

Introducing Artis **zee** for cardiac procedures.

There's so much more to zee.

**SIEMENS** 

# zee more, do more.

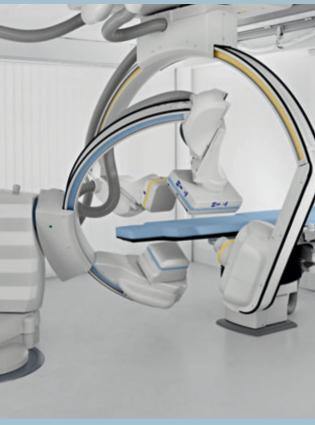
The field of interventional cardiology has never been more demanding. To enhance patient outcomes and remain on the cutting edge, you need an imaging system that enables you to care with greater speed, efficiency, and precision.

The answer is Artis **zee**®, a major advance in interventional imaging that supports you in three critical ways. Its innovative new Artis **zee** imaging chain offers outstanding image quality, so you can make better clinical decisions. Its workflow enhancements help your clinical team function more efficiently. And it's an investment you can make with confidence, backed by the industry's most comprehensive customer care program, Life. Life continuously develops your skills, productivity, and technology.

In an increasingly competitive healthcare marketplace, Artis **zee** gives you the versatility and advanced capabilities you need to deliver enhanced, faster and more effective care.



The Artis **zee** biplane system with two small detectors (20  $\times$  20) enables biplane acquisition with up to 60f/s.



The Artis **zee** biplane system with mixed detectors ( $20 \times 20$  and  $30 \times 40$ ) provides increased coverage ideally suited for imaging structural heart diseases.



The Artis **zee** ceiling-mounted system features a  $20 \times 20$  or  $30 \times 40$  flat detector and enables flexible positioning around the patient.



The Artis **zee** floor-mounted system features a 20  $\times$  20 or 30  $\times$  40 flat detector and enables easy patient acces s.



Artis **zeego**\* is the revolutionary multi-axis system that literally bends to your will. Its unrivaled flexibility makes it ideal for virtually all cardiovascular procedures in cath labs and hybrid rooms.



The Artis **zee** floor-mounted with magnetic navigation offers excellent precision in guidewire and catheter steering (also available as biplane solution).

The Artis zee family includes a full range of configurations to meet virtually any interventional imaging need.



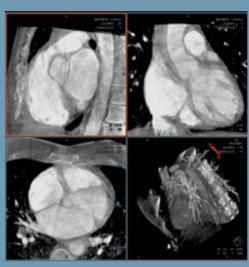
Artis zeego\*, part of the new Artis zee family is a revolutionary, multi-axis imaging system for cardiovascular procedures. It offers a variable working height and enables large volume 3D imaging. Artis zeego® can be positioned with greater flexibility and precision than a conventional system, making it an ideal solution for hybrid rooms.

<sup>\*</sup>Pending 510(k). The information about this product is being provided for planning purposes. The product is pending 510(k) review, and is not yet commercially available in the U.S.

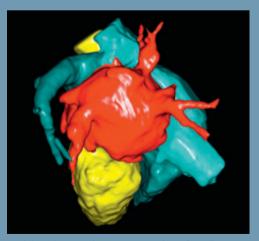
# Take a good look.

## Enhanced precision with 3D imaging.

CT-like imaging with syngo® DynaCT Cardiac. Using rotational angiography and special reconstruction algorithms, syngo DynaCT Cardiac creates CT-like 3D and 4D images of the beating heart right in the cath lab to support procedure planning. syngo DynaCT Cardiac also reduces costs by minimizing the need for pre-procedural CT or MR imaging.



Intra-procedural 3D visualizations with  $syngo^{TM}$  DynaCT Cardiac.

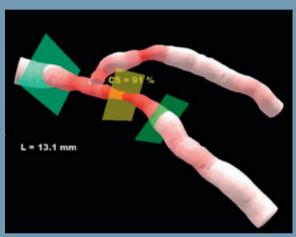


Quick and convenient segmentation of cardiac structures with *syngo* InSpace EP.

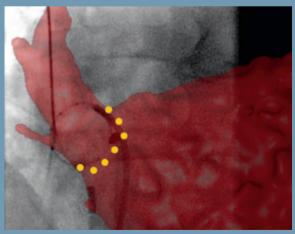
Automatic surface extraction with syngo InSpaceEP. syngo InSpace EP optimizes your EP workflow and supports the planning of ablation procedures. By integrating pre-procedural cardiac CT/MR images or intra-procedural syngo DynaCT Cardiac images, the result is a quick and convenient segmentation of the cardiac chambers. The 3D segmentation image is displayed in the examination room and can be rotated or explored via an endoscopic view.

