
Multi Modality Tumor Tracking (MMTT) lets you use CT, MR, PET/CT, and SPECT/CT data to monitor disease state and assess treatment response. You can also segment lesions and quantify anatomic and metabolic state over time. Enhanced semi-automatic volumetric segmentation has been optimized per modality. Since advanced treatment response criteria support is part of the preset and reflected in a workflow, you can easily review information in different layouts. A quantitative overview of volumetric and functional features is organized for quick navigation. The application now includes Glucose SUV, an option to calculate lesion uptake normalized by patient glucose level, and it provides PET metabolic volume segmentation options based on percentage.

(1) Pending 510(k), not available for sale in the US

Semi-automatic tumor quantification
Multi Modality Tumor Tracking Quantitative EASL (MMTT qEASL) is a quantitative 3D (Volumetric) tumor response assessment tool based on EASL (European Association for the Study of the Liver) criteria. MMTT qEASL is a 3D semi-automated method that incorporates functional information from contrast-enhanced scans. Data are presented as a clear distribution color map of the necrotic and viable areas of the tumor.

(1) Pending 510(k), not available for sale in the US
Visualize data from dual-energy acquisition
CT Dual Energy Viewer provides a set of tools for registration, quantification, and visualization of high-resolution, low-dose, dual-energy image data acquired from the Philips iCT scanner’s sequential dual-energy acquisition. This application allows separation and analysis of materials such as calcium, iodine and uric acid.

Identify salvageable areas in acute stroke
CT Brain Perfusion calculates and displays reduced flow summary maps to help you identify areas of salvageable tissue in acute stroke patients and assist in treatment planning. Map thresholds are now configurable. In addition, the application includes methods to visualize regions with higher collateral supply. The program automatically corrects misregistration or motion artifacts, and displays summary maps that help you distinguish between still-viable and non-viable infarcted tissue. Permeability maps are standard, and optional time-sensitive algorithms are also available. The application now also includes pre-defined ROI templates for a fast and reproducible quantitative evaluation of the ischemic damage.

Fast cardiac analysis
CT Comprehensive Cardiac Analysis (CCA) and advanced 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.

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, which allows for less time used for the TAVI procedure itself performed in the catheterization laboratory or hybrid operating room. New enhancements speed time to results by incorporating vascular entry steps.

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, reducing overall planning time to five minutes compared to 30-45 minutes without the application. The application includes an option that allows you to print results on a customized report.
CT – Clinical applications

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
• rapid vascular assessment
• automatic spine assessment
• interactive pre-surgical MSK
• Multifunctional Findings Navigator to easily create, manage, and convey findings

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.

Track degenerative and metabolic bone disease
CT Bone Mineral Analysis (BMA) provides quantitative CT information to track and manage degenerative and metabolic bone diseases such as osteoporosis. CT BMA provides excellent 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 automatically calculates T-scores and Z-scores and includes tracking support from study to study as well as full color screens and reports.

Track lung disease
CT COPD helps quantifiably track the destructive process of diffuse lung disease (emphysema, asbestosis, black lung) and 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.

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.

Evaluate plaque risk
CT Cardiac Plaque Assessment includes robust capabilities allowing quantification and characterization of coronary plaque from multidetector computed tomography (MDCT) data. With this application, you can assess plaque sites.
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 for review purposes, cine mode for cardiac axes views, and a simple “Area-Length” calculation of end systolic volume (ESV), end diastolic volume (EDV), cardiac output (CO), and ejection fraction (EF) for basic ventricular functional assessment.

Rely on a true second reader

CT Computer Aided Detection acts as a true second reader for multiple applications on the InteliSpace Portal to aid 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.

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.

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 reduce diagnosis response time, shorten procedure length through enhanced surgical planning, and facilitate collaboration between radiologists and surgeons. Images can be rotated and adjusted to find the appropriate location, angle, and depth for surgery. For example, oral and maxillofacial surgeons can locate tooth fragments embedded in the palate of the mouth. Planning with 3D images also helps in estimating the thickness of bone when drilling and inserting metallic dental implants.

