

REQUESTING SERVICE: LOGISTICS
SHIP TO: WAREHOUSE B81
V.A. Medical Center
VA MEDICAL CENTER
77 WAINWRIGHT DRIVE
WALLA WALLA, WA 99362
REQUISITION: 687-B80525

Line #	Description	Qty
1	Ingenuity Elite Configuration	1

Welcome to the benefits of 128-slice scanning, improved spatial resolution and excellent advanced clinical capabilities. The kind of scanning that offers low dose while maintaining high image quality. Fast, any way you look at it, with speed of reconstruction, as well as speed of collaboration with the IntelliSpace Portal option. It also offers in-room upgradability to Ingenuity Elite with IMR so its capabilities can grow as your needs grow.

Philips Ingenuity Elite offers 4 cm coverage for excellent image quality and includes the iDose4 Premium Package, our iterative reconstruction technique, as well as iPatient: an advanced platform that delivers focused innovations to facilitate patient-centered imaging, now and in the future. With a focus on clinical integration and collaboration, patient focus, and improved economic value, the scanner provides high image quality at low dose with up to 57% improvement in spatial resolution. Now you can personalize image quality based on your patients' needs at low dose. And with Ingenuity Elite with iDose4, reconstruction is achieved in 60 seconds or less.

One of the innovations of the Ingenuity family is Ingenuity Data Acquisition and Sampling (DAS), which provides high-resolution, thin reconstructions. DAS is excellent for neuro, cardiac, spine, and abdominal CTA scanning, and has a 33% improvement in z-axis spatial visualization.

Ingenuity Elite Key Features

- iDose4 Premium Package
- NanoPanel Elite Detector
- iPatient
- 4 cm of coverage for better patient compliance
- kV stations of 80, 100, 120, 140 kVp
- MRC Ice X-Ray Tube
- 80kW Generator
- Ingenuity DAS
- Upgradability

Intelligent Technologies

The Ingenuity family is built on the best in Philips class intelligent technologies for the speed, accuracy, and reliability to enhance your workflow on a daily basis.

Dual Energy

The Ingenuity family of scanners will allow acquisition and reconstruction of sequential dual-energy scans. The Spectral Analysis application is available with an optional IntelliSpace Portal. The Spectral Analysis application allows separation and analysis of materials such as calcium, iodine and uric acid when used with dual-energy scan data.

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This Dual Energy scan acquisition may be better suited for studies that are not prone to motion between the sequential scans

Lung Cancer Screening

The system enables Low Dose CT Lung Cancer Screening Exam Cards that are compliant with ACR and CMS guidelines for LDCT LCS. These patient-specific low-dose CT lung cancer screening protocols leverage the advanced scanner capabilities such as iDose4, can increase early detection in high-risk patients and help prevent a substantial number of lung cancer related deaths*.

*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.

iPatient

Philips' iPatient is an advanced platform that delivers focused innovations to facilitate patient-centered imaging, now and in the future. This powerful Windows® 7-based platform will put our customers in control of innovative solutions that drive confidence and consistency through personalized patient centric workflow, increase the ability to do complex and advance procedures with ease and efficiency. iPatient removes unnecessary complexity and allows our customers to get the job done while driving confidence and consistency 24/7, and prepares for future innovations that will help improve the care being delivered to the patient.

ExamCards

ExamCards are the evolution of the scanning protocol. With ExamCards, the results are planned, not the acquisition as traditionally done in CT; this reduces decision points and clicks, saves time and improves operator-to-operator consistency. ExamCards can include axials, coronals, sagittals, MPRs, MIPS, and other results, all of which will be automatically reconstructed and can be sent off to where they will be read with no additional work required by the operator.

MRC Ice X-ray Tube

Liquid coolant carries heat away from the MRC Ice X-ray tube, so Ingenuity Elite is ready for the most demanding scans, one right after the other. The Philips MRC Ice X-ray tube is designed to be one of the most reliable in the industry. Built for high volume and 24-hour consistency, there is no waiting for the tube to warm up before the scan and no waiting for it to cool down.

NanoPanel Elite Detector

The NanoPanel Elite, the second generation of tile detector technology from Philips, was engineered for low-dose, low-energy and low-noise imaging. The detector provides marked image noise improvement, direct integration technology, and linearity improvements at low energy and low current. Philips was first to bring the NanoPanel tile detector design in 2007.

Generator

The Ingenuity generator uses low-voltage slip ring technology to provide a constant high voltage to the CT x-ray tube assembly.

Scan Times

0.5, 0.75, 1, 1.5, 2 seconds for full 360° scans

Reconstruction

iDose4 Premium Package

The iDose4 Premium Package includes two leading technologies that can improve image quality – the iDose4 iterative reconstruction technique and metal artifact reduction for large orthopedic

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implants (O-MAR). iDose4 is a 4th-generation advanced iterative reconstruction technique that improves image quality* through artifact prevention and increased spatial resolution at low dose. O-MAR reduces artifacts caused by large orthopedic implants. Together they produce high image quality with reduced artifacts.

With the iDose4 Premium Package, reconstruction is achieved in seconds rather than minutes. This is due to the innovative RapidView IR reconstruction engine. Designed to support iDose4, this proprietary technology allows for this iterative reconstruction technique to be used routinely in inpatient, outpatient, and emergency-care settings. The design seamlessly integrates into your CT department, and provides you the look and feel of conventional, higher-dose images without long processing times.

ClearRay Reconstruction

A revolutionary solution to beam hardening and scatter artifact, modeling and simulation technology pre-computes and stores beam hardening and scatter corrections in a database that is later referenced to create a correction that is personalized to each individual patient. As a fully three-dimensional technique, contrast scale stability is preserved across different patient sizes, image uniformity is improved, and organ boundaries are better visualized.

Evolving Reconstruction

Provides real-time 256 x 256 matrix image reconstruction and display in step with spiral acquisition. Images can be modified for window width and level, zoom and pan prior to reconstruction. At the end of the acquisition, all images are updated with the desired viewing settings.

Adaptive filtering

Adaptive filters reduce pattern noise (streaks) in nonhomogenous bodies, improving overall image quality.

HyperSight IR Reconstruction

HyperSight IR reconstruction is the result of years of advanced research, and was designed specifically to satisfy the performance requirements and processing power needed to seamlessly integrate the iDose4 Premium Package and iPatient into your department. HyperSight IR provides dramatic improvements in workflow by displaying images at breakthrough rates, regardless of acquisition speed or reconstruction parameter. The majority of factory protocols with iDose4 are reconstructed in less than a minute, with reconstruction speeds up to 18 images per second with iDose4 and up to 25 image per second with standard reconstruction.

ConeBeam Reconstruction Algorithm - COBRA

Philips patented Cone Beam Reconstruction Algorithm (COBRA) enables true three-dimensional data acquisition and reconstruction in spiral scanning.

Ultra High Resolution Matrix Sizes

Exclusive to Philips, 768 x 768 and 1024 x 1024 image reconstruction matrix sizes display all of the high-resolution data acquired in applications, such as inner ear, spine and high-resolution lung imaging. As scan resolution increases, larger reconstruction matrix sizes are required maintain the full scan resolution for the reconstructed field of view.

Dose Management

Philips' DoseWise philosophy is a set of principles and practices that ensures the best possible outcomes with minimal risk to patients and staff. The Ingenuity platform employs a number of features that help provide high dose efficiency.

