

ANEXA nr.1

- 1 Incisive CT
- 2 AV CT Essential IX Statie de postprocesare
- 3 Injector substanta de contrast compatibil CT double head Medrad Salient
- 4 24 luni garanție
- 5 25 zile training on site
- 6 Panou electric
- 7 Geam plumbat

1 728144 Incisive CT

Pos	Qty.	Description
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1	1	NCTE363 Incisive CT Base System 1.1
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This is the 1.1 version of Incisive CT.

With today's increasingly complex healthcare dynamics, you need a solution that performs for you by allowing for intelligent decisions at every point. That solution is Philips Incisive CT. Like never before, operator and design efficiencies come together in one very smart CT solution for wise decisions every step of the way. Philips is empowering you by helping connect data and technology to confidently achieve improved clinical outcomes, reduce costs, and enhance patient and staff experience. Incisive thinking leads to smart approaches from the start.

ExamCards

ExamCards are the evolution of the scanning protocol. ExamCards can include axials, coronals, sagittals 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.

vMRC X-ray Tube

Liquid coolant carries heat away from the vMRC X-ray tube, so Incisive CT is ready for the most demanding scans, one right after the other. The Philips vMRC 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 Elite tile detector design.

70kVp

The 70 kV scan mode allows for improved low-contrast detectability and confidence at low dose.

Worklist

Provides HIS/RIS interface through DICOM modality worklist service class; enhances clinical workflow by importing patient demographics and study information from an information management system.

MPPS

Provides performed exam information (start/end/info) to HIS/RIS using DICOM MPPS (Modality Performed Procedure Step) service.

CT Reporting

Provides capabilities for editable paper, print, and electronic clinical reports; including display of key images and results.

- MPR
- MIP
- MinIP
- AIP
- Volume Rendering
- Virtual Endoscopy

Reconstruction

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 full 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 helical 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 nonhomogeneous bodies, improving overall image quality.

Cone Beam Reconstruction Algorithm

Philips unique Cone Beam Reconstruction Algorithm enables true three-dimensional data acquisition and reconstruction in helical scanning.

1024 × 1024 Large Imaging Matrix

1024 × 1024 image reconstruction matrix 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.

O-MAR

O-MAR reduces artifacts caused by large orthopedic implant.

Dose Management

The Incisive CT employs a number of features that help provide high dose efficiency.

DICOM Structured Report for Dose (DICOM SR)

Dose SR complies with the IEC, DICOM PS and IHE standards for dose reporting. The report includes CTDIvol and DLP dose values.

Dedicated Pediatric Exam Cards

Developed in collaboration with top children's hospitals, age and weight-based infant /pediatric protocols enhance image quality at low dose.

DoseRight Index (DRI)

Personalizes the dose for each patient based on the planned scan by suggesting the optimal mAs settings for every patient size in order to get consistent image quality regardless of the operator.

3D Dose Modulation 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).

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).

Dose Displays

Volume Computed Tomography Dose Index (CTDIvol)

Dose-Length Product (DLP)

Scan and Image Acquisition

Helical Scanning

Multiple contiguous slices acquired simultaneously with continuous table movement during scans allowing for multiple, bidirectional acquisitions.

Axial Scanning

Multiple-slice scan with incremental table movement between scans.

Test Injection Bolus Timing

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.

Split Study

Allows automatic split of the Exam series into separate Exams based on the Procedure Descriptions.

Image Management, Storage, and Filming

DICOM 3.0-compliant image format. Images can be auto-stored to selected archive media.

DICOM DVD/CD writer

Stores DICOM images and associated image viewing software on DVD/CD media. Images on these DVD/CDs can be viewed and manipulated on PCs meeting the minimum specifications. Suited for individual result storage and referring physician support.

Filming

Basic monochrome and color DICOM print capability are supported.

Networking

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.

DICOM Connectivity

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.

Operator Console, Patient Handling, and Setup

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 Windows® 10-based host computer 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.

