Control and confidence all around

Philips EP cockpit people focused solutions for heart rhythm care

PHILIPS

sense and simplicity

EP cockpit - brings new innovations

EP cockpit simplifies your EP lab

1. Improving your EP lab working environment
2. Integrating EP data throughout the care cycle
3. Assisting with complex therapies

to your EP lab

"I think Philips cockpit and navigator have been developed out of an obvious need to integrate divergent information sources - to help physicians deal with the challenges of information overload."

Dr. Gabriel Soto, Southeast Missouri Hospital, Missouri, USA

Electrophysiology (EP) is the fastest growing market segment in cardiology. However, many electrophysiology departments are having difficulty dealing with the increasing demand for procedures and the need to perform more complex patient treatments. EP procedures are very highly specialized and require dedicated equipment and facilities. Yet they are often performed in cath labs that are not specifically designed for this purpose and end up becoming cluttered and inefficient.

With this in mind, Philips developed an integrated EP solution which addresses the shortcomings of the present EP intervention lab set up and provides a comfortable and efficient working environment. The result is Philips EP cockpit, a fully integrated solution for the EP lab that is tailored to you – EP clinicians and staff members. This revolutionary concept improves the EP lab working environment, integrates data management in the lab and across the EP care cycle and assists with complex therapies.

"It brings together the technological advances in EP in a versatile, user-friendly way"

Dr. Kanagaratnam, St. Mary's London, UK

Improving your EP lab working environment

Your EP lab uses an array of EP specific equipment that can clutter your working area and make it difficult to perform procedures efficiently. Philips has tailored the EP lab to optimize workflow, increase efficiency and make it a convenient place to work.

A more efficient exam room

No more loose cables and equipment

Philips ceiling mounted, swivel rack organizes your EP equipment: mapping system, recording equipment, stimulator and defibrillator. The rack swivels around the patient table when in use and can be parked when finished. It guides all cables, simplifies cleaning and reduces clutter in your EP lab.

Flexible viewing options

View all the information you need, from Philips and third party systems, on any of the 6 or 8 21-inch monitors or on the large 56-inch LCD screen with EP cockpit XL, right at the table side. The information displayed can be customized and configured to your needs. The medical grade monitors support the image quality requirements for monochrome X-ray images, color EP signals and other images.

Resize and enlarge information with EP cockpit XL

The large 56-inch, high resolution color LCD screen lets you select and personalize all relevant procedure information from up to 8 sources simultaneously. With advanced SuperZoom, you can resize and enlarge information at any time and position on the screen, while maintaining full sharpness. It enables you to see small details, while maintaining your most convenient working position. The touch screen module gives you full control over information at the tableside.

A streamlined control room

Viewing and control

View the information displayed on the 6 or 7 control room monitors, from Philips and third party systems, according to your preferences. To simplify control and speed tasks, additional keyboards and mice for third party equipment connected to EP cockpit are eliminated as well.

Operate all equipment from one workspot

Operate Philips and third party devices from a single touch panel in the control room. Put information on any monitor in the exam and control room and change the set-up as you like. Keyboards and mice can be assigned to monitor of preference.

"It's a fantastic way to clean up the lab. Not a thing is on the floor."

Clinical EP Nurse Michelle Meyer,
Carondelet Heart Institute, Missouri, USA

Flexible viewing

- Mix and match images tailored to your need
- Free programmable preset screen configurations
- Up to 8 monitors available at patient tableside

Less clutter

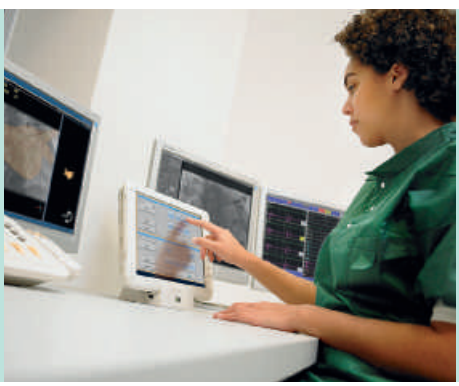
- Equipment centrally organized
- No loose cables on the floor
- Ceiling mounted

"EP cockpit's ability to have all the information displayed directly in front of me, is of great value. We have complete control over where the information is displayed. Rearranging the monitors is as easy as dragging and dropping your finger across the touchscreen module."

