



## Comprehensive CT/MR Insight

Advanced Visualization Clinical Applications



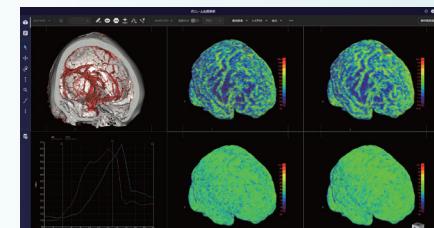
GOOD  
DESIGN  
AWARD



Advanced clinical applications spanning a broad range of anatomy and physiology across multiple specialties, on a vendor-neutral platform.



#### CT Application Volume Perfusion Analysis



Analyzes blood flow of the brain or abdomen using volumetric data scanned over time. Multiple perfusion maps are available, including BF, BV, TTP and MTT.

#### CT Application CT Perfusion Analysis



Analyzes blood flow of the brain or abdomen using data scanned at the same cross-section over time. Multiple perfusion maps are available, including BF, BV, TTP and MTT.



Head



Dental



Thoracic



Abdominal



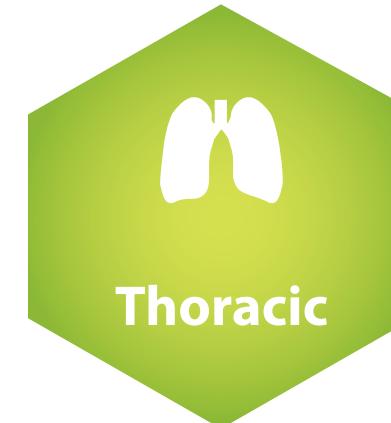
Extremity /Spine



Cardiac

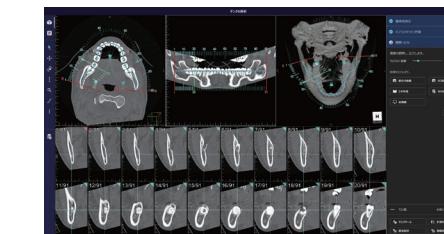


Dental



Thoracic

#### CT Application Dental Viewer



Displays panoramic and cross-cut images generated by curved MPR from CT images.

#### CT Application Bronchus Analysis



Automatically extracts the bronchi from CT data. The bronchus centerline can be created by one click. Wall thickness and other measurements are available for quantitative assessment of the bronchi.

#### CT Application Lesion Analysis



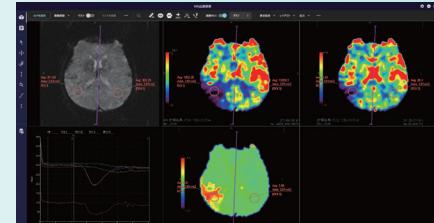
Extracts lung lesions and measures their volumes and diameters. Changes in the lesion over time can be observed.

#### CT Application Virtual Bronchoscopy



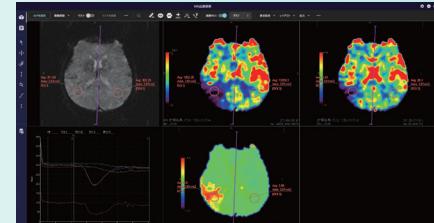
Using chest CT data, this protocol extracts the bronchi, and creates and navigates a virtual bronchoscopic pathway.

#### MR Application MR Tractography



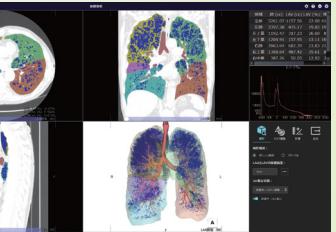
Displays fiber tracking from DTI (diffusion tensor imaging) data. Nerve fibers can also be fused with CT and other MR images.