NEMA XR-29 Compliance

This system complies with the NEMA XR-29-2013 Standard Attributes on CT Equipment Related to Dose Optimization and Management. The standard includes a group of CT attributes that contribute to or help perform optimization/management of doses of ionizing radiation while still

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	<p>enabling the system to deliver the diagnostic image quality needed by the physician. It encompasses: DICOM Radiation Dose Structured Reporting, Dose Check Feature (Dose Notification and Dose Alerts), Automatic Exposure Control (Dose Modulation) and Reference Adult & Pediatric Protocols.</p> <p><i>NEMA XR-25 (DoseCheck)</i></p> <p>DoseCheck enables the ability to set dose thresholds and provides alerts and notifications to the scan operator when radiation dose levels will be exceeded.</p> <p>There are two threshold level values: Notification Values, Alert Values</p> <p>Notification values apply to a single image series, and Alert values apply to an overall exam. Both CTDIvol and Dose Length Product (DLP) values can be set.</p> <p>For Alert values that will be exceeded, the system requires the user provide name and password information before proceeding to scan. Also, an additional indication will appear in the Dose Info Page Series when the Notification or Alert values have been exceeded during a scan.</p> <p><i>DICOM Structured Report for Dose (DICOM SR)</i></p> <p>Dose SR complies with the IEC, DICOM PS and IHE standards for dose reporting. The report includes CTDIvol and DLP dose values.</p> <p><i>Dedicated Pediatric Protocols</i></p> <p>Developed in collaboration with top children's hospitals, age and weight-based infant and pediatric protocols enhance image quality at low dose.</p> <p><i>DoseRight ACS (Automatic Current Selection)</i></p> <p>Personalizes the dose for each patient based on the planned scan by suggesting the lowest mAs settings to maintain consistent image quality at low dose throughout the scan.</p> <p><i>DoseRight Angular Dose Modulation</i></p> <p>Automatically controls the tube current angularly, increasing the signal over areas of higher attenuation (e.g., lateral) and decreasing signal over areas of less attenuation (e.g., anteroposterior).</p> <p><i>DoseRight Z-DOM (Longitudinal Dose Modulation)</i></p> <p>Automatically controls the tube current, adjusting the signal along the length of the scan, increasing the signal over regions of higher attenuation (e.g., shoulders, pelvis), and decreasing the signal over regions of less attenuation (e.g., neck, legs).</p> <p><i>Dose Displays</i></p> <ul style="list-style-type: none"> - Volume Computed Tomography Dose Index (CTDIvol) - Dose-Length Product (DLP) - Dose Efficiency <p>Scan and Image Acquisition</p> <p><i>Scan Ruler</i></p> <p>Provides a visual, highly interactive view of the entire procedure that allows 1-click updates to important study events.</p> <p><i>Spiral Scanning</i></p> <p>Multiple contiguous slices acquired simultaneously with continuous table movement during scans allowing for multiple, bidirectional acquisitions</p>	

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	<p><i>Axial Scanning</i> Multiple-slice scan with incremental table movement between scans.</p> <p><i>Ingenuity DAS</i> One of the innovations of the Ingenuity family is Ingenuity Data Acquisition and Sampling (DAS), which provides high-resolution, thin reconstructions.</p> <p><i>Test Injection Bolus Timing</i> Establishes the optimum contrast injection delay time using a test injection. A real-time graph of the enhancement in a selected region of interest is displayed. The delay time is then selected to provide optimal peak contrast enhancement and reduced contrast usage.</p> <p><i>Bolus Tracking</i> An automated injection planning technique that permits a user to monitor actual contrast enhancement and to initiate scanning at a pre-determined enhancement level. Combine with SAS for full automation.</p> <p><i>Spiral Auto Start</i> Spiral Auto Start allows the injector to communicate with the scanner. This allows the technologist to monitor the contrast injection and to start the scan (with a predetermined delay) while in the scan room.</p> <p>NOTE:</p> <ul style="list-style-type: none"> - Costs to upgrade an approved injector and any cabling is the responsibility of the user. - Compatible with following Injectors: Medrad Envision/Stellant, Medrad Vistron, Liebel-Flarsheim, Tyco CT 9000, Medtron CT 2, Nemoto Dual Shot, Mallinckrodt OptiVantage DH, E-Z-EM Empower, Swiss Medicare, Ulrich Injectors <p>Image Management, Storage, and Filming DICOM 3.0-compliant image format. Lossless image compression/decompression is used during image storage/retrieval to/from all local storage areas. Images can be auto-stored to selected archive media</p> <ul style="list-style-type: none"> • 500 GB Hard Disk • Image Storage Capacity: 512 X 512 Image Matrix = 900,000 typical number of uncompressed images <p><i>DVD-RAM Storage</i> Provides a solution for data storage. DVD-RAM disks are written in a proprietary Philips format and are able to be read only on Philips EBW (v3.0.1 or higher), and CT scanner units (v2.3 or higher) with a DVD-RAM drive.</p> <ul style="list-style-type: none"> • 4.7 GB DVD-RAM • Image Storage Capacity: 512 X 512 Image Matrix = 15,000 typical number of compressed images <p><i>Filming</i> Allows the user to set up and store filming parameters. Pre-stored protocols can be set to include auto-filming. The operator can film immediately after each image, at the end of a series, or after the end of a study, and review images before printing. The operator can also automatically film the study at three different windows and incorporate Combine Images functionality to manage large datasets. Basic monochrome and color DICOM print capability are supported.</p>	

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	<p><i>Networking</i></p> <p>Network connections should be located within 10 feet of the console. Supports 10/100/1000 Mbps (10/100/1000 BaseT) networks. For optimal performance, Philips recommends a minimum 100 Mbps network (1 Gbps preferred) and for the CT network to be segmented from the rest of the hospital network.</p> <p><i>DICOM Connectivity</i></p> <p>Full implementation of the DICOM 3.0 communications protocol allows connectivity to DICOM 3.0 compliant scanners, workstations, and printers; supports IHE requirements for DICOM Connectivity. Further details on connectivity and interoperability are provided within the DICOM Conformance statement.</p> <p>Operator Console, Patient Handling, and Setup</p> <p>Philips provides an operator work environment that is both flexible and easy to use. The operators' console includes the necessary hardware to use the scanner including host computer, cabinets, dual monitor configuration, and control box. The system provides applications that assist clinicians to improve workflow and planning as well as post processing analysis and review to help you quickly gain the desired view. All of these combine in a graphical interface that allows you to easily execute scans and analyze images.</p> <p><i>Manual Scan</i></p> <p>Places slice-by-slice scans under operator control with on-line or off-line reconstruction, background image archiving to local or remote storage devices. At any time, the operator is able to switch from automatic to manual scan and back.</p> <p><i>Automatic Scan</i></p> <p>Enables automatic execution of pre-planned studies, with concurrent, on-line or off-line reconstruction, background image archiving to local or remote storage devices, without operator intervention</p> <p><i>Gantry Control Panels</i></p> <p>Gantry Control Panels for gantry tilt, patient couch elevation and stroke are located at the operator's console as well as on front and back and left and right sides of the gantry. Additional functions at the operator's console include emergency stop, intercom and scan enable/pause buttons.</p> <p><i>Gantry Aperture:</i> 700 mm diameter</p> <p><i>Gantry Tilt:</i> -30° to +30°; 0.5° increments.</p> <p><i>Infant Calibration Phantom</i></p> <p>The Infant Calibration Phantom is a Philips-exclusive tool used to calibrate system parameters to optimize the system for scanning infants.</p> <p><i>Patient Centering on Surview</i></p> <p>Centering the patient properly is one of the most important factors in getting good image quality. Traditionally, patients are centered using the gantry laser lights; with this feature it is possible to improve patient centering using the lateral surview with real time feedback.</p> <p><i>Intercom System and Multilingual Autovoice</i></p> <p>The intercom system provides two-way communication between the scan room and the operator console. Additionally, a standard set of commands for patient communication before, during and after scanning is available in several pre-selected languages. Customized messages can also be created. Pre-selected languages available include:</p> <p>-English, Hebrew, German, French, Arabic, Danish, Spanish, Russian, Swedish, Italian, Georgian, Chinese, Japanese, Turkish and Portuguese.</p>	

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Dual Surview Planning

Provides flexibility in exam planning with both anteroposterior and lateral survIEWS.