Dr. Gabriel Soto, Southeast Missouri Hospital, Missouri, USA

Streamlined control room

- Mix and match images tailored to your need
- Free programmable preset screen configurations
- No additional keyboards



Easy control

- Operate your equipment from single touchscreen control
- Assign keyboard and mouse to the monitor of preference

Integrating EP data throughout the care cycle

You need a variety of information to diagnose and treat heart rhythm diseases effectively. Yet today it is not possible to view all that data on one system. Philips provides to clinical staff one access point for all relevant information throughout the EP care cycle. For the first time you have direct access to patient data and images from X-ray, EP recording signals, EP mapping data, ultrasound (including Intra Cardiac Echo), CT, MR, nuclear medicine and ECG information – all on one single workstation. This makes it easier for you to access and store information before, during or after a procedure.

Work more flexibly and efficiently

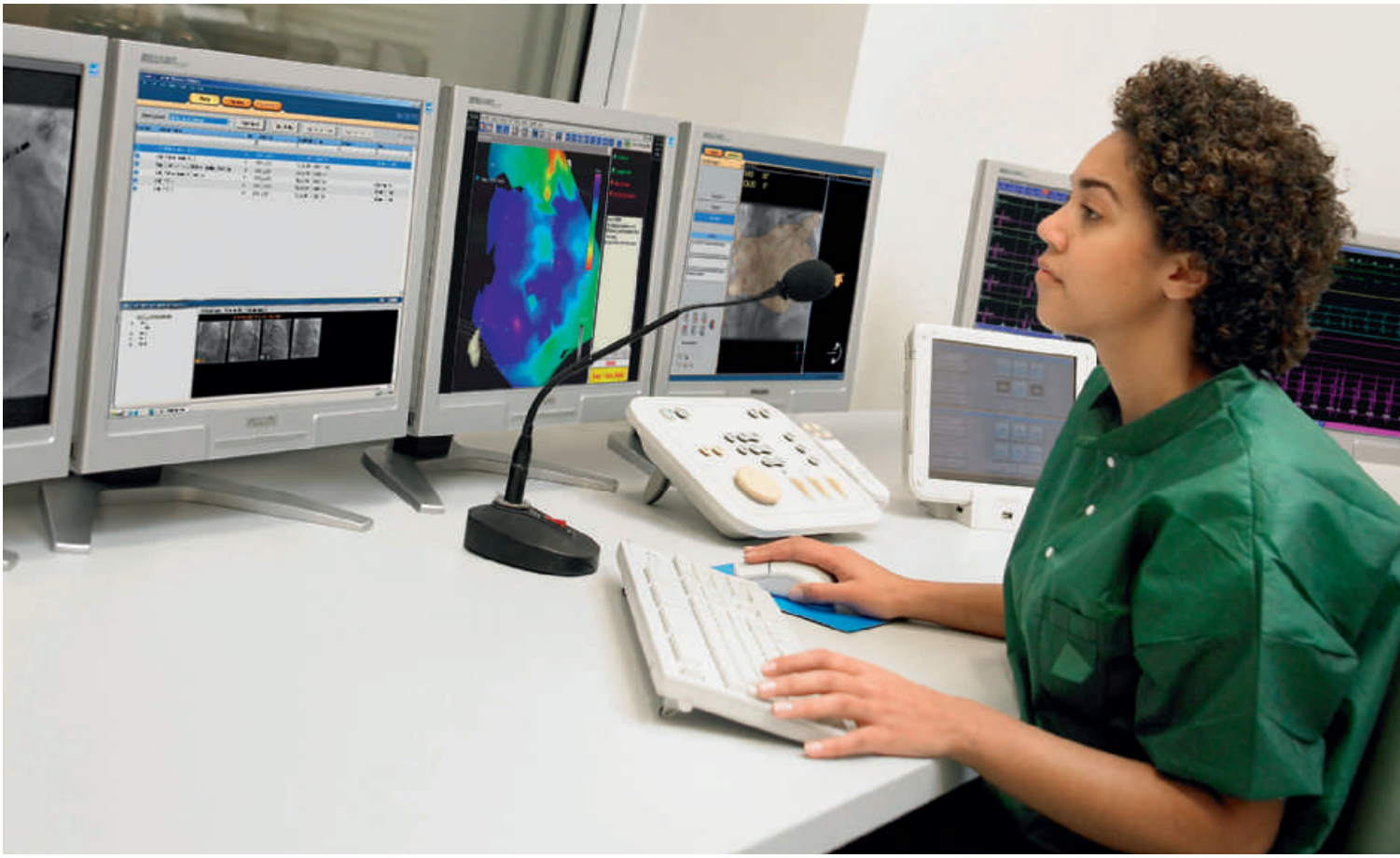
EP data from diverse equipment can be stored and accessed from a single workstation, which gives you more freedom in where you perform your tasks. EP treatment can be planned and prepared off-line in a physician's office or at another workstation outside the exam room to free up valuable lab time. Imaging data acquired before the procedure can be accessed during interventions. EP-specific pre-interventional data like CT or Echo can be viewed and sent to third party equipment during an intervention in the exam room to reduce delays and support clinical decision-making. Relevant EP data, including that from third party equipment, can be viewed and stored during interventions to expedite procedures.