#### MR Application MR Brain Perfusion Analysis



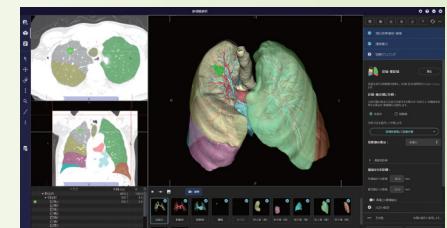
Analyzes blood flow of the brain using data scanned at the same cross-section over time. Multiple perfusion maps are available, including BF, BV, TTP and MTT.

#### CT Application Pulmonary Analysis



Automatically extracts bronchi, lung fields and lung lobes from CT chest data. Low attenuation area and volume can be measured, and the Goddard Score can be calculated.

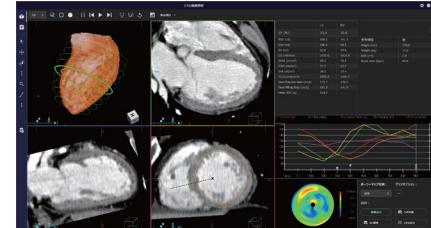
#### CT Application Lung Resection Planning



Automatically extracts the bronchi, lung lobes, PA, PV from contrast or non-contrast CT chest data, and shows their positions with lesions. The area to be resected can be simulated.

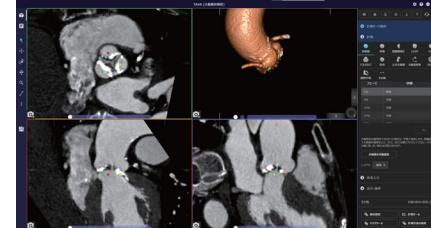


### CT Application CT Cardiac Function



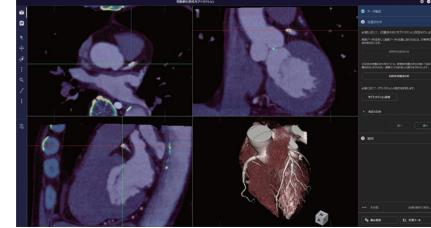
Automatically extracts the myocardial contours of the LV and endocardial contours of the RV. Calculations include ejection fraction and LV wall thickness.

### CT Application TAVR (Aortic Valve)



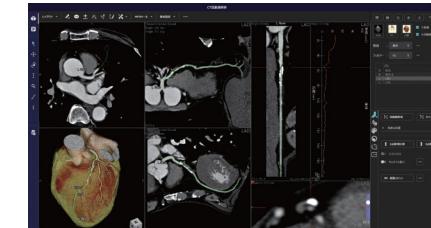
Measures the aortic valve for TAVR planning.

### CT Application Coronary Calcium Subtraction



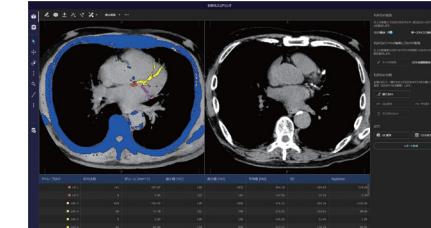
Subtracts pre- and post-contrast CT images of coronary arteries and shows the results in VR and MIP.

### CT Application CT Coronary Analysis



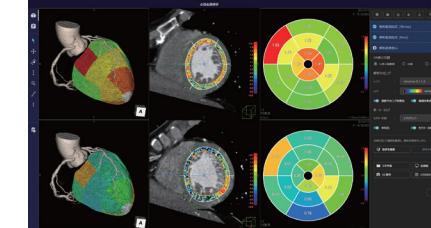
Automatically extracts and labels the coronaries and displays in CPR, straight view and short axis view. Vessel stenosis and plaque can be measured.

### CT Application Calcium Scoring



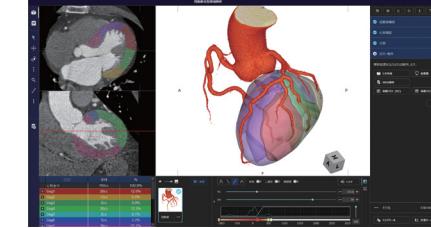
Using non-contrast CT, coronary artery calcification is automatically scored and labeled. Agatston scores, volume scores, and voxel counts are calculated.