Dual-monitor parallel workflow

Dual-monitor console is designed for simultaneous operations of scanning on left side monitor and post processing like filming, reporting, CD writing, reviewing and analysis on right side monitor for uninterrupted workflow.

Supports Parallel workflow using Dual-monitor for Console.

Dual monitor workflow:

- Left monitor: schedule, new patient, scan, settings, service.
- Right monitor: Complete, viewers, Analysis, offline recon, film, report, online-help .etc.

Scan

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. In addition, manual operator control over axial scan progress can also be set on preferences according to user's choice.

Additional functions at the operator's console include emergency stop, intercom and scan enable/pause buttons.

Gantry Aperture: 720 mm diameter

Gantry Tilt: -24° to +30° with 0.5° increments.

Intercom System and Multilingual Auto-voice

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.

Patient Table

The Incisive CT provides a patient table with maximum scannable range of up to 1,860 mm.

Note: The scannable range is dependent on the scan protocols, patient positioning, and includes the use of foot extension.

Table Accessories

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

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

Power Requirements

200/208/240/380/400/415/440/460/480VAC, 50/60 Hz 115kVA, three-phase distribution source.

Tube - For Life guarantee:

Multi-Slice CT Tube replacement is included as needed for as long as the system is operational within the same customer location, or 10 years from the installation date, whichever occurs first.

To ensure optimal performance and lifetime from the Multi-slice CT Tube, a Philips parts and labor Service Agreement must be maintained, uninterrupted for the entire term of the tube guarantee. Any lapse in the service agreement coverage will void the Multi-slice CT Tube guarantee.

2 1 **NCTE306** Incisive CT Plus

Philips Incisive CT Plus is a commercial configuration of Incisive CT.

Incisive CT Plus Key Features and Capabilities

- 128-slice per rotation
- iDose
- 0.4 second rotation
- vMRC X-Ray Tube
- 70, 80, 100, 120, 140 kV Stations
- 72 kW (94 kW equivalent)
- 4 cm coverage
- Bolus Tracking
- SAS
- OnPlan touchscreen gantry controls
- NanoPanel Elite Detector

Features

iDose

Philips iDose is a set of user-selectable noise reduction algorithms, some of which may be applied iteratively, and is implemented in conjunction with a back projection reconstruction process.

iDose gives you control of the dial so you can personalize image quality based on your patients' needs at low dose. When used in combination with the advanced technologies of the Philips CT scanner families, it provides a unique approach to managing important factors in patient care — a new era in low-energy, low-dose and low-injected-contrast imaging.

iDose balances high image quality, low dose, natural appearance, and easy workflow. iDose iteratively removes noise, prevents artifacts, and preserves morphological information using statistical and structural models in both projection (raw) and image domains.

0.4 Second Rotation

0.4-second 360° rotation affords advanced clinical applications and high-speed, motion-free imaging.

Bolus Tracking

An automated injection planning technique to monitor actual contrast enhancement and initiate scanning at a predetermined level.

Injector Triggering (SAS)

Spiral Auto Start integrates the injector with the scanner, allowing the technologist to monitor the contrast injection to check for extravasation, and to initiate the scan (with the predetermined delay) while in the scan room.

NOTE: Costs to upgrade an approved injector and any cabling is the responsibility of the user.

3 1 **NCTE324 Cardiac Plus**

Cardiac Plus includes a set of features designed to allow cardiovascular imaging of the heart. Includes Cardiac Scan, Cardiac Calcium Scoring, Cardiac Artery Analysis and Cardiac Function Analysis, as well as the integrated ECG monitor.

Retrospective Tagging

Helical Retrospective Tagging allows the CT system to acquire a volume of data while the patient's ECG is recorded. The acquired data is "tagged" using Qsync and reconstructed retrospectively at any desired phase of the cardiac cycle.

Prospective Gating

Prospectively triggers axial scans for accurate and reproducible calcium scoring studies, as well as coronaries analysis studies.