Automatic Procedure Selection

Maps the procedure selection from the HIS-RIS with individual scan protocol(s) simplifying the scanning process. Only the most relevant scan protocol(s) for any requested procedure are shown to the user, ensuring that only the desired scanning procedures are performed. This is especially useful for infrequent users of the CT scanner.

Table Accessories

Prevent fatigue and discomfort and give both patients and technologists a sense of security: patient restraint kit, table extension, standard head holder, table pad, IV Pole, arm rests, cushions, and pads.

Also Includes

- *Expert Protocol Planning*
- *Preset Post-Processing*
- *DICOM Modality Worklist*
- *Prefetch Study*
- *Split Study*

Applications

Organ ID

Automatically isolates lung images for better viewing, including lung limit detection, zoom and pan setting, lung windowing, image enhancement, and image filming.

Volume Rendering

Provides simultaneous visualization of vasculature, soft tissue, and bone. Offers real-time, interactive control of opacity and transparency to permit viewing through and beyond surrounding structures, such as metallic stents and arterial calcifications, and virtually eliminates the need for organ segmentation prior to visualization.

Q-CTA - Quantitative CT Measurement Tool Package

Q-CTA is a tool kit for quantitative measurements of anatomic structures, such as vasculature pathology from 2-D, 3-D or volume-rendered images.

Also includes:

- *Survival Plan*
- *Guided Flow*

ScanTools and ScanTools Pro

The ScanTools package of advanced components and productivity features streamlines routine imaging studies, and comes standard with your scanner. ScanTools Pro is a supplemental set of tools standard on your scanner that enhances productivity, workflow, and diagnostic confidence. The components of ScanTools and ScanTools Pro are located throughout the quote under the appropriate headings.

Siting information

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Power Requirements

- 200/208/240/380/400/460/415/480/500 VAC at 112.5 kVA (150 kVa preferred) and 50/60Hz
- Three-phase distribution source

Note: Windows is a registered trademark of Microsoft Corporation in the United States and other countries.

Enhanced System Warranty Coverage:

The Philips Ingenuity CT System will get the following enhanced service coverage for a period of twelve (12) months after completion of installation or availability for patient use, whichever occurs first.

- Extended service coverage hours, Monday - Friday, 8am to 9pm
- Flexible Planned Maintenance scheduling from Monday - Friday, 7am to 12am and Saturday, 8am to 5pm
- Onsite labor response of 2 hours*
- Expedited parts delivery on same day*

* Please note that response and delivery times are dependent on local factors and conditions

Clinical Education Program for Ingenuity Systems:

Essentials OffSite Education: Philips will provide up to two (2) lead technologists, as selected by customer, with in-depth lectures covering basic clinical applications, Philips-specific imaging techniques, protocol optimization and scan parameters. A CT "system emulator" is used during the lab sessions to simulate all basic scanning operations without x-ray exposure. Students will graduate from this class with an 80% understanding of the base system functionality. The remaining 20% is covered during the Handover OnSite experience. This twenty-eight (28) hour class is located in Cleveland, Ohio, and is scheduled based on your equipment configuration, geography, and availability. Due to program updates, the number of class hours is subject to change without notice. Customer will be notified of current, total class hours at the time of registration. This class is a prerequisite to your equipment handover OnSite Education, and should be attended no earlier than two weeks prior to system installation. ASRT CEU credits may be available for each participant that meets the Guidelines provided by Philips during the scheduling process. Travel and lodging are not included, but may be purchased through Philips. It is highly recommended that 989801292078 (CT Full Travel Pkg OffSite) is purchased with all OffSite courses.

Handover OnSite Education: This twenty-eight (28) hour training event will fine tune and expand upon knowledge learned during the Essentials OffSite with focus on maximizing scanning techniques and protocols. This session is to be attended by the same two (2) technologists from Essentials OffSite, and up to two (2) more of your dedicated CT Technologists, preferably from night or weekend shifts if necessary. ASRT CEU credits may be available for each participant that meets Philips Guidelines. Note: Site must be patient-ready. Philips personnel are not responsible for actual patient contact or operation of equipment during education sessions except to demonstrate proper equipment operation.

Line #	Description	Qty
	<p>Follow-Up On-Site Education: Clinical Education Specialists will provide twenty-eight (28) hours of follow-up CT On-Site Education for up to four (4) students, selected by customer, including technologists from night/weekend shifts if necessary. CEUs are not available in all cases.</p> <p>Follow-Up OnSite Education: Clinical Education Specialists will provide twenty-four (24) hours of follow-up CT OnSite Education for up to four (4) students, selected by customer, including technologists from night/weekend shifts if necessary. CEUs are not available in all cases. Please read Guidelines for more information, which will be provided to you during the scheduling process. Note: Philips personnel are not responsible for actual patient contact or operation of equipment during education sessions except to demonstrate proper equipment operation. Education expires one (1) year from equipment installation date (or purchase date if sold separately). Ref# 618619620621-20110921</p>	
2	Standard Table	1
	<p><u>Table Specifications:</u></p> <p><i>Longitudinal motion:</i></p> <p>Manual Stroke: 1890 mm Scannable range: 1750 mm Acquisition Speed: 0.5 to 185 mm/sec (iCT) 0.5 to 143 mm/sec (64) 0.5 to 100 mm/sec (Brilliance 16, Big Bore)</p> <p>Load/Unload Speed: 0.5 to 185 mm/sec (iCT, Brilliance 64) Position accuracy: ±0.25 mm</p> <p><i>Vertical motion:</i></p> <p>Range: 578 to 1028 mm; 1.0 mm inc. 645 to 1065mm; 1.0 mm inc. (iCT)</p> <p><i>Table load capacity:</i> 204 kg (450 lbs) <i>Floating tabletop:</i> Carbon-fiber table top with foot pedal and handrail control for easy positioning and quick release.</p>	
3	Operator's Manual - English	1
4	Keyboard Language - English	1
5	Computer Table	1
	Computer Table, for the Brilliance Console or the Extended Brilliance Workspace, provides a large enough working space (120cm) to accommodate dual monitors and other peripheral devices.	
6	IMR Pltnm Option - Ing	1
	IMR sets a new direction in CT image quality with virtually noise*-free images and industry-leading low-contrast resolution. Long associated with MR, this improvement in low-contrast resolution is a breakthrough made possible through Philips' first iterative reconstruction technique built on a knowledge-based model. IMR is the first knowledge-based solution that overcomes motion-sensitivity associated with traditional model-based solutions; allowing it to be used in even the most advanced acquisitions, such as Cardiac CTA. Enabled by next-generation HyperSight IMR hardware and reconstruction algorithm innovation, its reconstruction speed allows IMR Platinum to	

Line #	Description	Qty
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be used in even the most time demanding applications, such as trauma.

Key Benefits:

- Industry-leading low-contrast resolution (2 mm @ 0.3% @ 10.4 mGy)
- Significantly lower dose while simultaneously improving image quality*
- Significantly improved image quality (noise / low-contrast detectability / spatial resolution)
- First knowledge-based iterative reconstruction for gated acquisitions
- Fast reconstruction speed, with majority of reference protocols reconstructed under 3 minutes.
- Integrated design with minimal siting impact

IMR may be used for patients of all ages for a wide range of routine body & neuro clinical applications. Additionally, IMR Platinum may be used for advanced gated applications, such as Cardiac CTA and Pulmonary-gated studies.

Prerequisites:

- iPatient, and
- iDose4 Premium Package, and
- Rate Responsive CV Toolkit, or Pulmonary Toolkit, or Pulmonary Toolkit for Oncology.

