



Product Data
No. MPDHI0019EAD

Vitrea for Ultrasound (v7.14)

(European edition)

APPLICATION

Vitrea software is an advanced visualization system providing comprehensive applications.

APPLICABLE COMBINATIONS

The clinical solutions are applicable to the following systems:

- Canon Medical Systems Ultrasound system

Supported Ultrasound models

Aplio i900, Aplio i800, Aplio i700, Aplio i600
Aplio a550, Aplio a450, Aplio a

Ultrasound models with post processing limitations*

Aplio 500/400/300 and Artida

* Following are the post processing limitations per system and application.

Feature	Artida	Aplio 500/400/300
US 2D Wall Motion Tracking	✓	✓
US 3D Wall Motion Tracking	✓	N/A
US 3D Wall Motion Tracking Advance (RV)	✓	N/A
US Quad Chamber Tracking	✓	N/A
US Shadow Glass with Volume Matrix	✓	N/A
US Stress Echo	✓	N/A
US SI-DI	✓	✓
US Cardiac Fusion	✓	N/A
US Anatomical Polar Map	✓	N/A

* Results of 2D, 3D Wall Motion Tracking post processing cannot be sent back the following systems - Aplio 500/400/300 and Artida.

* Resume data which was processed on Aplio 500/400/300 and Artida won't resume on Vitrea.

* Data acquired on both Artida and Aplio 500/400/300 is solely compatible with the features listed in the table above.

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

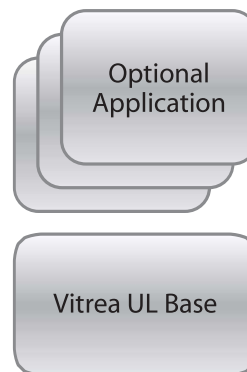
- Controlled user access

HARDWARE CONFIGURATION

Please refer to the latest version of Vitrea Advanced Visualization Technical Specifications document.

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SOFTWARE CONFIGURATION



SUPPORTED MONITOR RESOLUTION

Vitrea UL Base only supports the native resolution:
1920 × 1200

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APPLICATIONS

Application	Deployment Option
	Workstation
US Aplio i series Base	✓
Vitrea CT Cardiac Analysis	✓
US 2D Wall Motion Tracking	✓
US SI-DI	✓
US 2DWMT Fetal	✓
US 3D Wall Motion Tracking	✓
US 3D Wall Motion Tracking (RV)	✓
US Quad Chamber Tracking	✓
US Mitral Valve Analysis	✓
US Shadow Glass with Volume Matrix	✓
US Stress Echo	✓
US MPI Measurement	✓
US Cardiac Fusion*1	✓
US Anatomical Polar Map	✓
US AVA	✓
US CHI-Q	✓
US Fitting Curve	✓
US Contrast Vector Imaging	✓
US Shearwave Dispersion	✓
US Multi Parametric Report	✓
US Elastography-FLR	✓
US 4D	✓
US Doppler Luminance	✓
US Smart Fetal Heart	✓
US Luminance	✓
US Shadow Glass	✓
US FlyThru	✓
US Auto Volume Measurement	✓
US Measurement Z Score	✓

*1 Vitrea CT Cardiac Analysis is required with US Cardiac Fusion.

VITREA UL BASE

Model Name: VLO-ULBASE/LO

Vitrea UL Base is the foundation of Canon Medical Systems' advanced visualization for Ultrasound. It includes data management such as list view, exporting and importing. Each optional application can be added as 'add-on' to the base system.

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
- 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
 - Supports dual monitor with the same resolution to display study list and application on the different screen.

CT CARDIOLOGY OPTION

Vitrea CT Cardiac Analysis

Model Name: VLO-CARDI/LO

CT Cardiac Analysis enables physicians to determine the presence and extent of coronary artery disease by displaying the extracted anatomy in a variety of views. The interface and automated tools help to efficiently analyze the coronary arteries.

ULTRASOUND OPTION

US Aplio i-series Base

Model Name: VLO-USAIB/LO

US Aplio i-series Base is a software option required to support all advanced applications.

It includes Cardiac measurements, luminance for Cardiology, OB measurements, Vascular measurements and Radiology measurements. The Report function (On Board Report) offers report templates that allow users to edit it according to their preferences, such as adding comments. The created reports can be printed or exported as PDF files.

ULTRASOUND CARDIOLOGY OPTION

US 2D Wall Motion Tracking

Model Name: VLO-WTAI90/LO

US 2D Wall Motion Tracking is an automatic analysis tool for regional myocardial deformation by speckle tracking techniques.

Several kinds of parameters such as Strain, Strain Rate, Rotation are provided to help clinical assessment of LV function.

Parametric images enable you to see the regional performance of the myocardium at a glance.

Polar Map shows LV global function from 2ch, 3ch and 4ch analysis results.

The graph shows value changes throughout the cardiac cycle.

Numerical chart provides detailed information that includes peak values, mean, and SD.

US SI-DI

Model Name: VLO-SDAI9/LO

US SI-DI adds new color mapping based on Diastolic phase Strain in 2D WMT mode.

US 2DWMT Fetal

Model Name: VLO-WTAI94/LO

US 2DWMT Fetal enables cardiac wall motion analysis function for fetal heart using data from a convex transducer.

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US 3D Wall Motion Tracking

Model Name: VLO-WTAI91/LO

US 3D Wall Motion Tracking is an analysis tool to evaluate Cardiac performance based on 3D volume data combined with 3D speckle tracking techniques. High spatial resolution with more than a thousand sampling points provides accurate results for many kinds of parameters. A 3D model visualizes the actual heart morphology and wall motion as movie clip. A graph and numerical chart allow for quantitative analysis. Estimated volume, EF and LV mass are calculated from the 3D model. Analyzed data can be exported in CSV format.