Calcium Scoring

The Cardiac Calcium Scoring application is used to quantify the buildup of calcium plaque on the walls of the patient's coronary arteries and other relevant locations. The potential calcifications are highlighted by the application during launch.

As you mark calcifications, the application accumulates the calcium data

and calculates the patient's Calcium Score based on a scoring protocol. A compare function allows you to evaluate scoring results from two studies of the same patient, the original and a follow-up.

Cardiac Coronary Artery Analysis

Extract, define and display coronary artery tree; Calculate the stenosis ratio of the extracted vessel.

CFA (Cardiac Function Analysis)

A comprehensive cardiac analysis application that allows quick visualization of one or more cardiac phases, synchronization of multiple cardiac phases with interactive slab-MIP tools for review purposes, and a calculation of End Systolic Volume (ESV), End Diastolic Volume (EDV), Cardiac Output (CO), and Ejection Fraction (EF) for ventricular functional assessment.

DoseRight Cardiac

ECG-triggered dose modulation reduces tube current during acquisition of non-desired phases. 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, managing dose.

Integrated ECG Monitor

PIM (Patient Interface Module) kit is the Integrated ECG Monitor.

Philips' advanced ECG monitor is used for gated cardiac scans.

Integrated design eliminates the need for an additional ECG monitor and stand in the scan room.

Adaptive multicycle reconstruction

Image data can be prospectively gated or retrospectively tagged.

Automatically delivers the best temporal resolution possible for the current scan (up to 44 ms in cardiovascular studies when 0.35s/r is available).

4 1 **NCTE370** Standard Table - Incisive Table Specifications

Scannable range:	1,860 mm
Z-position accuracy:	+/- 1.0 mm
Longitudinal speed:	1 mm/s – 300 mm/s
Lowest table height:	530 mm
Maximum load capacity:	452 lbs (205 kg)

5 1 **NCTC705** Arm Support

The arm support provides an additional working surface that can be positioned laterally on the table. This option includes a single symmetrical arm support that can be positioned on either side of the table.

6 1 **NCTC710** Flat Head Holder

The flat head holder is ideally used for routine child or adult CT head exams. With this head holder, the head is in-line vertically with the

body.

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| 7 | 1 | <p>NCTC715 Coronal Head Holder</p> <p>Coronal head holder helps orient patients in a submento-vertex position, allowing more direct coronals for clearer diagnosis. Contributes to decreased anatomical distortion through reduced gantry angulation and reduces patient motion.</p> |
| 8 | 1 | <p>NCTA131 Computer Table</p> <p>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.</p> |
| 9 | 1 | <p>NCTA132 Operator's Chair</p> <p>One (1) standard height operator's chair.</p> |
| 10 | 1 | <p>NCTB370 Console UPS</p> <p>Uninterruptible Power Supply (UPS) provides up to 30 minutes of battery backup for computer/reconstruction system.</p> |
| 11 | 1 | <p>NCTC824 Brain Perfusion</p> <p>Brain Perfusion package differentiates areas of increased blood volume and decreased blood flow and presents this information in a summary map. The summary maps may help clinicians distinguish between still-viable and non-viable infarcted tissue. Philips Advanced Brain Perfusion provides motion correction, noise reduction and improved ease-of-use to maximize efficiency.</p> <p>Using serial CT scans obtained with intravenous injection of contrast, the Brain Perfusion package derives perfusion information from the time-density curves based on the uptake of injected contrast material and subsequent tissue enhancement (or lack of). The package generates quantitative color maps of cerebral blood flow (CBF), cerebral blood volume (CBV), rise time(RT) and time-to-peak (TTP), in addition to the summary maps.</p> |
| 12 | 1 | <p>NCTE355 Neuro Essentials - Incisive</p> <p>Neuro Essentials includes two clinical applications - Brain Perfusion and Jog Scan.</p> <p>Brain Perfusion application differentiates areas of increased blood volume and decreased blood flow and presents the information that may help to distinguish between still-viable and non-viable infarcted tissue.</p> <p>Using serial CT scans obtained with intravenous injection of contrast, Brain Perfusion derives perfusion information from the time-density curves based on the uptake of injected contrast material and subsequent tissue enhancement. The application generates quantitative color maps of cerebral blood flow (CBF), cerebral blood volume (CBV), mean transit time (MTT) and time-to-peak (TTP).</p> <p>The Jog Scan feature provides up to 80 mm of imaging area for perfusion studies. An axial scan is taken in one location, the couch translates to another location within a few seconds, and another axial scan is taken.</p> |