Comprehensive record-keeping

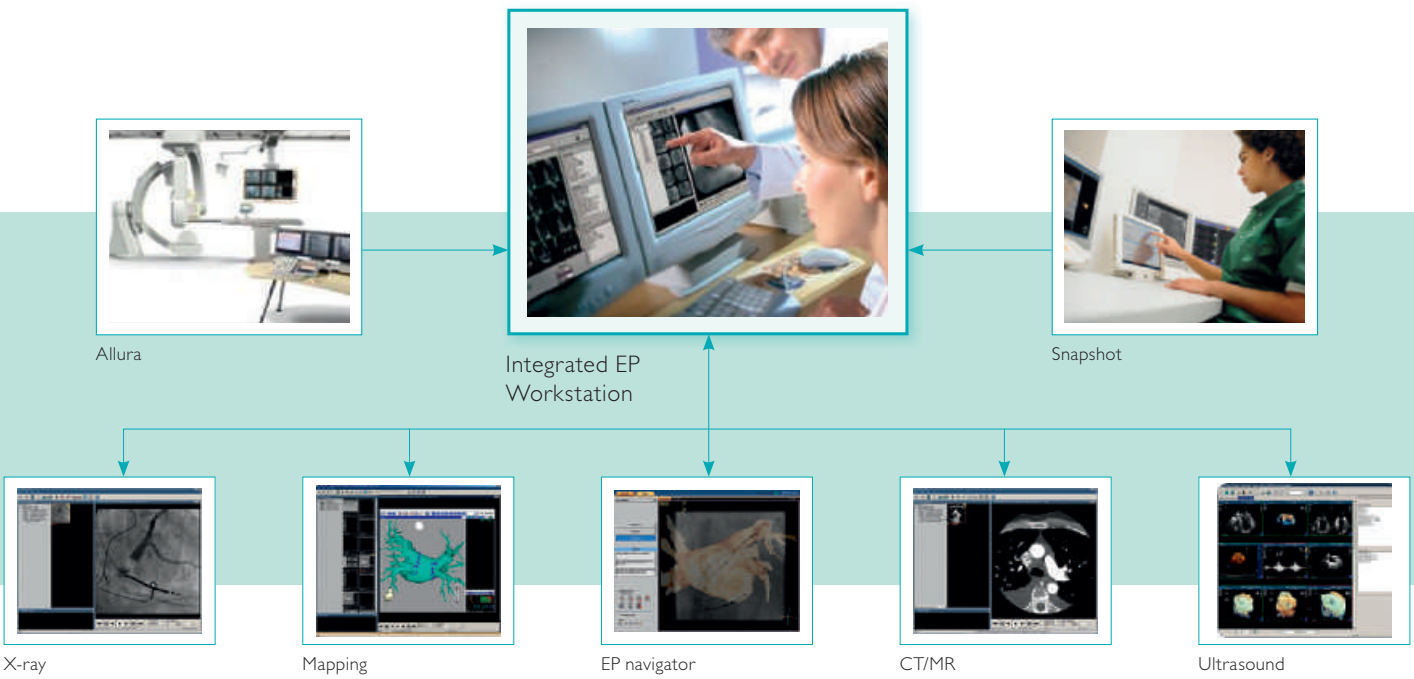
The EP snapshot function is particularly useful for record-keeping. It enables you to take snapshots of still images from any image on any screen in the control room or exam room to record an event. Relevant EP data and images can be included in reports or presentations.

One source for all your EP information

- Take snapshots of any image on any screen for reports or presentations
- Manage information more effectively
- Save time by having all information in one place



One access point for your EP information



Assisting with complex therapies

EP interventions are very time-consuming and may take several hours. Success of the procedure goes hand in hand with accuracy. X-ray fluoroscopy and 3D mapping are the most commonly used tools for guiding these interventions. However, both tools have their limitations. Philips EP navigator software helps to visualize 3D cardiac anatomy and the position of catheters, in real time, in one image, in the EP interventional lab. This information can help you carry out complex EP procedures with confidence, in a more intuitive way.

EP navigator provides a 3D image of the heart based on either a pre-interventional CT image or an actual rotational angiography acquisition in the EP lab.

3D atriography

EP navigator offers the optional feature 3D atriography, which allows you to create a 3D image of the left atrium on the Allura Xper X-ray system in the EP lab by doing a rotational angiography with contrast injection. An up-to-date view of the cardiac anatomy is vital for guiding EP interventions. 3D atriography allows you to create up-to-date 3D images of the left atrium in your EP lab and use this information to guide your catheter.