The Artis zee imaging chain offers a range of key advances that enhance both 2D and 3D imaging and enable faster, and more precise procedures.

Accurate lesion measurement with syngo IC3D. Using two projections, syngo IC3D generates a 3D model of a vessel that can be rotated freely in space with no foreshortening effects, enabling you to precisely assess a lesion's diameter profile and the degree of stenosis. It also enables accurate measurement of lesion length to simplify stent selection.



Confident quantification of lesion in 3D with syngo IC3D.



2D/3D overlay for improved orientation of devices with *syngo* iPilot.

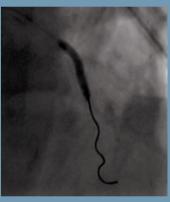
Effective guidance with syngo iPilot. syngo iPilot. syngo iPilot enables the overlay of 3D segmentation results and live fluoroscopy. The fusion of 2D and 3D information improves catheter guidance during ablations of atrial fibrillations and other complex interventions.

### Improved visualization in low dose imaging.

Advanced temporal filtration uses an intelligent motion detection algorithm that is capable of separating moving from non-moving objects in the fluoroscopic image. The non-moving objects can be integrated from image to image thus reducing the noise level significantly. The result is a sharp image with a significantly reduced noise level.



Fluoroscopy image with conventional temporal filtration.



Fluoroscopy image with advanced temporal filtration.

**Enhanced Clarity.** Artis **zee's** new imaging chain enables a new real-time processing algorithm that improves cardiac image quality significantly, even under difficult circumstances such as steep angulations and/or obese patients. It is based on a real-time image content analysis and application of automatically optimized filter parameters. The result is images with reduced noise, clearly defined vessel edges, and better contrast.

## Enhanced imaging with reduced radiation exposure

We CARE about dose reduction. Our CARE (Combined Applications to Reduce Radiation Exposure) package reduces the radiation dose for patients and the clinical team, while still providing high image quality and diagnostic confidence:

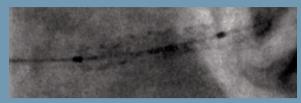
- CAREVISION provides pulsed fluoroscopy during lengthy examinations to reduce radiation dose.
- CAREPROFILE enables the radiation-free positioning of all collimators and filters for further dose reduction.
- CAREPOSITION enables you to reposition the patient under visual control without radiation.
- CAREFILTER is a specially designed copper prefiltration system that automatically adjusts the filter to the patient's anatomy.



Left coronary artery without image processing.



Same image as above with advanced noise reduction and edge enhancement.

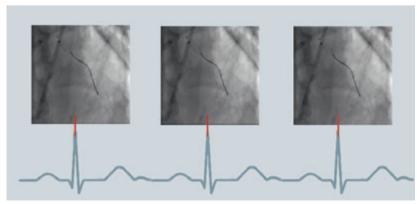


Control of device deployment without IC Stent.



Same image as above with IC Stent.

IC Stent\*: A deployed stent is sometimes hard to see which makes it difficult for the physician to judge proper outcome of the procedure. IC Stent is a processing package that enhances the visibility of the deployed stent. All it requires is the simple push of a button at tableside. Everything else is fully automatic. The result is available in less than 30 seconds. IC Stent is simple and easy to use and helps to improve the long-term success of the interventional procedure.



ECG triggered fluoroscopy sequence showing guidewire positioning.

ECG-triggered pulsed fluoroscopy virtually freezes the motion of the heart by using the patient's ECG to trigger the image acquisition at the same point in the heart cycle. By reducing the pulse rate to one pulse per heart cycle, ECG-triggered fluoroscopy reduces the overall x-ray dose. Ideal for ablations and other long-lasting fluoroscopy procedures.

# Don't work harder than you have to.

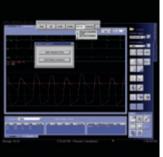
As demand for interventional procedures increases, so does the need for your clinical team to function more efficiently. Artis zee meets the challenge with new, ergonomically designed controls that streamline workflow through every phase of care delivery.



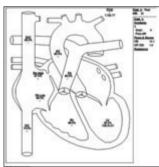
The new Artis **zee** slimline tableside control panel\* features easy-to-read *syngo* icons that are faster to use. The system data display enables a new menu-driven workflow for faster acquisition of 3D images.



The new mouse-like control\* is easier to operate and can be positioned on the right or left-hand side to maximize operator comfort.