These multiple datasets are registered automatically to provide the extended coverage. Combined with Brain Perfusion with summary maps, the Jog Scan application can position CT as the modality of choice for acute stroke evaluation, providing unprecedented functional information over the functionally significant area of the brain.

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| 13 | 1 | <p>NCTC821 Lung Nodule</p> <p>Lung Nodule Assessment (LNA) and comparison program is a powerful clinical tool that provides the physician with quantitative information about the size, shape and change over time of user-identified pulmonary lung nodules that are identified on high-resolution computed tomography (CT). The LNA program optimizes overall performance and workflow of the lung nodule assessment process. It delivers a robust comparative tool for nodule matching, one-touch segmentation, standardized measurement tools and results reporting on current and previous lung CT scans of the same patient. The LNA program allows for volumetric analysis of pulmonary nodule or lesion size over time, helping the physician to accurately assess the nodule's doubling time growth rate.</p> <p>Lung Nodule Assessment program allows the user to segment physician-identified lung nodules with a single click of the mouse. Quantitative size information can be reported on individual nodules during a single exam. Segmentations on each nodule Can stored and retrieved. At this point, the user can load both the current and previous high-resolution lung studies for linked viewing and comparison of nodules in each study.</p> |
| 14 | 1 | <p>NCTC827 CT Colonoscopy</p> <p>CT Colonoscopy is a fast and effective way to perform and interpret a virtual colonoscopy exam. Philips Healthcare offers a unique colon visualization technique called the Perspective Filet View in the virtual colonoscopy application.</p> <p>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 in one pass.</p> <p>Key features:</p> <ul style="list-style-type: none"> Automatic segmentation of colon and centerline 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 |
| 15 | 1 | <p>NCTC830 Vessel Analysis</p> <p>Vessel Analysis offers a set of tools for general vascular analysis. It allows the user to easily remove bone, and extract and segment the vessels to quickly perform typical measurements such as intra-luminal diameter, cross sectional lumen area and length of vessel's segments. Vessel Analysis allows the user to display the dataset using volume rendering and MIP with cross sections images that can be used to delineate aneurysm, presence of mural calcification and lining mural thrombus,</p> |

branch vessel (celiac, mesenteric, renal) and the ilio-femoral arterial runoff circulation.

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NICH500 CT Incisive Pkg WS

NICH500-CT Core Package workstation:

· The CT Core Package workstation will include the following options:

- 1. NICA455-IntelliSpace IX Workstation HW+ 1 User
- 2. NICB102-Multimodality AVA IX
- 3. NICB260-Zero-click Enh. perform for IX
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· **1. NICA455-IntelliSpace IX Workstation HW:**

· The IntelliSpace Portal IX Workstation 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 work spot. The IntelliSpace Portal IX Workstation offers powerful capabilities, both standard and optional. Standard capabilities include:

- 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 data sets
- 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
- 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

IntelliSpace Portal IX Workstation

Chassis - HP Z4

Processor - Intel Xeon W-2145 3.7GHz

Memory 16GB

Hard drive - 256GB SSD

Hard drive - 1TB SATA

DVD Drive

Graphics card - NVIDIA Quadro P620

Monitor - 24" Monitor

Keyboard and Mouse

Operation System - Windows 10

* The IX hardware workstation 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.”

Warranty - the details of the hardware warranty are set according to local hardware service or support operations and subject to change, please consult with your representatives.