* In clinical practice, the use of IMR may reduce CT patient dose depending on the clinical task, patient size, anatomical location, and clinical practice. A consultation with a radiologist and a physicist should be made to determine the appropriate dose to obtain diagnostic image quality for the particular clinical task.

7	Rate Responsive CV Toolkit	1
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The "Rate Responsive CV toolkit" package is a set of features designed to allow basic cardiovascular imaging of the heart. This package is a prerequisite to the cardiac packages and to the "Stand Alone" applications, it includes:

Acquisition Features

0.4 Second Rotation

0.4 second 360° rotation provides better temporal resolution in advanced clinical applications such as coronary artery imaging, cardiac perfusion and other high-speed, motion-free imaging. The higher speed especially benefits prospective gating, with up to a 20% improvement in temporal resolution.

DoseRight Cardiac

ECG Dose Modulation reduces the mA of the X-ray beam up to 80% during acquisition of non-desired phases (estimated overall dose reduction to the patient of ~45% for single-phase, end-diastolic imaging). For example, only one phase may be required for coronary CTA, and the system will reduce the mA during the other portions of the acquisition, saving considerable dose.

Retrospective Tagging

Spiral Retrospective Tagging allows the Brilliance CT system to acquire a volume of data while the patient's ECG is recorded. The acquired data is "tagged" using AccuTag and reconstructed retrospectively at any desired phase of the cardiac cycle. This phase selection is accomplished using the Philips' patented Beat-to-Beat Variable Delay Algorithm, which automatically finds the best phase for cardiac CT imaging.

Prospective Gating

Prospective Gating automatically triggers axial multislice scan acquisitions using patient information from the ECG monitor. This feature uses Philips patented Beat-to-Beat variable delay algorithm for accurate and reproducible calcification scoring studies.

Integrated ECG Monitor

Line #	Description	Qty
	<p>Philips' advanced ECG monitor with accompanying stand is used to collect the patient's ECG signal and then transfer the signal to the scanner for gated cardiac CT imaging. The ECG signal is stored on the system for later recall and display in the Brilliance Workspace. This can be used to interactively complete raw data reconstructions at different portions of the ECG cycle. Also can be used to correct reconstruction artifacts caused by irregular heartbeats.</p> <p>Note: Gemini systems will ship with the GEMINI PET/CT ECG Gate.</p> <p><i>Reconstruction Features</i></p> <p>COBRA Reconstruction (COBRA Cardiac)</p> <p>This reconstruction algorithm along with the adaptive multi-cycle reconstruction algorithm (MaxCycle) delivers the clearest images with the best temporal resolution possible at all times, as low as 53mseconds, in full 3-D conebeam resolution.</p> <p><i>Review Features</i></p> <p>Cardiac Viewer</p> <p>Provides a comprehensive set of user 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.</p> <p>Calcium Scoring</p> <p>Cardiac scoring program which provides Agatston, Volume and Mass scores. Incorporates a database of > 5,000 asymptomatic multislice cardiac scoring patients.</p> <p><i>Reporting Features</i></p> <p>CT Reporting</p> <p>Provides reporting capabilities for paper print of clinical results from the Philips Brilliance Workspace including display of key images and results frames. The report is available for paper or electronic distribution to referring physicians, patients, or for medical records. Each report is editable and new default templates can be easily created and included in the system configuration. The report can be saved as a PDF file for digital transfer or printed.</p>	
8	<p>CT Interventional - Cart</p> <p>The CT Interventional – Cart includes both CT Fluoroscopy and Continuous CT (CCT) applications utilizing a cart-mounted monitor.</p> <p>Philips' CT Fluoroscopy application provides real-time guidance for interventional procedures (up to 8fps). The user can view one fused image while time and dose displays keep the interventional radiologist aware of exposure levels throughout the procedure. In addition to the real-time mode, Continuous CT (CCT) biopsy mode enables the clinician to perform gantry room scans using a foot pedal and includes a remote monitor for viewing. Each exposure is a 240° axial centered beneath the patient to shield the clinician's hands from direct X-ray exposure. Exposures are single and series (continuous) selectable via foot switch.</p> <p>View four, two or one image(s) per exposure</p> <p>Time to first image is <1.5 seconds from exposure start</p> <p>This option also includes the Philips interventional couch control which improves operational efficiency during CT-guided interventional procedures through table side control of longitudinal movements for patient positioning.</p> <p><i>Note: For Germany, the included cart-mounted monitor is compliant with the DIN6868-157 standard specifications.</i></p>	1

Line #	Description	Qty
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Prerequisite: For installed base upgrades, Dell T7400 or newer host PC with DVI-based video connector.

9	Load and Unload Foot Pedals	1
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Load and Unload foot pedals allow the operator to move the patient couch to the load or unload position using a foot pedal thus improving patient handling efficiency by the freeing the operator's hands to prepare, restrain, or release the patient.

Prerequisite: Rear Gantry Panel for Field Upgrades

10	30 Min Console UPS	1
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Uninterruptible Power Supply (UPS) provides up to 30 minutes of battery backup for computer/reconstruction system.

11	Teal 100kVA Isotran Plus	1
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Teal 100 kVA isolation voltage adapting transformer:

Input voltage: 200/208/240/380/400/416/480/500, 3-phase, delta plus protective earth. 50/60 Hz

Output voltage: 480 VAC (277 VAC wye).

Includes: Programmable input circuit breaker.

Includes: TVSS (Transient Voltage Surge Suppression), load side filtration for noise attenuation and remote control contactor.

Weight: 598 lbs. (271 kg)

Dimensions: 27.8" (70.7 cm) wide, 20.5" (52.1 cm) deep, 44.0" (111.8 cm) high.

12	24 Hours of Additional OnSite Clinical Training	2
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Clinical Education Specialist will provide twenty-four (24) hours of tailored CT OnSite Education for up to four (4) students, selected by customer, including technologists from night/weekend shifts if necessary. CEUs are not available in all cases. Please read Guidelines for more information, which will be provided to you during the scheduling process. Note: Philips personnel are not responsible for actual patient contact or operation of equipment during education sessions except to demonstrate proper equipment operation. Education expires one (1) year from the earlier of equipment delivery date or purchase date.

13	Bayer PACS Outbound Interface	1
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Bayer Healthcare PACS Outbound Interface:

Bayer Catalog Items:

- 84220396 PACS Outbound Interface, Tier 1

- 84219584 Installation and Implementation Services

14	Bayer Stellant DH/DF CT Inj w/CW-Med OCS	1
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Line #	Description	Qty
	Bayer Healthcare Stellant Dual Head/Dual Flow CT Injector w/ Certegra Workstation - Medium OCS:	
	Bayer Catalog # SCT322PH:	
	<ul style="list-style-type: none"> - 3032458 Stellant Dual Head Injector with Console Display, informatics ready. - 3016426 Medium OCS (850mm) - 3012559 Dual Flow - 3016436 Ceiling Plate - 3010435 ISI-700 Interface - INST SCT Installation 	
	The Stellant Dual Head/Dual Flow CT Injection System is comprised of the injector head located in the screening room and a Console Display Station is typically located in the control room. The two components are connected by a communication link.	
	Control console system with Dual 200 ml variable speed injector head with automatic docking, Auto Advance and Auto retract. Includes touch screen display input, 75 ft. cable to control console, injector head overhead mount, operation manual and two 200 ml syringe kits.	
	Philips representatives are responsible for the unpacking, assembly and installation of the CT Injector equipment. Bayer will be available for technical assistance, by phone: call (412) 767-2400. Bayer will also provide an operational checkout, final calibration, in-service of the equipment and initial applications training. Please contact the local Bayer sales office at least two weeks in advance to schedule installation. Call (412) 767-2400.	
	Philips does not warranty the Bayer Stellant CT Injector System but will pass on the Bayer warranty. Bayer warrants each new injector system; including control unit, display control, remote panel and injector head sold in North America and Europe against defects in material and workmanship, under proper, normal use and service for a period of one year (12 months) from the date of installation. There will be no charge for any action deemed necessary by Bayer, including parts, travel, or labor to fulfill the terms of the warranty, during normal business hours (8:30am to 5:00pm, local time, Monday through Friday, except holidays).	
15	IMR Education Entitlement	1
	iMR Upgrade Education:	
	Initial Handover Training:	
	Philips Clinical Education Specialist will provide twenty-four (24) hours of CT IMR and/or Advanced CT OnSite Education for up to four (4) students, selected by customer, including technologists from night/weekend shifts if necessary. CEUs are not available in all cases. Please read Training Guidelines for more information, which will be provided to you during the scheduling process. Note: Philips personnel are not responsible for actual patient contact or operation of equipment during education sessions except to demonstrate proper equipment operation.	
	Follow Up OnSite Training:	

