Canon

Product Data
No. MPDHI0018EAI

(European edition)

Vitrea
V7.14

APPLICATION

Vitrea software is a multi-modality advanced visualization system providing comprehensive applications in a variety of IT environments.

APPLICABLE COMBINATIONS

The clinical solutions are applicable to the following systems:

- Canon Medical Systems AWS (Angio Workstation) for Angiography System

Supported version of AWS
V6.1 or later

- Canon Medical Systems CT System

Supported Scanners
Aquilion ONE series
Aquilion series

- Canon Medical Systems MRI System

Supported Scanners	System Version
Vantage Centurian	V6.0 or later
Vantage Galan 3T	V4.0 or later
Vantage Titan 3T	V2.30 or later
Vantage Orian	V4.5 or later
Vantage Fortian	V8.0 or later
Vantage Titan	V2.31 or later
Vantage Elan	V3.0 or later

- Applicable Combinations of Olea Medical® Applications and MRI

	Vantage Centurian	Vantage Galan 3T	Vantage Titan 3T	Vantage Orian	Vantage Fortian	Vantage Titan	Vantage Elan
Relaxometry T2* map	V6.0 or later	V4.0 or later	V2.50 or later	V4.5 or later	V8.0 or later	V3.6 or later	V4.0 or later
Relaxometry T2 map			V3.5 or later				
Metabolic			V2.50 or later				
IVIM			V3.5 or later				

SUPPORTED DICOM AND DATA MANAGEMENT SERVICES

- DICOM 3.0 export
- DICOM query/retrieve
- DICOM storage as SCU and SCP (receive and push)
- DICOM printing
- DICOM archival CD/DVD

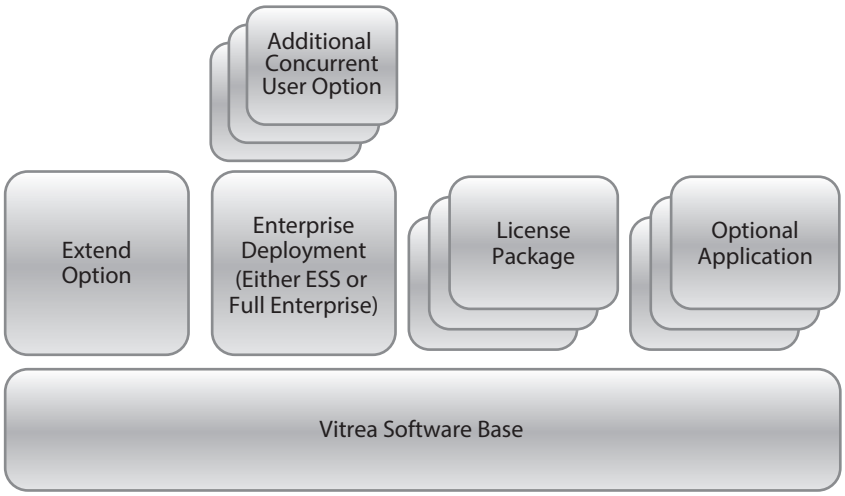
SECURITY STANDARDS

- Controlled user access

HARDWARE CONFIGURATION

Please refer to the latest version of Vitrea Advanced Visualization Technical Specifications document.
Product Data No. "MPDHI0017Exx".

SOFTWARE CONFIGURATION



SUPPORTED MONITOR RESOLUTIONS

All applications except the following are compatible with the 27-inch widescreen (native resolution : 3840 × 2160)

- MR Wall Motion Tracking Multi Chamber
- MR Coronary Tracking
- Embolization Plan

VITREA BASE

Model Name: VLO-BASE/LO

This package is the foundation of Canon Medical Systems' advanced visualization. It includes 2D, 3D and 4D viewing with image subtraction and time intensity analysis. Post-processing tools such as whole body stitching and vascular analysis are available along with basic export and reporting.