Endoview shows the inside of the heart

EP navigator includes endoview, which lets you slice away a part of the segmented heart structure and "look inside" the three dimensional model. This enables you to get a better view of the posterior side of the atrial wall. It makes the ostia of the pulmonary veins, ridges and other cardiac structures visible so you are better able to see where you are moving your catheter.

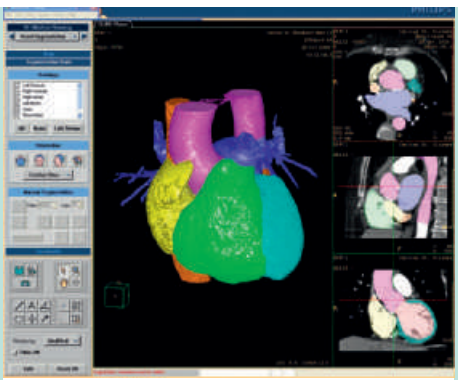
Easy segmentation and synchronized movements

EP navigator provides an automatic segmentation of the heart, which saves a great deal of time compared to manual segmentation. Following segmentation, you can extract different cardiac structures from the data set. Unique algorithms are used to provide fast and accurate automatic segmentation. Once the desired 3D volume has been chosen – either a pre-acquired CT image or rotational angiography – it is aligned with the Allura Xper X-ray system. This enables EP navigator to move in-sync with the Allura Xper X-ray system to help you get the best viewing angle for the composite image and prevent in using unnecessary X-ray dose.

1. Creating 3D atriography scan

Data is collected and loaded

Note: alternative is to load CT data into EP navigator from a PACS or a CD



2. Viewing and automatic 3D segmentation

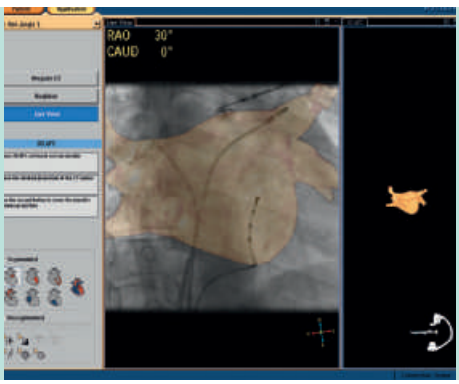
3D segmentation of different cardiac structures is automatically created.

"EP navigator shows me in real-time where the catheters are in respect to the 3D cardiac anatomy"

Dr. Kriatselis, DHZB, Berlin, Germany

3. Registration

The 3D volumes are overlaid on each of the user-selected views. If needed the user adjusts the 3D volume to optimize the registration.



4. Live view

The registered image shows the position of any catheter in relation to the 3D cardiac anatomy in real time. When you rotate or move the Allura Xper system the EP navigator image will follow automatically in real-time.

Philips Proven Allura Xper FD family

Allura Xper family

The basis of many of our EP solutions is the Allura Xper: the flat detector X-ray system used for both diagnostic and interventional procedures. The Allura Xper monoplane systems offer full flexibility for electrophysiology (EP) interventions and implant procedures. The Allura Xper bi-plane delivers superb image quality in both the frontal and lateral plane, enabling side-by-side viewing. Using the Allura Xper bi-plane system saves valuable time. It delivers twice the information with a single contrast injection.

Philips is committed to improving heart rhythm care

An already established leader in interventional cardiology, Philips is also a major medical equipment company with a dedicated EP business program. Thanks to our broad product portfolio and close collaboration with some of the most important players in the EP sector, we offer you an integrated solution that covers the EP care cycle. We help to remove complexity and allow you to truly realize your potential in this fast-expanding market.

Allura Xper FD family

- Mono-plane and bi-plane configurations
- Optimal projection flexibility
- Intuitive control at table-side
- For dedicated EP and mixed interventions

"Phantom studies indicate that up to 80% reduction in patient's skin dose may be achievable when using the lowest of the dose modes available when compared to standard UK cardiac dose rates…" *

* A.G. Davies et al, quotes from his study "X-ray Dose Reduction in Fluoroscopically Guided Electrophysiology Procedures," University of Leeds, Leeds, United Kingdom.

Lower dose for EP procedures

The Allura Xper system is programmed with Philips dedicated EP dose-saving image protocols. These settings have been developed and tested uniquely for EP. All dose parameters can be adjusted as needed.

Solutions that work for you

Throughout your entire system ownership, Philips Services offers you an extensive portfolio of services. Helping you get the most out of your system and ensure you have time to focus on what is most important: your patients.

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