Line #	Description	Qty
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Clinical Education Specialist will provide twenty-four (24) hours of additional training on IMR and/or Advanced CT OnSite for up to four (4) students, as selected by customer, including technologists from night/weekend shifts if necessary. CEUs are not available in all cases. Please read Training Guidelines for more information, which will be provided to you during the scheduling process. Note: Philips personnel are not responsible for actual patient contact or operation of equipment during education sessions except to demonstrate proper equipment operation.

Education expires one (1) year from equipment installation date (or purchase date if sold separately). Ref #296030296032-20131213

OPTIONS

Line #	Part #	Description	Qty
1		CT3031 Essentials Brilliance/Ingenuity	1

Course Number: CT3031

Course Title: CT Essentials Ingenuity-Brilliance

Course Length/Location: 8 days Instruction Lead at Cleveland Training Center

DESCRIPTION:

This course provides the engineer with the material required for an FSE to safely work on the Ingenuity / Brilliance Family of CT scanners. The CT Essentials course will be a prerequisite to the Ingenuity / Brilliance Intermediate Course.

This course prepares the FSE to service the Ingenuity / Brilliance CT Family systems by providing the knowledge and the skills required to safely install, calibrate and repair the systems to the designated Field Replaceable Units.

In addition, the FSE learns the version 4.x "iPatient" system operation, software installation, configuration and calibration processes as well as the interfaces and access methods for Service Tools.

A standard of 2 students per machine per lab will be assumed, with a maximum of 3 as required.

PREREQUISITES:

All of the courses listed below are included in the purchase of course CT3031

- FC9001- Business Essentials (elearn)
- FC9002 – Safety
- FC9003 – Imaging Systems Safety
- FC9008 – DICOM
- FC9017 – Basic Networking
- FC9018 – Advanced Networking
- FC9055 – Service Tools
- CT9009 – Laser Safety

COURSE OBJECTIVES:

Upon successful completion of the course the learner will be able to:

- System Access
- Describe key components related to the power distribution system
- Demonstrate working safely in and around the ingenuity and Brilliance CT systems
- Demonstrate removal, replacement and alignment of the system covers
- Operations
- Demonstrate perform key system operations
- Demonstrate an ability to remove or replace components related to the Operator's Interface
- Power Distribution
- Follow Installation instructions to connect the power distribution components of the system
- Follow the prescribed safety methods to avoid electrical and ESD hazards pertaining to power distribution
- Physically identify Field Replaceable Unit components of the power distribution and follow the procedures to remove and replace them
- Software
 - Identify and describe the Common Processor Modules
 - Describe the basic Gantry Software functions
 - Demonstrate an ability to program the Common Processor Modules to comply with the system's software version
 - Demonstrate Baseboard programming

OPTIONS

Line #	Description	Qty
	<ul style="list-style-type: none"> • Describe the relationship of the Gantry States • Communications <ul style="list-style-type: none"> - Describe the methods of communication - Demonstrate the procedures to remove, replace and align the Field Replaceable Units related to communications • Service Tools <ul style="list-style-type: none"> - Demonstrate accessing and navigating the Philips Service Tools - Describe the Actionable Tool Panel • DMS (Data Measurement System) <ul style="list-style-type: none"> - Physically identify Field Replaceable Unit components related to the Data Measurement System and follow the procedures to replace them • High Voltage : <ul style="list-style-type: none"> - Demonstrate the ability to identify the major High Voltage components. - Demonstrate the ability to replace major components of the High Voltage system. - Describe the functions of the major components of the High Voltage system. - Describe the power distribution to the High Voltage system including the soft start process. • Rotor Motion <ul style="list-style-type: none"> - Physically identify Field Replaceable Unit components related to rotor motion and follow the procedures to remove, replace and align them - Physically identify Field Replaceable Unit components related to tilt motion and follow the procedures to remove, replace and align them • Beam Path <ul style="list-style-type: none"> - Identify a collimator-related failure to the lowest Field Replaceable Unit using a time effective method - Physically identify Field Replaceable Unit components of the beam path and follow the procedures to remove, replace and align them - Perform calibrations related to the collimator to ensure accurate CT image quality • Image Quality <ul style="list-style-type: none"> - Perform Image Calibration on the scanner - Perform the constancy tests - Perform acceptance testing 	

* PHILIPS PROPRIETARY MATERIALS SUCH AS DIAGNOSTIC SOFTWARE AND SERVICE DOCUMENTATION ARE NOT INCLUDED IN THE TRAINING AND WILL NOT BE AVAILABLE FOR USE OUTSIDE OF THE TRAINING ENVIRONMENT. THE TRAINEE MUST RETURN ALL PROPRIETARY MATERIALS RECEIVED DURING THE TRAINING AT THE END OF THE TRAINING. CUSTOMER ACKNOWLEDGES AND AGREES THAT NEITHER CUSTOMER NOR TRAINEE WILL RECEIVE A LICENSE TO SUCH PROPRIETARY MATERIALS AND THAT THE TRAINEE MAY NOT BE ABLE TO FULLY UTILIZE THE TRAINING WITHOUT THE USE OF SUCH PROPRIETARY MATERIALS. (CERTAIN LICENSES MAY BE OBTAINED THROUGH PURCHASE OF SUPPORT OR ASSIST AGREEMENT.) Course dates and location to be finalized by Philips. Philips shall attempt to accommodate Customer requested dates and training location. The price quoted includes course tuition. Travel and living expenses are not included, but may be purchased separately through Philips.

IMPORTANT Notes Regarding Admission to Philips Customer Engineer Training Courses:

OPTIONS

Line #	Part #	Description	Qty
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1. Trainee must meet all prerequisites
2. Course expires one (1) year from equipment installation date (or purchase date if sold separately)
3. Customer must sign Philips Nondisclosure statement
4. Trainee must sign Philips Nondisclosure statement
5. Customer must sign Philips terms and conditions of training

2	CT Essentials Common 2 days	1
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Course Number: CT3030
 Course Title: CT Essentials Common
 CSIP Level: All course materials are on CSIP level 1
 Course Length: 2 days; 16 hours
 Delivery Method(s): ILT
 Modality: CT
 System Code(s): All iCT, All Ingenuity, All Brilliance (Air), including Big Bore:

728231 – Brilliance 64 w/Essence Technology
 728235 – Brilliance 40
 728243 – Brilliance Big Bore – Oncology
 728244 – Brilliance Big Bore – Radiology
 728246 – Brilliance 16 Air
 728256 – Brilliance 6 Air
 728317 – Ingenuity Flex
 728321 – Ingenuity Core
 728326 – Ingenuity Core 128
 728323 - Ingenuity CT

DESCRIPTION:

This course provides the engineer with the material required for an FSE to safely work on the common components of the Ingenuity-Brilliance & iCT Family of CT scanners. The CT Essentials Common course will be a prerequisite to the CT Intermediate Common Course.