Base Features

- Study List
  - Sortable and filterable listing of all studies
  - Customizable study list
  - Series thumbnail display indicates available series
  - Creation of user specific worklist filters to optimize data searching/selection for users
  - Interactive thumbnails for quick study/series preview
  - Launch directly into 2D or 3D workflow for a study or series
  - Intelligent Application Launcher automatically selects the data that matches the desired application
  - Results tab with viewable findings, exporting, deletion and report review
- Report Editor
  - Slide Tray containing snapshots, batches and movies saved in the Viewer window
  - Quick preview for snapshots, movies and batches
  - Multi-selection for direct DICOM export, adding to report page or deletion
  - Snapshot restoration
  - Report templates including protocol-based text report pages or image formats with various configurations
  - Report header that includes user configurable information
  - Ability to add comments and arrows to the images
  - Printing of the report on DICOM (on workstation only) or Postscript format printers, exporting to a DICOM image archive, posting on Vitrea software's Web server, recording on a CD or DVD, or exporting to a MS Word document.
- Data Publishing
  - Capture of key images and batches for export to PACS/EMR
  - Creation of movies for presentations
  - Export images in PNG, DICOM, and AVI format
  - Windows® and plain paper printing
  - Detailed image information retrieval from DICOM header
  - Create a CD or DVD with a viewer
- Built in user guide help available within each application
- Monitors*1
  - Supports dual monitor with the same resolution to display both of data list and application on the same screen.

*1: Not compatible with PACS Integration

Applications

- Multi Modality Viewer
- MR Stitching
- Vitrea Peripheral Vessel Probe
- Filming
- Global Illumination
- MR Vascular Analysis
- MR Abdominal Analysis
- MR Musculoskeletal
- MR Brain Tumor Analysis
- MR Breast
- CT Abdominal Analysis
- CT Circle of Willis
- CT Carotid
- CT Larynx Airway
- CT Musculoskeletal
- CT Renal
- CT Runoff Analysis
- CT Urogram
- CT Aorta Analysis
- SURE Volume Synthesis

VITREA EXTEND OPTION

Model Name: VLO-EXTO/LO

A workstation based system supplying up to three concurrent users with advanced visualization. This deployment option helps to improve patient care by reducing information delays and by providing quick access to the exams required by your clinical workflows. A centralized database and multiple access points ensure that clinicians can share work without being affected by disparate databases, different clinical tools or unfamiliar interfaces.

VITREA ENTERPRISE DEPLOYMENT

Model Name: VLO-EPD/LO

Advanced 3D visualization and analysis solution that delivers an easy-to-use suite of advanced multi-modality clinical applications and tools, which can be accessed anywhere and anytime. Enables up to two Multi Modality Viewer dedicated nodes with four users each, for a total of eight.

VITREA ADDITIONAL CONCURRENT USER OPTION

Model Name: VLO-ADDCCU/LO

Additional Concurrent User option is required per Additional user

VITREA ENTERPRISE SINGLE SERVER OPTION

Model Name: VLO-EPD/LO + VLO-AD2CCU/LO or VLO-AD5CCU/LO

This cost-effective single-server-based solution is a turn-key Vitrea Advanced Visualization deployment option for up to three or up to six concurrent users. Supports both workgroup deployments and domain deployments, including support for PACS integration when on a domain. Enterprise Single Server leverages Remote Desktop for access with RDS CALs.

VITREA XA 3D-ANGIO

Model Name: VLO-XA3D/LO

XA 3D-Angio provides visualization and analysis tools for rotational images acquired in angiography labs. 3D angiography provides enhanced 3D views of complex anatomy.

CEREBRAL ANEURYSM ANALYSIS

Model Name: VLO-CAA/LO

CAA supports cerebral aneurysm rupture risk assessment through visualization and quantification tools.

EMBOLIZATION PLAN

Model Name: VLO-EMB/LO

Embolization Plan is a dedicated software for advanced embolization it supports an efficient planning for liver tumor treatments.
It is applicable to CT volumes of CTHA and /or CTAP acquisitions and XR LCI volumes.

VITREA CT EP PLANNING

Model Name: VLO-EP/LO

CT Cardiac EP Planning automatically segments the left atrium and pulmonary veins to enable analysis and assessment which are used in procedural planning and can be exported for 3D road mapping during electro-physiology procedures.

VITREA CT ENDOVASCULAR STENT PLANNING

Model Name: VLO-EVSP/LO

CT Endovascular Stent Planning (EVSP) enables visualization and measurements of aortic vessels for evaluation, treatment and follow-up for aortic vascular disorders. It automates 3D segmentation of the aorta and initializes stent measurements, based on a template provided by stent manufacturers for a highly efficient workflow.

VITREA CT LIVER ANALYSIS

Model Name: VLO-LIVER/LO

CT Liver Analysis provides tools for segmenting and quantifying the liver and liver-related tumors. It provides automatic registration for display of multiple series, optimized screen layouts and quantification tools for routine clinical measurements, including surgical liver resection planning tools.

VITREA CT TAVR PLANNING

Model Name: VLO-TAVR/LO

CT Transcatheter Aortic Valve Replacement (TAVR) Planning provides automatic value plane recognition and semi automated measurement tools.