### CT Application Myocardial Perfusion Analysis



Assessment of LV myocardial blood flow as transmural perfusion ratio can be done using contrast-enhanced CT data at stress and at rest.

### CT Application Coronary Territories



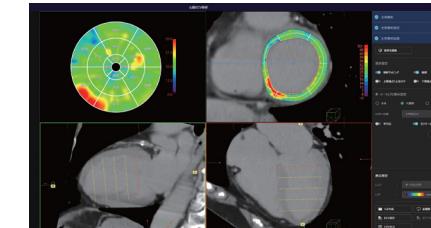
Segments the coronaries and myocardium using contrast enhanced CT images and provides volumes of myocardium segments.

### CT Application Post-CABG Analysis



Automatically extracts and labels the coronary artery bypass vessel and displays in CPR, straight view and short axis view.

### CT Application Myocardial ECV Analysis



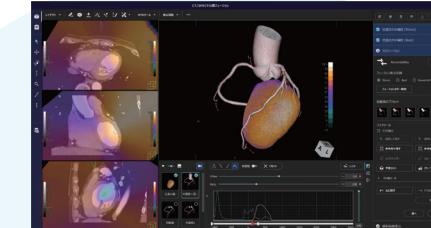
Extracellular volume fraction (ECV) is calculated and mapped using hematocrit values from non-contrast and delayed images or iodine maps.

### CT Application EP Planning



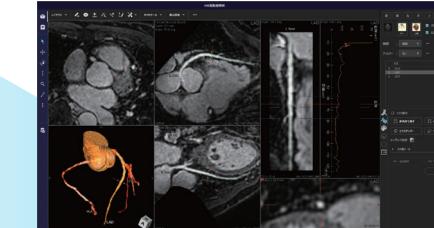
Automatically extracts the LA, PV, coronary sinus and arteries, and esophagus from contrast CT images. VR, VE views and measurement of PV are available.

### CT Application CT/SPECT Cardiac Fusion



Displays fusion of SPECT and CT images. Reversibility and washout rate are automatically calculated and mapped in Stress and Rest.

### MR Application MR Coronary Analysis



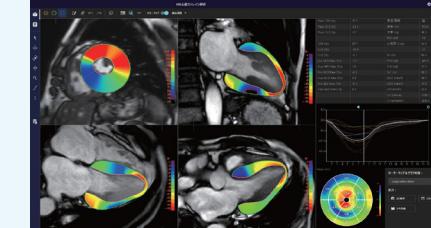
Automatically extracts and labels the coronaries and displays in CPR, straight view and short axis view.

### CT Application MR Cardiac Function



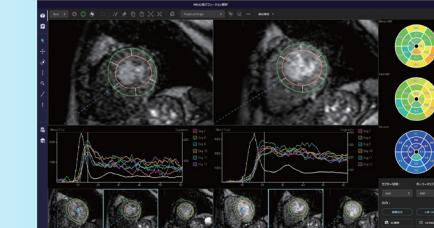
Automatically extracts the myocardial contours of the LV, and calculates ejection fraction, wall thickness, wall thickness ratio and regional wall motion. RV ejection fraction is available.

### MR Application MR Myocardial Strain Analysis



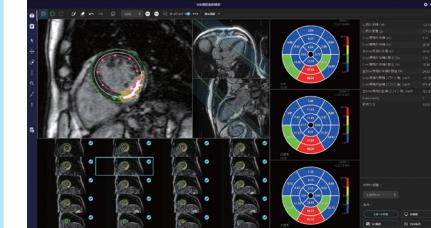
Measures myocardial strain from automatically extracted LV myocardial contours from multi-phase cine MR heart data. Color maps, graphs and polar maps can be displayed.