This course prepares the FSE to service the common components of the Ingenuity-Brilliance and iCT Family systems by providing the knowledge and the skills required to safely install, calibrate and repair the systems to the designated Field Replaceable Units.

A standard of 2 students per machine per lab will be assumed, with a maximum of 3 as required.

PREREQUISITES:

All of the courses listed:

- FC9001- Business Essentials
- FC9002 – Safety
- FC9003 – Imaging Systems Safety
- FC9008 -- DICOM
- FC9017 –
- FC9018 –
- FC9055 – Service Tools
- CT9009 – Laser Safety

COURSE OBJECTIVES:

Upon successful completion of the course the learner will be able to:

- CIRS

OPTIONS

Line #	Part #	Description	Qty
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- Discuss the reconstruction process
- Identify the CIRS Hardware components
- Demonstrate an ability to remove and replace components of the CIRS
- Demonstrate the ability to execute CIRS related diagnostics
- Couch
- Identify the differences between the standard, bariatric and extended couch design specifications
- Identify the couch major components and their function
- Describe the power distribution between the couch sub components
- Identify the couch troubleshooting tools
- Demonstrate an ability to calibrate the vertical and horizontal positions of the couch
- Discuss how the couch is safely serviced

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IMPORTANT Notes Regarding Admission to Philips Customer Engineer Training Courses:

1. Trainee must meet all prerequisites
2. Course expires one (1) year from equipment installation date (or purchase date if sold separately)
3. Customer must sign Philips Nondisclosure statement
4. Trainee must sign Philips Nondisclosure statement
5. Customer must sign Philips terms and conditions of training

3	CT3004 CT Ingenuity v4 Software with IMR	1
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Course Number: CT3004

Course Title: CT v4 Software with IMR

Course Length: 3 days

OPTIONS

Line #	Part #	Description	Qty
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Delivery Method(s): Virtual Classroom/Simulators

Modality: CT

Location: CTC/Best/SLC Virtual Training classrooms using Adobe Connect

Target Audience: Service Engineers/BioMeds

DESCRIPTION:

This course provides the engineer with the comprehensive knowledge and skills required to use the v4.x software to operate and calibrate the CT system. This course is a blended learning course, using virtual machine simulators and Virtual Classroom instruction.

PREREQUISITES:

- Ingenuity CT v3.5 CT3001 or iCT CT8011/CT3022

COURSE OBJECTIVES:

OPTIONS

Line #	Part #	Description	Qty
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Upon successful completion of the course the learner will be able to:

- Discuss the software installation process
- Demonstrate ability to plan and perform basic scans including Survey, axial and helical studies
- Demonstrate image manipulation
- Demonstrate window adjust and center values to obtain desired image
- Demonstrate their ability to perform a functional scan
- Use the Image Directory menus
- Demonstrate image archiving and restore
- Identify selectable options in the Preferences button on the scan directory
- Perform software-only calibrations on the scanner
- Execute system performance validation tests
- Use of the Philips Support Connect (PSC) tools to troubleshoot and diagnose system problems

Describe Iterative Model-based Reconstruction (IMR) and its hardware requirements

OPTIONS

Line #	Part #	Description	Qty
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IMPORTANT Notes Regarding Admission to Philips Customer Engineer Training Courses:

1. Trainee must meet all prerequisites
2. Course expires one (1) year from equipment installation date (or purchase date if sold separately)
3. Customer must sign Philips Nondisclosure statement
4. Trainee must sign Philips Nondisclosure statement
5. Customer must sign Philips terms and conditions of training

4	**989801299625	INTRODUCTION TO iDOSE4	1
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This course is available on the Philips Learning Center (PLC) website at <http://theonlinelearningcenter.com>

All of the Academy e-learning courses are located on this site in the Course Catalog under the Academy folder and Modality sub-folder.

Course Number: CT9011
 System Codes: NA
 Course Title: Introduction to iDose4
 Course Length: 60 minutes
 Delivery Method(s):
 Modality: CT
 Location: Adobe Connect
 Target Audience: All CT Service Engineers

DESCRIPTION:

- This class will provide all CT service engineers with an introduction to iDose4.

PREREQUISITES:

- None

COURSE OBJECTIVES:

Upon successful completion of the Ingenuity CT course the learner will be able to:

- Define iDose4 and explain how it works

* PHILIPS PROPRIETARY MATERIALS SUCH AS DIAGNOSTIC SOFTWARE AND SERVICE DOCUMENTATION ARE NOT INCLUDED IN THE TRAINING AND WILL NOT BE AVAILABLE

OPTIONS

Line #	Part #	Description	Qty
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FOR USE OUTSIDE OF THE TRAINING ENVIRONMENT. THE TRAINEE MUST RETURN ALL PROPRIETARY MATERIALS RECEIVED DURING THE TRAINING AT THE END OF THE TRAINING. CUSTOMER ACKNOWLEDGES AND AGREES THAT NEITHER CUSTOMER NOR TRAINEE WILL RECEIVE A LICENSE TO SUCH PROPRIETARY MATERIALS AND THAT THE TRAINEE MAY NOT BE ABLE TO FULLY UTILIZE THE TRAINING WITHOUT THE USE OF SUCH PROPRIETARY MATERIALS. (CERTAIN LICENSES MAY BE OBTAINED THROUGH PURCHASE OF A PHILIPS RIGHTFIT SERVICE AGREEMENT.) Course dates and location to be finalized by Philips. Philips shall attempt to accommodate Customer requested dates and training location. The price quoted includes course tuition. Travel and living expenses are not included, but may be purchased separately through Philips.

IMPORTANT Notes Regarding Admission to Philips Customer Engineer Training Courses:

1. Trainee must meet all prerequisites
2. Course expires one (1) year from equipment installation date (or purchase date if sold separately)
3. Customer must sign Philips Nondisclosure statement
4. Trainee must sign Philips Nondisclosure statement
5. Customer must sign Philips terms and conditions of training

Revision: 20090707

5	UPS 480VAC/60Hz/125kVA/19kWH Staco	1
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Uninterruptible Power Supply (UPS) with Voltage Regulator and Power Entrance Controller functionality. Provides power to permit up to 30 minutes of scanning after a power failure. This allows the user to complete the patient scan, save data and make an orderly system shut-down. Also insures that incoming power meets Healthcare's specifications for optimal CT system reliability and performance. The UPS regulates utility voltage deviations, stabilizes line frequency, and subdues line voltage surges & spikes, prevents loss of phase and total power outages, while also ensuring positive phase rotation.

Input voltage: 480 VAC/60 Hz.

Line Matching Transformer required for 60 Hz input voltages with less than 480 VAC input. Refer to Planning Reference Documentation for more details.

Line #	Description	Qty
1	Number of Concurrent Users NA	1

The Resource Based License (RBL) is a flexible licensing offering, in which the customer can choose a granular number of concurrent advanced visualization users based on the specific needs.