VITREA CT COLON ANALYSIS

Model Name: VLO-COLON/LO

CT Colon Analysis provides clinicians with the ability to perform CT colonography. It provides optimized layouts for 2D and 3D examination of the lumen, including tools for quantitative analysis of suspected polyps, showing the polyp volume, measurement and distance to rectum.

VITREA CT LUNG ANALYSIS

Model Name: VLO-LUNGNO/LO

CT Lung Analysis is the interface and semi-automated tools help to efficiently determine nodule growth over time. Assessing nodule morphology and volume, whilst offering comparison to prior imaging.

VITREA CT LUNG DENSITY ANALYSIS

Model Name: VLO-LUNGAN/LO

CT Lung Density Analysis semi-automatically segments lung tissues with quantifiable results to aid in the diagnosis of certain respiratory conditions.

VITREA CT BRAIN PERFUSION 2D WITH BAYESIAN

Model Name: VLO-2DBPEF/LO

CT Brain Perfusion 2D provides 2D visualization and perfusion mapping of CT perfusion imaging. In acute stroke cases can help physicians determine the presence of acute cerebral infarcts and aid treatment planning decisions.
Selection of Bayesian, Singular Value Decomposition (SVD) and delay-insensitive Singular Value Decomposition (SVD+) algorithms.

VITREA CT VSCORE

Model Name: VLO-VSCORE/LO

CT VScore is a calcium scoring application that allows users to visualize, measure and export a report of coronary calcification and calculate the patients calcium score using a non-contrast cardiac CT exam. Which facilitates coronary risk assessment.

VITREA CT CARDIAC ANALYSIS

Model Name: VLO-CARDI/LO

CT Cardiac Analysis enables physicians to assess coronary disease by displaying the extracted anatomy in a variety of 2D, 3D and 4D views and using a number of advanced imaging tools. Allowing the assessment of both structural heart and coronary artery disease.

VITREA CT CARDIAC FUNCTIONAL ANALYSIS

Model Name: VLO-CFA/LO

CT Cardiac Functional Analysis (CFA) utilizes 4D CT images of the heart to assist cardiologists and radiologists in assessing the function and morphology of the left ventricle. Clinicians are able to view the cardiac phases in 4D and review the quantified calculated results.

VITREA CT MULTI-CHAMBER FUNCTIONAL ANALYSIS

Model Name: VLO-MCCFA/LO

CT Multi-Chamber CFA utilizes 4D CT images of the heart to assist cardiologists and radiologists in assessing cardiac function of the all the heart's individual chambers. It allows for the full 4D visualization of a cardiac cycle. CT Multi-Chamber CFA computes functional measurements for multiple chambers, such as stroke volume, ejection fraction and cardiac output.

VITREA CT FAT MEASUREMENT

Model Name: VLO-FAT/LO

CT Fat Measurement is a noninvasive post-processing application designed to isolate and quantify subcutaneous and visceral fat. The CT Fat Measurement application calculates body fat area based on a single slice of non-contrast enhanced CT data.

VITREA CT SUREPLAQUE OPTION

Model Name: VLO-SUREP/LO

CT SUREPlaque provides the visualization and measurement of vessel walls and plaque characteristics in arterial vessels. Using color defined Hounsfield Unit (HU) ranges, plaque characteristics can be assessed. Which can assist in the stratification of patients identified to have atherosclerosis.

VITREA CT MYOCARDIAL PERFUSION

Model Name: VLO-MYOPEF/LO

CT Myocardial Perfusion enables the visualization and analysis stress and rest examinations to assess the presence of perfusion deficits in the myocardium. Semi-automated segmentation and registration compute the analysis in a streamlined workflow.

VITREA CT BRAIN PERFUSION 4D

Model Name: VLO-4DBPEF/LO

CT Brain Perfusion 4D aids with assessing the whole brain and evaluating perfusion deficits by displaying 4D-DSA (digital-subtraction angiography) views of blood flow in the vessels and 3D perfusion maps. Advanced tools such as perfusion maps supports the physician in visualizing the apparent blood perfusion in brain tissue affected by acute stroke. Selection of Bayesian, Singular Value Decomposition (SVD) and delay-insensitive Singular Value Decomposition (SVD+) algorithms.

VITREA CT BODY PERFUSION 4D

Model Name: VLO-BODYP/LO

CT Body Perfusion 4D enables whole organ functional assessment using Canon Medical Systems' Aquilion ONE family CT scanner. Parametric maps, based on the contrast flow through an organ, provide additional information to aid clinical decision-making. Views and layouts for dynamic display of images are created throughout the duration of the scan.

