



ORIGINAL - LEFT CORONARY ARTERY (30% DOSE REDUCTION)



PROCESSED WITH GOPVIEW iRV^{ULTRA}

QUICK FACTS

Diagnostic image equivalency at 40% reduced dose

Ability to visualize subtle pathology, vessel edges and stent walls in real time

Adaptive temporal filtering for optimal noise reduction without temporal blurring

Efficient noise suppression with sharpened edges, lines and improved contrast

LOWER DOSES WITH REAL TIME ADAPTIVE IMAGE ENHANCEMENT FOR INTERVENTIONAL RADIOLOGY



GOView iRV^{Ultra} represents a new model of interventional radiology image enhancement allowing for superior image quality and diagnostic image equivalency at lower doses. The ContextVision GOP® algorithm with interventional radiology-specific requirements, combined with certified hardware, offers real time image enhancement and dose reduction.

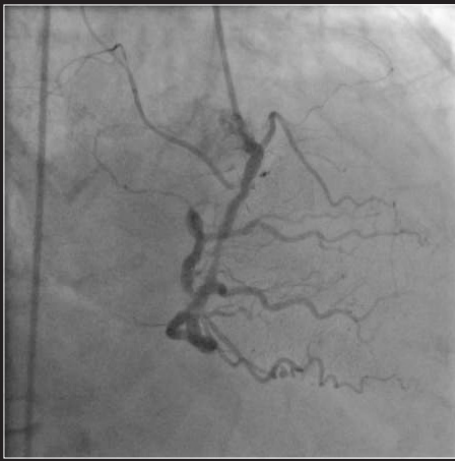
ContextVision's new image enhancement software is detector and generator independent, and easily integrated into modern software-based systems. When used with an optimized GPU (Graphics Processing Unit) board, it is capable of 1kx1k real time performance (over 30 fps). GOView iRV^{Ultra} works with all interventional radiology systems.

The GOP algorithm is adaptive and mimics the human visual system in its method of finding information and analyzing structures, enabling it to distinguish between true and false information (e.g. noise, artifacts). Knowing that true structures are identified

accurately, filtering and enhancement can confidently be applied to each pixel. This contextual information is then combined with the new ContextVision adaptive temporal filtering with advanced motion control, which allows customized enhancement during different kinds of interventional procedures without any temporal blurring.

ContextVision offers interventional radiology equipment manufacturers the possibility of combining real time advanced image enhancement with dose reduction, regardless of which detector solutions they are using. GOView iRV^{Ultra} provides reliable

improvement in clinical value by sharpening diagnostically significant structures, such as vessel walls, catheter tips and stent edges, while simultaneously suppressing noise and significantly lowering the overall X-ray dose needed.



ORIGINAL



PROCESSED WITH GOPVIEW iRV^{Ultra}

LEFT CORONARY ARTERY

An image taken with a dose 30% lower than standard (shown on the left) can be enhanced with GOPView iRV^{Ultra}, which sharpens edges and reduces noise, leading to vessel and small detail enhancement. Notice the arterial tree detail and smaller vessel clarity.

GOPView[®] iRV^{Ultra} SPECIFICATIONS

ContextVision's new image enhancement software is detector and generator independent and easily integrated into modern software-based systems.

Software Development Kit

GOPView iRV^{Ultra} includes a dynamic linkable CVIE library (a .dll or .so and a .h file), a console example program with source code, a license setup program, and Application Programming Interface (API) documentation. Available on PC with Windows XP, Vista, Windows 7 or Linux.

Operation

The operation runs on images from memory to memory. A mask of any shape or form can be used to define the processing area. No user interface component is included. GOPView iRV^{Ultra} is user interface independent.

Parameter Adjustments

The operation can be customized with parameter files according to different usage scenarios. Parameters are read from files. Each parameter file contains

several settings from which the application can select. ContextVision's professional medical imaging engineers provide support for tuning these parameters.

Data Formats

Up to 16 bit monochrome pixel data for both image and mask. Image sizes of up to 1024×1024 pixels can be processed in real time using the recommended GPU board.

Performance

With the certified GPU boards, achievable performance is at least 30 frames per second on 1024×1024×2 byte images.

Licensing

SafeNet Sentinel SuperPro USB Dongle and/or Hardware Identification.

Technology Base

ContextVision's proprietary adaptive algorithms are based on the GOP technology. All algorithm implementations are optimized for quality and speed without introducing any artifacts.

NOTE

ContextVision's quality management system is certified as conforming to the requirements of SS-EN ISO 13485:2003.

Since 1983, ContextVision has been a leading provider of image enhancement software to the global medical imaging industry, with the versatile GOP[®] technology at the core of all our imaging solutions. We play a key role in helping manufacturers by offering clinicians unparalleled diagnostic image quality, ultimately providing patients with better care. ContextVision continues to offer the latest software and expertise within ultrasound, x-ray, magnetic resonance imaging, mammography, fluoroscopy and computed tomography. Our groundbreaking technology and lengthy expertise have granted us a pioneer position within 2D/3D/4D image enhancement across multiple modalities.

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