IntelliSpace is designed to create smart clinical integration that often leads to enhanced patient outcomes. It is a thin-client applications server (or workstation deployed for single users) that turns virtually any PC that meets the minimal requirements into an advanced multimodality imaging system workspace that can support radiology, cardiology, oncology, neurology, orthopedics, and other specialties' imaging needs, thereby streamlining clinical workflow. IntelliSpace Portal /IX Workstation uses advanced networking capabilities to enable collaboration among clinicians that may ultimately lead to faster, more accurate and informed patient care. Clinicians can review the results and conduct measurements on images of multiple imaging modalities - including studies acquired from multiple vendors' imaging equipment -- at their convenience in their preferred location. With Intellispace Portal's advanced networking and thin-client technologies, the access to powerful visualization and image processing is significantly enhanced. In addition, the IntelliSpace Portal may now run in a virtual server environment, allowing you to capitalize on the power of your in-hospital network. The IntelliSpace Portal offers powerful capabilities, both standard and optional. Standard capabilities include:

- Thin-client architecture and multivendor compatibility that makes image data and applications available (for Portal configurations) anywhere for all CT, MR, Nuclear Medicine, Ultrasound, iXR and DXR images
- Guided Task workflow walks users through each processing stage from start to finish
- Use of bookmarks, interactive snapshots and other convenient tools to increase efficiencies and minimize training needs
- New color scheme for easier reading
- Performance-based licensing eliminates the need for purchasing a fixed set of licenses
- "Export to Neuro Surgery" feature to provide surgeons with accurate position information of white matter tracks, brain activation areas as well tumors in relation to an anatomical reference series designed for MR Neuro applications.
- Multimodality Viewer for display of CT, MR, Nuclear Medicine, Ultrasound, iXR and DXR datasets - standard
- Smart MR Viewing, smart linking, cine movie loop for MR datasets
- Save electronic Key Image Notes (KIN) directly within images to increase informal communication between various users
- Multimodality Fusion: PET-CT, SPECT-CT, NM-CT, CT-CT, MR-MR and CT-MR
- Automatic Registration: PET-CT, SPECT-CT, CT-CT and MR-MR
- PET/CT Alpha blending and 2D/3D SUV calculations
- Display of multi-frame secondary captures
- 3D Volume rendering, MIP, VIP, minIP, SurfaceMIP
- For Portal configurations: Clinical results can be ported directly into PACS or RIS using HL7, Encapsulated-PDF via DICOM, or mXML. Save Key images, notes, and tables directly to your reports; combine findings from multiple clinical applications into a single patient level report to be transferred directly into the PowerScribe 360 Diagnostic report.

Line #	Description	Qty
	<p>Slab Review capabilities including regional investigation and curved MPR</p> <ul style="list-style-type: none"> • Volume Explorer: for instant and interactive seed-growing 3D segmentation • "Glass View" to display bony structures in relation to 3D volumes • Comprehensive DICOM Printing ("Filming") • Dual monitor support -- for color monitors. • DICOM & IHE compliance • For Portal configurations: Supports PACS integration: Ability to launch the IntelliSpace Portal clinical applications from a PACS or RIS system at the time when the user is reviewing a study. This may improve workflow by automated steps, help reduces mistakes such as typo errors, eliminate additional search on ISP client for specific patients and even study/series after launching ISP client from PACS client. Closing study in PACS will also close it on Portal. (safety requirement. Automated exchange of bookmarks and results between ISP and PACS. Note: Certain PACS vendors may charge for the configuration services which are required per site. • IntelliSpace Portal proprietary technology streams display to the client over a LAN, WAN or any broadband Internet connection through the hospital's VPN (virtual private network) without the need to download the CT, MR or Nuclear Medicine data to the client PC. The 'heavy lifting' and complex processing of the data is done on the server. 	

Concurrency: The concurrency thresholds are based on average usage estimations. Some applications may require additional resources which can limit overall user concurrency. The actual number of concurrent users that may use the system at any given time is limited by the available system resources and may vary. Given heightened resource requirements for Philips IQon CT Scanner Spectral applications (available from version 9), customers may expect Spectral application specific concurrency to be roughly 30% that of conventional applications.

Key specifications and requirements (for Portal Configurations):

VM Ware Specifications:

Memory:

- Memory (RAM) minimum: 2GB RAM. Recommended: 4 GB or above.
- Memory (RAM) minimum: 4GB RAM for clients also running PACS
- Memory (RAM) for NM applications and/or when other applications are running in parallel minimum: 4 GB RAM

CPU:

- Processor (CPU minimum): 2 cores @ 1.8 GHz / 4 cores @ 1.6 GHz
- Processor (CPU Minimum for NM applications and/or when other applications are running in parallel): 3 Cores @ 2.8 GHz / 4 Cores @ 2.4 GHz
- Processor (CPU recommended): 3 Cores @ 2.8 GHz / 4 Cores @ 2.4 GHz

Disk Space:

Free Disk Space*: 4 GB or above (on Drive C)

Additional 5 GB of free disk space are required to burn DVD.

Monitor:

- Minimal screen resolution: 1024x768. Recommended: 1280x1024 (or above)
- Minimal screen Resolution for NM Apps: 1280x1024 (or above)
- Up to 3 Mega Pixel monitors are supported
- Monitor Dots Per Inch Settings: 96DPI
- 24bpp (or higher) color depth monitors
- No support for monochrome or grayscale-only monitors)

Multi monitor: Require adequate support of client display card and driver

Graphic card (added in release notes)

The client machine should also support a graphic card with the following requirements:

1. Native DirectX 9.c support

Line #	Description	Qty
	2. Native GDI+ Support 3. Native Windows Aero interface support 4. 128MB RAM (for the graphic card)	
	Network Minimum Network adapter speed: 100 Mbps or above Recommended Network adapter speed: 1 Gbps or above	
	LAN (Hospital) Network: Network bandwidth/latency (LAN): 100 Mbit/s or above- (1 Gigabit/s or above recommended), 0-5ms Latency recommended.	
	Home connection <ul style="list-style-type: none"> • Network bandwidth/latency (for home connection): 5 Mbit/s or above download speed, 512Kbit/s or above upload speed with latency <20ms • Network bandwidth/latency for NM Apps (for home connection): 10 Mbit/s or above download speed, 1Mbit/s upload speed with latency <10ms • Network bandwidth/latency for NM 3rd Party Apps (for home connection, AutoQuant, Corridor4DM, ECTb, NeuroQ) : • 100Mbit/s download/ 10Mbit/s upload with <10ms latency 	
	Software Pre-Requisites:Supported OS: <ul style="list-style-type: none"> • Windows 7 (32 & 64 bit) • Windows 8 / 8.1 • Windows 10 • Windows 7, 8, 8.1 and Windows 10 require an administrative account for initial installation 	
	Pre-Installed software: <ul style="list-style-type: none"> • Net Framework 4.5.2 Client + Extended or above • Additional Software Recommended (for optional features): • Adobe Acrobat Reader [for Report & Help] • Adobe Flash Player [for On-line Web Trainings] Windows Media • Windows Media Player 9.0 or above [for saving Movies] IMAPIv2 [for Burning CD/DVD] • DirectX 9.c (or better) – Optional component required for better application experience 	

* For the NA Market only

2	IntelliSpace Portal IX NA	1
	The IntelliSpace Portal IX Workstation NA* is a single-user advanced multimodality imaging system workspace that can support radiology, cardiology, oncology, neurology, orthopedics, and other specialties' imaging needs, to support your imaging workflow. Clinicians can review the results of multiple imaging modalities - including studies acquired from multiple vendors' imaging equipment - from one workspot. The IntelliSpace Portal IX Workstation offers powerful capabilities, both standard and optional. Standard capabilities include: <ul style="list-style-type: none"> • Multivendor compatibility that makes image data and applications available for all CT, MR, Nuclear Medicine images • Guided Task workflow walks users through each processing stage from start to finish • Use of bookmarks, interactive snapshots and other convenient tools to increase efficiencies and minimize training needs • Multimodality Viewer for display of CT, MR and Nuclear Medicine datasets • Smart MR Viewing, smart linking, cine movie loop for MR datasets • Multimodality Fusion: PET-CT, SPECT-CT, NM-CT, CT-CT, CT-MR, and MR-MR • Automatic Registration: PET-CT, SPECT-CT, CT-CT and MR-MR • PET/CT Alpha blending and 2D/3D SUV calculations • Display of multi-frame secondary captures 	