US 3D Wall Motion Tracking (RV)

Model Name: VLO-WTAI92/LO

US 3D Wall Motion Tracking (RV) is an analysis tool to assess the Right Ventricle (RV) function based on volume data. A 3D RV model provides an intuitive visualization to help understand the complexity of the RV structure. The RV wall is divided into 7 segments of which each result is clearly displayed by Polar Map.

US Quad Chamber Tracking

Model Name: VLO-QCTAI9/LO

US Quad Chamber Tracking is a quad display for 3D Wall Motion Tracking results.

US Mitral Valve Analysis

Model Name: VLO-MAAI9/LO

US Mitral Valve Analysis is an advanced tool for quantitative analysis of mitral valve anatomy based on volume data acquired by the 3D Transesophageal transducer. A quad display offers reconstructed images of three different cross sections and a 3D image that includes an intuitive color coded model of the mitral valve. Provides detailed measurements of the mitral valve and associated structures for surgical planning. A mitral valve model visualizes the shape of the valve leaflets which helps to assess prolapse or tenting.

US AVA (Aortic Valve Analysis)

Model Name: VLO-AVAI9/LO

The 3D aortic valve acquired with a compatible ultrasound diagnostic system is extracted semi-automatically and the dimension of the aortic valve complex is assessed with a 3D model.

US Shadow Glass with Volume Matrix

Model Name: VLO-LMAI91/LO

US Shadow Glass with Volume Matrix applies semi-transparent glass effect to visualize volume data acquired by a Volume Matrix transducer and provides a new way to observe the heart structure in 3D.

US Stress Echo

Model Name: VLO-SEAI9/LO

US Stress Echo Data Viewer
Same views from different phases can be shown in one screen to compare changes in wall motion.
Scoring and Report
Apply a score to each segment according to the assessment of wall motion. The result is shown in a schema for each view and in a polar map.

US MPI Measurement

Model Name: VLO-AI600A/LO

US MPI Measurement enables Myocardial Performance Index (MPI).
The MPI value can be calculated from the time change curve in TDI.

US Cardiac Fusion

Model Name: VLO-CF01/LO

US Cardiac Fusion is a unique tool to merge Coronary CT images showing accurate coronary anatomy and Ultrasound 3D Wall Motion Tracking, simultaneously displaying the cardiac wall morphology, function and coronary anatomy. Automatic synchronization to match the position of Coronary CT and Ultrasound volume images. Superimposes coronary 3D image and 3D LV parametric model to offer accurate assessment of the coronary artery disease. Coronary vessels projected on to the wall motion polar maps. Fusion views for direct comparison (current and prior, stress and rest, etc)

US Anatomical Polar Map

Model Name: VLO-PM01/LO

US Anatomical Polar Map provides a polar map which shows the approximate perfusion territory of each coronary artery based on CT coronary artery analysis results. This is one of the "Cardiac Fusion" functions.

ULTRASOUND RADIOLOGY OPTION

US CHI-Q

Model Name: VLO-CQAI9/LO

US CHI-Q adds the Time Curve Analysis (TCA) function to the system.

US Fitting Curve

Model Name: VLO-CQAI91/LO

US Fitting Curve is a function to calculate characteristic value parameters.

US Contrast Vector Imaging

Model Name: VLO-VFAI9/LO

US Contrast Vector Imaging enables the visualization and analysis of the Direction/Velocity of bubbles by tracking individual contrast bubbles and displays the resultant parameters with different colors.

US Shearwave Dispersion

Model Name: VLO-AI900A/LO

US Shearwave Dispersion enables visualization of dispersion between frequencies for propagation speed for Shear Wave.

US Multi Parametric Report

Model Name: VLO-DLAI9/LO

US Multi Parametric Report provides a combined report for the following liver applications: Shear Wave, Elastography, Dispersion Imaging and Attenuation Imaging.

US Elastography-FLR

Model Name: VLO-ELAI91/LO

US Elastography enables Elastography (with FLR measurement) with linear and convex transducers.

US 4D

Model Name: VLO-MVAI9/LO

US 4D is required for using the 4D transducer or the motor-driven TEE transducer.

US Doppler Luminance

Model Name: VLO-LDAI9/LO

US Doppler Luminance allows display of the pseudo color doppler in three dimensions.

US Smart Fetal Heart

Model Name: VLO-FPAI9/LO

US Smart Fetal Heart enables the automatic generation of standard fetal heart views from 4 chamber volume data set.

ULTRASOUND WOMEN'S HEALTHCARE OPTION

US Luminance

Model Name: VLO-LMAI9/LO

US Luminance is an advanced image processing technology that facilitates a more realistic appearance of 3D/4D images of fetuses and anatomical structures.

US Shadow Glass

Model Name: VLO-SGAI9/LO

US Shadow Glass is a tool to observe both superficial and deep structures in a specific region by superimposing them. Combined with the capability to show a simultaneous display with a color 4D image showing internal blood flow (CDI and SMI).

US FlyThru

Model Name: VLO-FTAI9/LO

US FlyThru enables 3D fly-through for displaying the internal walls of hollow organs and structures from endoluminal viewpoints, as viewed using an endoscope.

US Auto Volume Measurement

Model Name: VLO-OBAI9/LO

US Auto Volume Measurement is used for calculation of the volume by extracting the contours for regions with lower brightness in the 3D Volume image acquired in 4D mode. Enables volume measurements, e.g., antral follicle count.

US Measurement Z Score

Model Name: VLO-ZSAI9/LO

US Measurement Z Score enables Z-score analysis which shows fetal heart growth for the measurement results.

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