Enhanced Zero-Click Performance option allows to upgrade your default RAM memory of 16GB towards 32GB memory

2. NICB102-Multimodality AVA IX:

The Multi-Modality AVA application is intended for visualization, assessment, and quantification of vessels in CTA and MRA data with a unified workflow for both modalities. For CTA data, it provides automatic segmentation including extraction of vessel centerlines, lumen contours and vessel contours. For both modalities, it provides tools for extracting and editing centerlines.

The AVA Head Neck Smooth Method offers a smoother Volume rendering visualization method of the vascular tree (in comparison to the regular Volume rendering visualization), following Bone removal for CT Head and Neck scans. MM AVA offers inspection views for local analysis of the dataset and for the overview of a selected vessel centerline. It allows creating, storing, and reviewing of basic vascular measurements as well as access route planning.

Key Benefits:

- The application provides tools for visualization, assessment, and measurements of vessels in CTA and MRA data, for vascular lesions such as cerebral and carotid stenosis, aortic aneurysm, as well as peripheral arterial disease
- The application performs bone removal, vessels extraction and segmentation (including 3D visualization of the vessels), in an automatic or semi-automatic manner for the relevant datasets
- The application enables performing different measurements (e.g. intra-luminal diameter, cross-sectional lumen area, length, tortuosity of vessel segments and angles of vessels), for stenosis and aneurysm in an automatic or manual manner
- Measurements can be created, saved, and reviewed. Annotations markers can also be created
- Automatic tools, such as bone removal, navigation path, vessel labeling, inner and outer lumen contours, and Automatic Series Creation (ASC) are designed to streamline the workflow
- The application was shown to reduce by 50% the post-processing time when compared to manual Head & Neck CT angiography (CTA) analysis. (Ardley N et al. Efficacy of a new post processing workflow for CTA head and neck. ECR 2013 / C-1760.)
- Automatic Series Creation (ASC) enables automatic creation of cMPR, cross-sectional, MPR and volume images before the study was opened
- The application enables users to capture and label multiple findings, with the ability to navigate between them
- The application enables users to export customizable reports to the Radiology Information System (RIS) or PACS

- The application includes the ability to print results on a customized report

Prerequisite: IntelliSpace Portal IX 9 or higher

Enhancements for version 12:

MM AVA offers inspection views for selected vessels centerlines and local analysis. It allows creating, capturing, and reviewing of basic user selected endovascular measurements (and calculations when applicable), as well as predefined measurements sets and measurements correlations. The AVA application is intended to be used for arteries analysis in: Head and Neck, Body, and Peripherals. MM AVA now offers a new, simplified workflow, designed to speed your analysis work while continue to support in clinical decision.

It includes:

- New intuitive User Interface
- Reduced steps, fewer clicks, and results saving automation, to accelerate time to results generation and capturing
- New improved fully automatic Head & Neck bone removal and vessel extraction algorithm (including automatic extraction of the Subclavian arteries)
- New semi-automatic, interactive editing and segmentation tools, for coping with challenging vessel's pathologies
- New lumen contour mechanism for vessel inspection

3.NICB620-Zero-click Enh. perform for IX

This option, also known as Enhanced Performance, enables “zero-click” automated processing without any user interaction, for the following clinical functions:

Key Benefits:

- Automatic preprocessing of bone removal and vessel segmentation within the Advanced Vessel Analysis (AVA) application for CT angiography (CTA) cases and MR Angiography (MRA) cases
- Automatic series creation for Advanced Vessel Analysis Application includes cMPR, cross-sectional, MPR and volume images created completely automatically, even before the user arrives to the system
- Automatic segmentation of cardiac anatomy within the Comprehensive Cardiac Analysis application
- Automatic segmentation of the centerlines of the inner lumen of the colon for the Virtual Colonoscopy application
- Liver Volume, Hepatic and Portal vessel automatic segmentation and classification for the CT Liver Analysis application
- Preprocessing of CT Brain Perfusion application to generate and send results automatically to PACS

Preprocessing automatically begins when the entire dataset has been loaded onto the IntelliSpace IX workstation, for true “zero-click” convenience.