### MR Application MR Myo. Perfusion Analysis



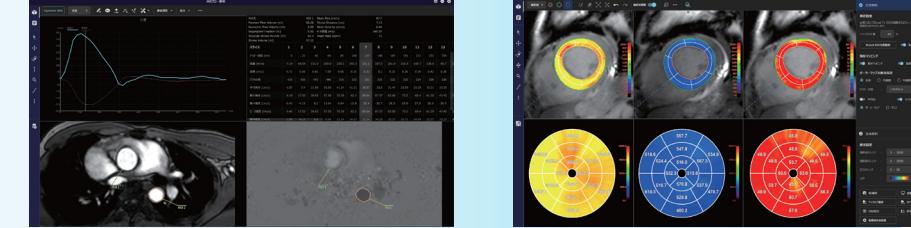
Allows for quantitative assessment of myocardial ischemic area from perfusion data. The myocardial contours of the LV are automatically extracted.

### MR Application MR LGE Analysis



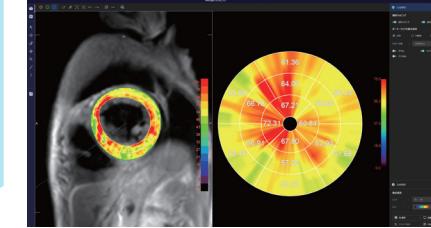
Displays the location and extend of high signal areas from delayed contrast enhanced images. Enables assessment of regional myocardial viability with a polar map.

### MR Application MR Myocardial T1 Mapping



Measures and maps T1 values from cardiac MR data with TI changes over time. Polar map of ECV is also available using pre- and post-contrast data.

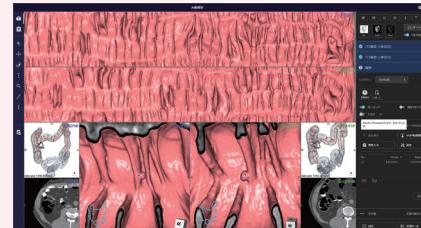
### MR Application MR Myocardial T2 Mapping



Measures and maps T2 values from data acquired at several different TEs. The T2 values for the whole, endocardium, and epicardium are displayed as polar maps.

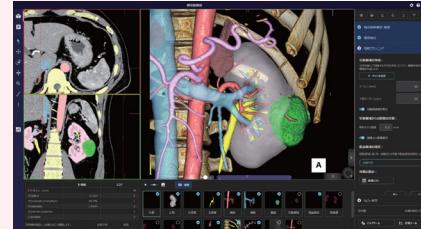


**CT Application**  
Colon Analysis



Automatically extracts colon centerline, shows filet and virtual endoscopic views. Supports dual positions, digital cleansing, auto measurements.

**CT Application**  
Nephrectomy Planning



Automatically extracts the kidneys, arteries, veins and ureters, enabling 3D representation of tumor-vessel positioning and anatomy and resection simulation.

**CT Application**  
Fat Measurement



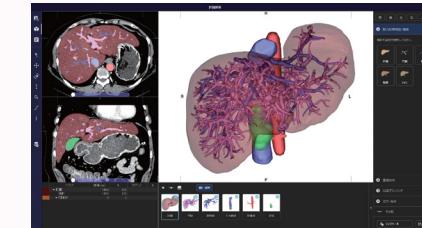
Measures distribution and area of subcutaneous and visceral fat and abdominal circumference.

**MR Application**  
Tx Mapping



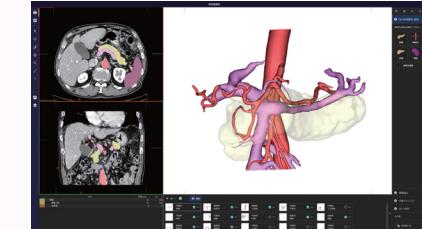
Measures T2, T2\*, or T1p values of the specified ROI and shows color maps.

