



# Making the difference with Live Image Guidance

Enjoy straightforward surgical imaging

Together we make the difference in surgical procedures to improve patient outcomes and save lives. With our Live Image Guidance we are creating a better user experience and providing greater insight in the surgical theater, delivering relevant clinical value where it's needed most – at the point of patient treatment.

New and complex surgical procedures require surgical teams to work together efficiently and understand the exact nature of critical anatomy. When setting pedicle screws for a lumbar fusion, maneuvering a stent graft into position during an EVAR or inserting a pacemaker lead, your X-ray system provides crucial guidance. High quality images and accurate positioning simplify device deployment, and increase first-time-right results.

We have re-defined teamwork during surgical imaging so you can experience an enhanced level of efficiency in surgical procedures.

## Key advantages

- Transform your surgical procedures with tablet-like simplicity. The user interface is so easy, it scored in the top 10% for ease of use<sup>1</sup>
- Cut miscommunication by almost half during positioning through our patented ClearGuide and color coding on the C-arm<sup>2</sup>
- Increase confidence during complex vascular, cardiac, and orthopedic procedures with superb image quality achieved at excellent dose efficiency



# Better user experience to promote consistency and efficiency

## Efficient workflow to enhance staff satisfaction

When you are deciphering tortuous vasculature or finding the sweet spot for spinal surgery, establishing an efficient workflow can enhance team members' satisfaction. Physicians and operators experience a whole new level of simplicity with our tablet-like user interface on the C-arm. Now you can just touch the screen with a finger to drag the shutters and iris into position on Last Image Hold. At each step you only see the features you need, making it easy to find the right selections.

## Outstanding communication for faster positioning

Our unique ClearGuide in combination with color coding on the C-arm speeds up positioning. This can make spinal surgery and other procedures that require frequent position changes more pleasant for staff. ClearGuide provides a uniform set of reference numbers for the operator and physician to use during positioning. In fact, when users tested ClearGuide as they performed a simulated spinal surgery, miscommunication about system positioning was cut by almost half.<sup>2</sup>

## Accurate repositioning – first-time-right

With Position Memory, you can store a previous position and recall when needed to speed up re-positioning. During user tests, Position Memory increased first time right<sup>3</sup> repositioning from 49% to 94%<sup>2</sup>.

## Ample room to work

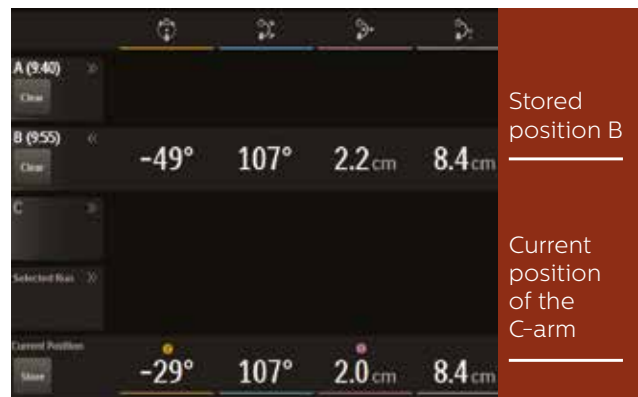
The enhanced C-arm design provides ample room to easily access and image normal sized and obese patients. There is plenty of space for the surgeon to work around patients, and it's easily to position the C-arm, even for difficult projections.

## Wireless foot switch – less clutter

Our Wireless foot switch streamlines workflow, reduces clutter, and simplifies preparation.



Swipe through images, pull up a large image, and collimate and rotate images with the touch of a fingertip on our intuitive touchscreen.



Position Memory stores a previous position and displays it on the monitor above the current position of the C-arm, helping the user quickly return to the desired view with accuracy.



The same reference numbers are clearly visible on the monitor of the Mobile View Station and on the Flat Detector so everyone knows which direction is meant during positioning. When users tested ClearGuide as they performed a simulated spinal surgery, miscommunication about system positioning was cut by almost half.

# Greater insight and confidence in finding and treating the problem



See more, decide with confidence  
Our third generation Flat Detector system once again raises the bar in surgical imaging performance. It provides high quality fluoroscopy, exposure, subtraction runs, and roadmap guidance to support orthopedic, cardiac, and vascular surgeons in performing the most challenging procedures. The Flat Detector delivers consistent, undistorted edge-to-edge image quality and superb contrast resolution to support critical decision making.

Outlining made simple  
To easily mark a bifurcation or side branches on live fluoroscopy images, the outlining tool allows you to draw on the touch screen of the Mobile Viewing Station using a stylus pen or your finger.

# Lower barriers for minimally invasive interventions

## Manage dose efficiently with relevant acquisition settings

Different types of procedures require different imaging parameters. Now it's even easier to select the relevant procedure and anatomical area from a pre-set list of relevant acquisition settings.

You just select with your fingertips on the intuitive touchscreen. The system automatically applies the parameters to get the required image quality without applying more X-ray dose than necessary.

## Comprehensive X-ray dose management

A full range of radiation dose management features, such as beam filters, monoblock design for sharp pulses, and removable grid provides excellent dose efficiency during procedures.

## DoseAware real-time dose feedback

We also offer the DoseAware<sup>4</sup> dose monitoring system. The system provides real-time feedback that is displayed during a procedure, so staff can immediately adjust working habits to better manage radiation exposure. DoseAware also provides a time-stamped record of where and when X-ray dose was acquired.



**Conveniently select the procedure type and anatomy and the system will automatically deliver excellent image quality without applying more dose than necessary.**

## Increased economic value

By supporting a wide range of procedures and improving<sup>2</sup> workflow efficiency during imaging<sup>2</sup>, the Veradius Unity may help you increase system utilization and reduce the total cost of ownership. Flexible service contracts protect your investment over its entire lifecycle, increasing uptime and providing easy access to upgrades and innovations.



## Save precious time

Many features in our system help you save valuable surgical time. During preparation, you can boot-up the system in less than 70 seconds and bring it into the OR, ready to go. ClearGuide reduced the time needed for positioning by more than 20% in user tests<sup>2</sup>. Also, Position Memory reduced the time needed to get back to a previous position by more than 40%<sup>2</sup>.

## References:

- 1 Top 10% for ease of use is based on an average score of 83.5 on the System Usability Scale (SUS) by 15 users in an independent study, interacting with the C-arm software's user interface. The SUS was developed by J.Sauro (See "A Practical Guide to the System Usability Scale: background, Benchmarks, & Best Practices," by J. Sauro, 2011, Denver, CO, USA, Measuring Usability LLC.) Sauro's study tested the ease of use of 500 consumer and commercial products and did not necessarily include mobile surgery C-arms.
- 2 Results obtained during user tests performed in November 2013 by Use-Lab GmbH, an independent company. The tests involved 30 USA based clinicians (15 physicians teamed up with 15 nurses or X-ray technicians), who performed simulated procedures in a simulated OR environment. None of them had worked with a Philips C-arm or with each other before.
- 3 First-time-right repositioning was defined as moving to a position within 1 degree of the required position in the test set-up
- 4 DoseAware is not a replacement for the thermoluminescent dosimeter (TLD) as a qualified dose meter

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