In addition, machine-learning feature allows IntelliSpace Portal to learn from prior application usage and automatically indicate the series and data type on which pre-processing should be applied.

The feature periodically re-learns the data to track changes in usage

needs. No user configuration is required.

Please note that Machine-learning feature requires 32GB of RAM, please order NICB476

Upgrade Pre-Processing to IX HW to support this.

Prerequisite: IntelliSpace Portal 9 or higher

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NICB790 AV CT Essential IX

The AV CT Essential IX package provides a base clinical and workflow applications on the IntelliSpace Portal focused on Vascular diseases.

The package will include the following options:

1.NICB102-Multimodality AVA IX

2.NICA713- Reporting IX

1.NICB102-Multimodality AVA IX

The Multi-Modality AVA application is intended for visualization, assessment and quantification of vessels in CTA and MRA data with a unified workflow for both modalities. For CTA data, it provides automatic segmentation including extraction of vessel centerlines, lumen contours and vessel contours. For both modalities, it provides tools for extracting and editing centerlines.

MM AVA offers inspection views for local analysis of the dataset and for the overview of a selected vessel centerline. It allows creating, storing and reviewing of basic vascular measurements as well as access route planning.

Key Benefits:

- The application provides tools for visualization, assessment, and measurements of vessels in CTA and MRA data, for vascular lesions such as cerebral and carotid stenosis, aortic aneurysm, as well as peripheral arterial disease.
- The application performs bone removal, vessels extraction and segmentation (including 3D visualization of the vessels), in an automatic or semi-automatic manner for the relevant datasets.
- The application enables performing different measurements (e.g. intra-luminal diameter, cross-sectional lumen area, length, tortuosity of vessel segments and angles of vessels), for stenosis and aneurysm in an automatic or manual manner.
- Measurements can be created, saved, and reviewed. Annotations markers can also be created.
- Automatic tools, such as bone removal, navigation path, vessel labeling, inner and outer lumen contours and Automatic Series Creation (ASC) are designed to streamline the workflow.
- The application was shown to reduce by 50% the post-processing time when compared to manual Head & Neck CT angiography (CTA) analysis. (Ardley N et al. Efficacy of a new post processing workflow for CTA head and neck. ECR 2013 / C-1760.)
- Automatic Series Creation (ASC) enables automatic creation of cMPR, cross-sectional, MPR and volume images before the study was opened.
- The application enables users to capture and label multiple findings,

with the ability to navigate between them.

- The application enables to export customizable reports to the Radiology Information System (RIS) or PACS.
- The application includes the ability to print results on a customized report.

2.NICA713- Reporting IX

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.

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NICB781 AV CT Cardiac Pro IX

The AV CT Cardiac Pro IX package provides a suite of key clinical applications on the IntelliSpace Portal focused on Cardiac diseases.

The package will include the following options:

1.NICA679-CT Comp Cardiac Analysis IX

2.NICA677-CT Cardiac Viewer IX

3.NICA681-CT Calcium Scoring IX

1. NICA679-CT Comp Cardiac Analysis IX

The Comprehensive Cardiac Analysis (CCA) application is designed to assist the user in viewing, analyzing and quantifying dedicated Cardiac CT Angiograms, mainly for coronary arteries analysis on Coronaries CT Angiogram (CCTA) data. The application also offers cardiac function measurements. The application uses an automatic 3D model-based whole-heart segmentation to enable cardiac functional analysis. Analysis calculations include standard cardiac parameters such as EF, SV, CO, LV and RV mass, regurgitation volume and fraction index, RV/LV Early and Late filling volumes, and Early/Late LV filling ratio. The user has the ability to edit and modify the segmentation and the derived parameters. The application also enables automatic extraction and visualization of the coronary tree. If required, the user has the ability to edit these results.

Key Benefits:

- Supports the quantification of high-density structures such as calcified lesions in the cardio-thoracic region (e.g. coronary arteries, heart valves, aorta).
- One-click 3D segmentation and quantification for coronary arteries calcifications (CAC) include mass, Agatston, and volume scores.
- Assessment of coronary artery calcium burden can be used as a prognostic indicator of the patient's risk of morbidity/mortality from

atherosclerotic coronary heart disease.