**CT Application**  
Liver Analysis



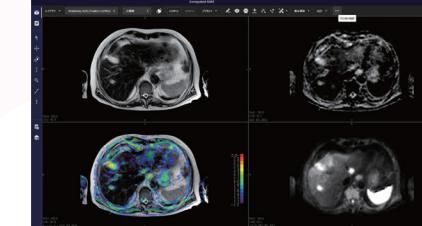
Supports liver resection planning. Features include non-rigid registration, auto extraction of liver vasculature, and volume measurements.

**CT Application**  
Pancreas Resection Planning



Automatically extracts the pancreas and its vasculature. Resection simulation and measurement of remnant pancreas volume are possible.

**MR Application**  
Computed DWI



Create ADC maps, and computed DWI images with the desired b-value from two sets of DWI images with different b-values.

**CT Application**  
Spine MPR Batch



Creates a series of sequential images of the vertebrae and intervertebral space, or along the curve of the spine. Auto-labeling of the vertebra is supported.

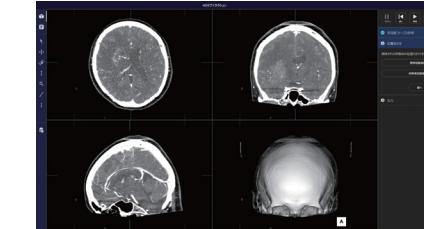


**CT Application**  
Dual kV



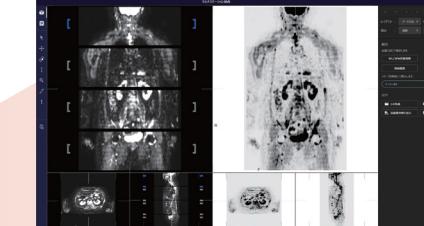
Generates blended, subtraction and virtual non-contrast (VNC) images using CT data of different tube voltages.

**CT Application**  
4D Subtraction



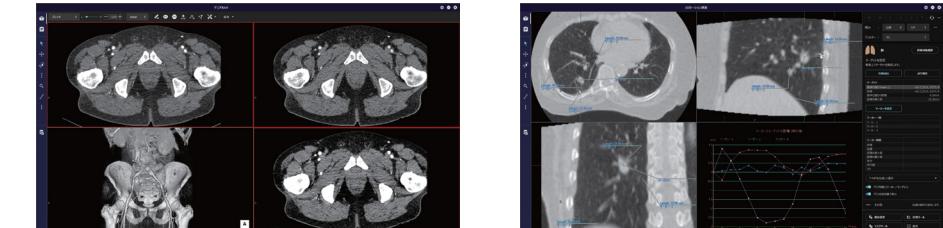
From contrast-enhanced CT volume data taken over time, a series of bones, etc. designated as plain data are subtracted using non-rigid registration.

**MR Application**  
MR Combination



Enables opening multiple MR series of the same sequence captured at different positions to observe, combine, and save into one series.

**CT Application**  
IG Motion Measurement



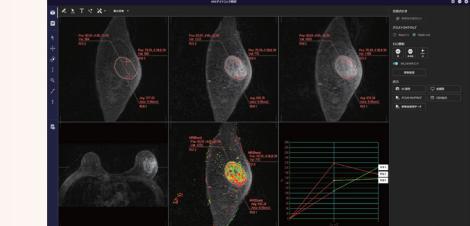
Using dynamic CT chest or abdomen data scanned under natural breathing, track and measure a marker which suggests the position of a lesion.

**CT Application**  
IVR Planning



Shows the outline of large vessels from contrast CT images and displays position on a virtual fluoro image. Simulating probe position in drainage is also available.