ICAD VERALOOK CT COLON CAD

Model Name: VLO-ICAVLK/LO

VeraLook CT Colon CAD from iCAD uses sophisticated image processing software to automatically identify polyps in CTC images.

MEVIS VISIA CT LUNG CAD

Model Name: VLO-MEVLCA/LO

Visia CT Lung by MeVis Medical Solutions is a computer-aided detection (CAD)system for chest multi-slice CT exams. Visia automatically detects potentially actionable lung nodules from 4 mm to 30 mm in size, not just round objects or regions of interest. Sophisticated volumetric segmentation excludes normal anatomy and detects nodules based on size, shape, density and anatomical context.

CT DENTAL OPTION

Model Name: VLO-CTDENT/LO

CT Dental Analysis produces images necessary for dental treatment planning and dental implant sizing, and helps identify diseases of the teeth and oral cavity.

DYNAMIC MYOCARDIAL PERFUSION

Model Name: VLO-DMYOP/LO

CT Dynamic Myocardial Perfusion enables the quantitative assessment of dynamic stress and rest CT examinations. The application provides multiple quantitative results such as myocardial blood flow and coronary flow reserve for data sets acquired with Aquilion ONE CT.

CT RESPIRATORY ANALYSIS

Model Name: VLO-CTRESP/LO

CT Respiratory Analysis software provides an easy-to-use and intuitive user interface to analyze both 3D and 4D CT data sets to assess respiratory conditions.
3D data sets allow assessment of the area, diameter and volume of the trachea and airways. Also, lung volume and lung density can be measured, which can aid in the assessment of disease progression and treatment response. Using a 4D data set, changes within the airways over an entire breath cycle can be evaluated by visualizing the airway area, diameter, volume and percentage change.

VITREA CT DE IMAGE VIEW

Model Name: VLO-CTDEIV/LO

Vitrea CT DE Image View enables users to review and report CT Dual Energy images which are acquired using different tube voltages and/or tube currents. The application has mul-tiple functions which enable users to evaluate and charac-terize body material composition using the attenuation coefficient energy dependence of different materials.

Note: Vitrea CT DE Image View only supports Canon Dual Energy datasets.

MIRADA ONCOLOGY FUSION ADVANCED

Model Name: VLO-OFUADV/LO

Oncology Fusion Advanced is an integrated multiple modality software application for the evaluation of oncologic disease. It combines the abilities of CT, MR, PET and SPECT imaging into a single viewer on enterprise platform.
This includes following features.

- Quantitative PET measurements (SUV, Mean, Max)
- SPECT measurements
- Follow-up scan comparison
- Snapshots
- Support for 4D (gated) multi-time point data
- Support for multi-sequence, multiple time point MR
- Support for multi-phase, multiple time point CT
- Automatic alignment of studies using deformable registration
- Three-way fused views
- Advanced modality optimized deformable image registration
- Save session: State, bookmarks, VOIs and rulers to PACS
- Derive ruler from VOI
- MR/PET/CT review
- Distribute findings (report)
- RECIST, WHO, and PERCIST measurements
- CT Segmentation Tool

MIRADA ONCOLOGY FUSION STANDARD

Model Name: VLO-OFUSTD/LO

Oncology Fusion Standard is an integrated multiple modality software application for the evaluation of oncologic disease. It combines the abilities of CT, MR, PET and SPECT imaging into a single viewer on enterprise platform.
This includes following features.

- Quantitative PET measurements (SUV, Mean, Max)
- SPECT measurements
- Follow-up scan comparison
- Snapshots
- Automatic alignment of studies using deformable registration
- Save session: State, bookmarks, VOIs and rulers to PACS
- Derive ruler from VOI
- Distribute findings (report)
- RECIST, WHO, and PERCIST measurements

MIRADA ONCOLOGY FUSION CORE

Model Name: VLO-OFUCO/LO

Oncology Fusion Core is an integrated multiple modality software application for the evaluation of oncologic disease. It combines the abilities of CT, MR, PET and SPECT imaging into a single viewer on enterprise platform.
This includes following features.

- Quantitative PET measurements (SUV, Mean, Max)
- Follow-up scan comparison
- Snapshots

VITREA IMAGE DENOISING

Model Name: VLO-DENOIS/LO

Image Denoising is a software-based, post-processing filter designed to be used in conjunction with original image data. It assists clinicians in the enhancement of CT and 3D-XA image presentation by enabling pixel noise reduction while preserving edge detail, spatial size and 3D structure within the original images. Image Denoising is accomplished by using Structure Preserving Diffusion Algorithm (SPD).