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).

Fast planning for EP procedures

CT EP Planning provides fast, overall assessment of pulmonary vein, left atrial, and appendage anatomy, enabling the electrophysiologist to quickly identify anatomy that may complicate the EP procedure.
Advanced liver segmentation
CT Liver Analysis automatically identifies the liver from a portal venous phase of a tri-phase liver scan, complete with automatic portal and hepatic vein segmentation. As a basis for comprehensive analysis and quantification, the liver is segmented semi-automatically using six types of segmentation, including 8-lobe and 9-lobe. The application enables absolute and relative volume measurements as well as virtual hepatectomy for RF ablation and surgery planning.

Assess lung nodules over time
CT Lung Nodule Assessment (LNA) provides quantitative information about the size, shape, and change over time of physician-indicated lung nodules. Take advantage of one-click volume segmentation along with advanced reporting which helps rapidly distribute paper and electronic results while supporting LungRADS® categorization. New intuitive workflow and decision support tools* streamline follow-up readings. Can also be used on low dose CT chest scans.

(1) Not available for sale in the US. * Check for availability in your region

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 ability to derive this information from a single cardiac CTA scan reduces the need for multiple scans. The application itself is based on the robust, automatic, model-based, whole heart segmentation from the CT Comprehensive Cardiac Analysis application.

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.

Reduce reading times in virtual colonoscopy
Exclusive to Philips, CT Virtual Colonoscopy with Perspective Filet View allows you to perform a “virtual dissection” of the colon by unfolding or unrolling along the centerline and displaying a portion of the colon for inspection, providing a 100% view of the surface of the colon with no image manipulation.
Philips IntelliSpace Portal Spectral Diagnostic suite of 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, anywhere in your enterprise. The tools help you gain a comprehensive overview of each patient, quantify quickly, and diagnose with confidence.

CT Spectral applications*
Spectral results anytime, anywhere, enterprise-wide

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 easily 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.
Core CT spectral features

**keV slider**
- Easily navigate the different energy levels
- Save selected energies for later reference
- Toggle the energies at predefined speed
- Available for all applications

**Fusion**
- Advanced fusion capabilities to enable viewing spectral results such as iodine map on top of the conventional data

**Spectral plots**
- Use the various types of spectral plots to enhance the spectral analysis
- Use the attenuation curves to differentiate different types of lesions

**Viewing presets**
- Factory-defined viewing presets
- User-defined viewing presets to achieve effective spectral workflow
Spectral applications

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 based on spectral data.

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 Tumor Tracking
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 analysis based on spectral data.

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
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 Magic Glass

CT Spectral Magic Glass on PACS*
IQon Spectral CT is the only scanner to offer CT Spectral 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 within seconds, 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 9.0
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 changes in the brain by subtracting scans taken at different time points
Pending 510(k), not available for sale in the US

Fast, accurate and proven automated brain image analysis solutions
MR NeuroQuant 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.

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.

Detailed quantification of cardiac function
MR Cardiac facilitates easy visual scoring in various examination contexts. The package enables comprehensive functional volumetric analysis for the ventricles, such as without papillary muscle corrections and segmentations for generation of global functional parameters such as wall motion, 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.

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.

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.
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.

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.

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.

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.

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.

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.
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.

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.

Visualizing and quantifying blood flow dynamics

MR QFlow enables review 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 quickly analyze vessel flow. Background correction allows for offset correction required for q-flow data of certain MR vendors.

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.

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.

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 sensitivity, 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.
SPECT and PET cardiovascular quantification, review, and reporting

NM Corridor4DM® 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. The most recent enhancements to include:

- CFR enhancements
- DICOM Encapsulated PDF Viewer
- DICOM Waveform and 12-lead Viewer
- Enhancements to LV Surface Generator Algorithm

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

Enterprise-wide MI review

NM Review provides a powerful yet simple-to-use 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:

- Quick 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

Advanced cardiac quantification

Developed at Cedars-Sinai Medical Center in Los Angeles, California, NM Cedars Sinai Cardiac Suite 2015® 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. New enhancements:

- RV quantification: Automated RV contouring, quantification and analysis
- Perfusion polarmap defect editor: users can manually edit polar map
- New 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.