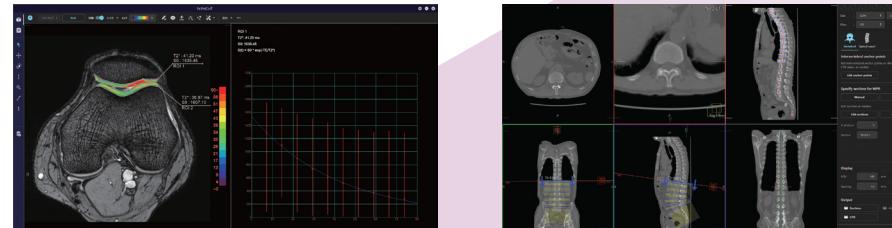
**MR Application**  
Multiparametric MR Analysis



Using contrasted dynamic MR images of regions such as breast gland or prostate, this protocol displays parametric maps calculated from changes in signal values.



**MR Application**  
Spine MPR Batch



Creates a series of sequential images of the vertebrae and intervertebral space, or along the curve of the spine. Auto-labeling of the vertebra is supported.

## CT Applications

## MR Applications

Head	<input type="checkbox"/> Volume Perfusion Analysis <input type="checkbox"/> CT Perfusion Analysis	<input type="checkbox"/> MR Tractography <input type="checkbox"/> MR Brain Perfusion Analysis	
Dental	<input type="checkbox"/> Dental Viewer		
Thoracic	<input type="checkbox"/> Bronchus Analysis <input type="checkbox"/> Pulmonary Analysis <input type="checkbox"/> Lesion Analysis	<input type="checkbox"/> Lung Resection Planning <input type="checkbox"/> Virtual Bronchoscopy	
Cardiac	<input type="checkbox"/> CT Coronary Analysis <input type="checkbox"/> Post-CABG Analysis <input type="checkbox"/> CT Cardiac Function <input type="checkbox"/> Calcium Scoring <input type="checkbox"/> TAVR (Approach) <input type="checkbox"/> TAVR (Aortic Valve) <input type="checkbox"/> CT Myocardial Perfusion <input type="checkbox"/> CT Myocardial Dynamic Perfusion	<input type="checkbox"/> Coronary Calcium Subtraction <input type="checkbox"/> Coronary Territories <input type="checkbox"/> CT Myocardial Delayed Enhancement <input type="checkbox"/> CT Myocardial ECV <input type="checkbox"/> EP Planning <input type="checkbox"/> CT/SPECT Cardiac Fusion	<input type="checkbox"/> MR Coronary Analysis <input type="checkbox"/> MR Cardiac Function <input type="checkbox"/> MR Myocardial Strain Analysis <input type="checkbox"/> MR Myocardial Perfusion <input type="checkbox"/> MR LGE Analysis <input type="checkbox"/> MR Flow <input type="checkbox"/> MR Myocardial T1 Mapping <input type="checkbox"/> MR Myocardial T2 Mapping
Abdominal	<input type="checkbox"/> Colon Analysis <input type="checkbox"/> Fat Measurement <input type="checkbox"/> Liver Analysis	<input type="checkbox"/> Nephrectomy Planning <input type="checkbox"/> Pancreas Resection Planning	<input type="checkbox"/> Computed DWI
Extremity /Spine	<input type="checkbox"/> Spine MPR Batch		<input type="checkbox"/> Tx Mapping
All-around	<input type="checkbox"/> Dual kV <input type="checkbox"/> IG Motion Measurement	<input type="checkbox"/> 4D Subtraction <input type="checkbox"/> IVR Planning	<input type="checkbox"/> MR Combination <input type="checkbox"/> Multiparametric MR Analysis
	<b>Multi-modality</b> <input type="checkbox"/> 3D Standard <input type="checkbox"/> 4D Viewer	<input type="checkbox"/> Cine Viewer <input type="checkbox"/> Fusion Viewer <input type="checkbox"/> Slab MIP <input type="checkbox"/> Subtraction	

Check with your Ziosoft representative for those functions approved for sale in your respective market.



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