Artis zee features the AXIOM Sensis XP recording system, the first completely integrated recording system to combine both electrophysiology, hemodynamics, and reporting in one unit that can be operated by unique workflow support programs.



AXIOM Sensis XP offers convenient database management, automated report generation, and seamless integration with the hospital information system.



## Smooth operator.



Healthcare providers have recognized the benefits of performing both minimally invasive surgical procedures and traditional cardiac angiographic procedures in the same room. Artis zee systems are designed to conform to the requirements of surgery, anesthesiology, and cardiology, and provide efficient space and equipment management in sterile conditions while enabling excellent image results.

Position flexibility — Artis zee systems can be easily moved to a parked position, when imaging is not required during a hybrid procedure. This enables excellent access to the patient during surgery from all sides. The system table allows both lateral and longitudinal tilt, matching the demands of an OR environment.

Image excellence — Artis zee features a new imaging chain with state-of-the-art components and processing capabilities. High-end cardiac imaging facilitates outstanding pre-procedural diagnostic information as well as post-therapeutic quality control. And all with significantly reduced radiation exposure for patient and personnel. In addition, 3D imaging of the beating heart during the procedure enhances the diagnostic information and supports the therapeutic planning process.

Accessories — Artis zee tables feature support rails that accommodate arm supports, anesthesia drape holders, infusion bottle holders, trays, and other surgical equipment. A trolley can be used to operate the system from a convenient position in the OR and an additional monitor suspension can be mounted.

Patient management — Advanced 3D imaging applications enhance decision-making during procedures and can eliminate the need to transfer patients to CT.

# Meet zeego\*, the world's most flexible surgical assistant.

Artis **zeego**, the revolutionary, multi-axis system is ideal for cardiac procedures in the operating room. It offers more angulations than conventional systems, and its flexible working height makes procedures much more comfortable for the clinical team. Artis **zeego** also features special park positions that allow easier access to the patient.



Artis **zeego**'s exceptional flexibility and outstanding ergonomics enable you to perform hybrid procedures with more efficiency, precision, and comfort. Artis **zeego** can be stowed in a variety of compact positions to make the most of the limited space available in OR environments.



Due to its multiple axes, Artis **zeego** offers unmatched flexibility for complete head-to-toe coverage and the advantage of a variable working height reducing fatigue.

# Looks good on the bottom



## line.

A new interventional imaging system represents a substantial investment for any healthcare enterprise. Artis **zee** was specifically designed to provide value for your investment today and in the years ahead.

#### Fast, efficient, and precise care.

Artis **zee's** advanced 3D imaging capabilities enhance the decision-making of clinicians and facilitate faster and more effective procedures. Its ergonomic controls streamline workflow and improve patient throughput. Its OR capabilities help you make maximum use of your cath lab. And its ability to generate *syngo* DynaCT Cardiac images reduces the need for costly and time-consuming pre-procedural CT scans.

Your investment in the a new Artis **zee** marks the beginning of an important relationship that will last over many years. Siemens is proud to offer you tailored selection of programs and services that will help ensure imaging excellence, enhance your workflow and give you investment confidence.

#### Life is a learning opportunity

From installation planning to turnover you will benefit from our experienced and highly competent project management team. Our world-class onsite applications training will help to ensure that you realize the full imaging and workflow potential of your new Artis zee. Dedicated e-learning helps to maintain knowledge levels, and offers access to useful tricks and tips 24/7. Plus A wide range of international clinical workshops and fellowships in radiology and cardiology are also available should you wish to further expand your clinical knowledge, or widen your diagnostic and treatment portfolio.

#### Staying ahead of the curve

As an Artis **zee** customer you can also benefit from the most modern proactive service technologies including Guardian Program™, which significantly reduces unplanned downtime by detecting problems before they occur.

#### Looking forward

Your new Artis **zee** has been designed with the future in mind, and Siemens is committed to sharing that future with customers who invest in Artis **zee** today. *syngo* Evolve for Artis **zee** is your investment in the future, today. Opting for *syngo* Evolve for Artis **zee** will enable you to participate in future innovations via a managed upgrade program, helping you to stay at the cutting edge of imaging excellence and enhanced workflow.

# zee the possibilities.

Siemens has been expanding the boundaries of cardiology for nearly a century. Over the decades, we have developed a host of innovations that have made diagnostic imaging faster and more effective, and that have enabled millions around the world to live longer, healthier lives. Artis zee is the latest illustration of that legacy of forward thinking. And as medical science continues to explore the possibilities of interventional imaging, Artis zee will be ready to help you translate that progress into higher levels of care.





\*Artis **zeego** is 510(k) pending



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