Line #	Description	Qty
	<ul style="list-style-type: none"> • 3D Volume rendering, MIP, VIP, minIP, SurfaceMIP • Slab Review capabilities including regional investigation and curved MPR • Volume Explorer: for instant and interactive seed-growing 3D segmentation • "Glass View" to display bony structures in relation to 3D volumes • Comprehensive DICOM Printing ("Filming") • DICOM 3.0 & IHE compliance <p>HP Workstation ISP IX Chassis Z440 700W 90 Percent Efficient Chassis Processor Single Intel Xeon E5-1660v3 3.00GHz 20MB 2133 8C Memory 16GB DDR4-2133 (4x4GB) Hard drive 1.2TB SAS 10K 2.5in Optical Drive Slim DVDRW Graphics NVIDIA Quadro K620 2GB DL-DVI(I)+DP Keyboard and Mouse HP USB BFR-PVC Intl Keyboard/Mouse Kit Operation System Windows 8.1 Pro 64 downgrade to Windows 7 Pro 64 Warranty – 1 year HW warranty, the details of the hardware warranty are set according to local hardware service or support operations.</p> <p>Enhanced Zero-Click Performance option: 16GB DDR4-2133 (4x4GB) for a total of 32GB memory</p> <p>"The hardware specification in the quote is just for reference. The hardware that will eventually be delivered to customer under this quote either meets or exceeds the mentioned specs under your agreement." * For the NA Market only</p>	
3	<p>Lung Nodule Assessment IX</p> <p>Philips' Lung Nodule Assessment (LNA) is a powerful post processing clinical tool that provides the physician with quantitative and volumetric information about the size, shape and change over time of user-identified pulmonary lung nodules that are identified on high-resolution and low dose computed tomography (CT) images. LNA can also be used on low dose CT chest scans that may support Low Dose CT Lung Cancer Screening*.</p> <p>The LNA program optimizes overall performance and workflow of the lung nodule assessment process and enables volumetric analysis of pulmonary nodule or lesion size over time, helping the physician to assess the nodule's doubling time growth rate.</p> <p>A single-click allows readers to rapidly switch between presets for the lung parenchyma, mediastinum, and bone. It delivers a robust comparative tool for nodule matching, one-touch segmentation and editing tools (2D, 3D), standardized measurement information and computerized results reporting supported by efficient presentation.</p> <p>Quantitative size information can be reported on individual nodules during a single exam. Segmentations on each nodule are automatically stored and retrieved when the study is loaded for follow-up comparison after a new exam is completed. At this point, the user can load both the current and previous lung studies for linked viewing and comparison of nodules in each study.</p> <p>Multi-Vendor Compatibility**</p> <p>Prerequisite: IntelliSpace IX Workstation 8.0 or higher</p>	1

Line #	Description	Qty
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*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 contact your local Philips representative for details on Multi-Vendor coverage

4	CT Calcium Scoring IX	1
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Calcium Scoring is an application that rapidly quantifies coronary artery calcifications (CAC). The application can report results in Mass, Agatston, and Volume scoring methods.

Prerequisite: IntelliSpace workstation IX

5	Multimodality AVA IX	1
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AVA Stenosis offers a set of tools for general vascular analysis using CTA or MRA data sets. (For MR, AVA is compatible with Time-of-Flight (TOF), contrast enhanced MRA's, multi-phase data, and whole body acquisitions)

For CT, enhanced algorithms easily remove or edit bone (skull or body), and extract and segment the vessels to quickly perform typical measurements such as intra-luminal diameter, cross sectional lumen area, length and tortuosity of vessel's segments, and angle of the vessels. Simplified, interactive measurement tools make it easy for the user to calculate the angulation between the superior neck and aneurysm, the angle between the superior neck and aneurysm lumen, as well as other complex anatomic calculations.

For CT and MR, AVA allows the user to display the dataset using volume rendering, Average, or MIP with cross sections images that can be used to delineate aneurysm, presence of mural calcification and lining mural thrombus, branch vessel (celiac, mesenteric, renal) and the ilio-femoral arterial runoff circulation.

In addition, the application produces batches of cMPR, cross-sectional, MPR and volume images created completely automatically, even before the user arrives to the system to shorten the total reading time. New workflows now support specific findings creation, like Stenosis, Aneurysm, Diameter measurements. Finally, AVA allows to organize the findings systematically, save and export them, thus providing a consistent ability to review complex structures.

Prerequisite: IntelliSpace workstation IX V7 or convert IX to V7 or Upgrade IX to V7

6	CT Virtual Colonoscopy IX	1
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Philips CT Virtual Colonoscopy is the fastest way to perform & interpret a virtual colonoscopy exam. Philips CT-VC reduces reading times to approximately five-to-ten minutes. In comparison read times with competitive products routinely approach 30-40 minutes, significantly limiting the number of cases that can be performed per day.

Key to the success of the CT-VC package is the power and flexibility the package provides, beginning with a new, exclusive rendering view called Perspective Filet. The Perspective Filet view provides a 'virtual dissection' of the colon by unfolding or unrolling along the centerline and displaying a portion of the colon for inspection. The Filet of the tube enables the clinician to see the entire area of a colon segment in one view, including the areas in and around folds of the colon (haustra). The image is not really flat, but rather a perspective projection that allows viewing of all three surfaces of folds and in between tight folds enabling the clinician to view 100% of the surface of the colon with no image or hands-on manipulation.

Key features:

Line #	Description	Qty
	0-click auto-segmentation of colon and centerline with total prep time of just seconds, not minutes	
	Flexible viewing allows user to select between primary 2-D and 3-D inspection modes (forward, reverse, Filet, split and 2D-centerline inspection).	
	Prone-Supine comparison	
	Prerequisite: IntelliSpace workstation IX	
7	Reporting IX	1
	Provides reporting capabilities for dissemination of clinical results from the IntelliSpace Workstation including display of key images and results frames. The report is available for referring physicians, patients, or for medical records. Each report is editable and new default templates can be easily created and included in the system configuration. The report can be saved as a PDF file for digital transfer or printed as a paper report.	
	Prerequisite: IntelliSpace workstation IX	
8	Enhanced Zero-Click Perf. IX	1
	This option, also known as Enhanced Performance, is a powerful upgrade for the IntelliSpace IX workstation which enables "zero-click" automated processing without any user interaction, for the following clinical functions:	
	<ul style="list-style-type: none"> • Automatic preprocessing of bone removal and vessel segmentation within the Advanced Vessel Analysis (AVA) IX application for CT angiography (CTA) cases • Automatic segmentation of cardiac anatomy within the Comprehensive Cardiac Analysis IX application • Automatic segmentation of the centerlines of the inner lumen of the colon for the Virtual Colonoscopy IX application • Liver Volume, Hepatic and Portal vessel automatic segmentation and classification for the CT Liver Analysis IX application 	
	Preprocessing automatically begins when the entire dataset has been loaded onto the IntelliSpace IX workstation, for true "zero-click" convenience.	
	Prerequisite: IntelliSpace workstation IX	
9	ISP Initial Handover End User	1
	A Philips Clinical Workflow Adoption Consultant will provide a twenty-four (24) hour introduction to advanced visualization techniques for Technologists and /or Radiologists over three consecutive business days. The education will cover the fundamentals of image manipulation and processing associated with the specific software (application packages) purchased. Philips requires no more than 5 attendees per session to maximize the educational value.	
	Attendee(s) are responsible for adhering to the agreed upon clinical education statement of work. ASRT CEU credits may be available for each participant who meets ASRTcriteria. Education expires one (1) year from equipment installation date (or purchase date if sold separately).	