Cardiac analysis

The NM Emory Cardiac Toolbox (ECTb) v4.1® 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.
**Evaluate fused coronary anatomy**

NM Emory Cardiac Toolbox (ECTb) HeartFusion® 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.

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

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**Assess cardiac mechanic dyssynchrony**

NM Emory Cardiac Toolbox (ECTb) SyncTool® 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.

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

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**Enhance SPECT resolution and reduce scan times**

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 with 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.

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**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® developers’ kit is available for development of applications.

IDL is a registered trademark of Exelis Visual Information Solutions. Developer training required.
Aiding in the differential diagnosis of dementia

**NM NeuroQ® 3.7** provides automated analysis and quantification of FDG uptake in multiple brain regions to allow monitoring of disease progression. It automatically identifies and compares regional brain activity in an individual scan to activity values derived from a group of asymptomatic control subjects. NM NeuroQ with the EQuAL option provides a non-invasive way to determine, in advance of TLE surgery, the likelihood that a patient will become seizure-free after surgery.

- New NeuroQ brain SPECT analysis option (HMPAO normal database)

**NeuroQ is a trademark of Syntermed.**

Assessing Amyloid plaque

The **NM NeuroQ® Amyloid** application provides a powerful tool to assess amyloid uptake levels in various brain regions. The software automatically calculates the ratio of uptake in cortex to uptake in cerebellum and displays the regions used in the determination of the uptake in cortex and cerebellum.

**NeuroQ is a trademark of Syntermed.**

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.
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. Multi Modality Viewing on IntelliSpace Portal 9.0 supports additional Q-App tools for advanced quantification of ultrasound data.

Explore new tissue stiffness measurements

US Q-App Elastography Quantification (EQ) 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

Explore new tissue stiffness measurements

US Q-App Elastography Analysis (EA) 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

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.

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.
**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 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

**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
In radiology, time is critical but patients requiring advanced visualization can be among the most complex. This makes efficient, streamlined working all the more important, from imaging, to sharing results, to reporting. A recognized leader in this field, IntelliSpace Portal 9.0 is designed to incorporate studies from virtually any modality on a single platform to provide a comprehensive patient view. It also helps improve analysis consistency across all primary modalities used within the facility. Philips offers broad multi-vendor coverage to connect to and process images from virtually any scanner 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 new machine learning feature, IntelliSpace Portal 9.0 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 needs with no user configuration required. Combined with easily configurable hanging protocols, the portal optimizes to fit your specific needs.
Get results fast

Accelerate time from image acquisition to diagnosis with time-saving features such as enhanced zero-click segmentation, image preprocessing, fetching of priors, and guided workflows – to name just a few. And thanks to WADO-RS, IntelliSpace Portal 9.0 helps you get images fast.

Information in the right place
Communicate with referring physicians easily and in the way you choose. In just minutes, 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 and efficiency 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 9.0 makes it possible with proven open interfaces for connecting with Philips PACS and PACS systems* from other vendors.

* Requires integration work with your PACS vendor
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 applications, clinical support, tailored workflow consulting, and more to help assure 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.
A proven performer
The IntelliSpace Portal is continually ranked #1 in KLAS for the “Top 20 Best in KLAS” Awards: Software & Professional Services for Advanced Visualization.

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.

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.

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
- 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.

One step closer to treatment
Bring advanced diagnostic imaging closer to the interventional suite by integrating your Philips Allura Interventional Suite with IntelliSpace Portal 9.0. This unique interventional X-ray integration streamlines the interventionalist’s workflow by automatically retrieving patient data on IntelliSpace Portal 9.0. As a result, interventionalists can review advanced diagnostic imaging and previous analyses directly in the interventional suite before beginning treatment. What’s more, new XA vascular processing - DSA (in MMV) capabilities allow interventionalists to manipulate images as needed.
Experience the benefits of addressing all your clinical needs on a single workstation. Contact your Philips representative to find out more.