- Calcium scoring is achieved by performing automatic calculations on CT Hounsfield units inside Regions-of-Interest (ROIs), which the operator manually places around selected areas within a sequence of images.
- The application supports ECG-gated and non-ECG-gated images in DICOM format from other vendors*. However, mass score can only be calculated for images acquired from Philips CT scanners * Please contact your local Philips representative for details on multi-vendor coverage.
- The application incorporates parameters from a large patient cohort with multislice CT calcium scores (Multi-Ethnic Study of Atherosclerosis, MESA database).
- The application supports the creation of automated and customizable reports and distribute them electronically or on paper.

2. NICA677-CT Cardiac Viewer IX

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.

Prerequisite: IntelliSpace workstation IX

3. NICA681-CT Calcium Scoring IX

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

Enhancements for version 11:

- MESA (Multi-Ethnic Study of Atherosclerosis) based Risk score analysis included

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NICA663 CT Advanced Brain Perf IX

Philips CT Brain Perfusion package supports the analysis of dynamic and/or serial CT brain images after injection of contrast, and generates qualitative and quantitative information about changes in image intensity over time.

Key Benefits:

- Perfusion maps of cerebral blood flow (CBF), cerebral blood volume (CBV), mean transit time (MTT) and time-to-peak (TTP)

- Default summary maps to help physicians in determining areas of reduced cerebral blood flow compared to the contra lateral hemisphere
- Manual adjustment of the parameters and thresholds of the summary maps according to the physician's preference
- Permeability analysis to assess contrast agent permeation of the blood-brain barrier
- Preprocessing option used to reconstruct time-invariant CT Angiography series
- Colored warning strips (Traffic Lights), indicating the quality of the CT Perfusion data

Enhancements for version 11:

In IntelliSpace Portal version 11, perfusion results and summary maps are automatically generated and sent to the PACS for review. Please note that automatic results on PACS requires NICA286 Enhanced Zero-Click Perform V9 as pre-requisite.

Enhancements for version 12:

CT Brain Perfusion now offers ability to automatically generate and share perfusion and summary maps results via email to a pre-defined list of recipients.

(1) Content sent via email is not for diagnostic use

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| 20 | 1 | <p>NICA675 CT Cardiac Plaque Assmt IX</p> <p>CT Cardiac Plaque Assessment option enables performing cross-sectional measurements along the coronary arteries, and automatically calculates regional and global quantities of plaque volume. The tool provides automatic color-coded visualization of plaque content areas on vessel cross-sectional images. The user has the ability to edit the automatic results.</p> |
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Key Benefits:

- Enables determination of the presence, extent, and properties of coronary plaques.
- The tool enables performing cross-sectional measurements along the coronaries, and automatically calculates regional and global quantities of plaque volume.
- Automatic color-coded visualization of findings (followed by user-approval), of plaque content (e.g. calcified and non-calcified) areas on vessel cross-sectional images.

Prerequisite: Comprehensive Cardiac Analysis IX

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| 21 | 1 | <p>NICA070 Philips Remote Services Connectivity (RSC)</p> <p>Philips Remote Services (PRS) provides a common high-speed, high</p> |
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availability, reliable, and secure access path to IntelliSpace Portal and IX Workstation in your healthcare facility. It gives access to the appropriate service expertise remotely resulting in rapid, advanced support. PRS can be used for remote diagnosis of problems and repair where possible, download of log files and systems data and other future enhanced services as they are defined and made available

Please note that PRS can be utilized in 2 connection types: RSN-VPN or PRS VPN/SSL. Please, refer to Site Preparation Guide and Installation Instructions for latest instructions on IP, Ports and other settings that are required to setup one of the types of Philips Remote Services Connectivity.

Prerequisite: IntelliSpace Portal or IX Workstation 9 or higher