# **Effortless Workflow**

Work faster. Work easier. Work smarter.







# Streamline and simplify workflows across every modality. Effortlessly.

High-quality imaging is in high demand, and your employees are feeling the pressure. What if you could make their work more efficient and rewarding while achieving exceptional imaging quality?

## Effortless Imaging. Without lifting a finger.

Part of the Effortless Imaging portfolio, the Effortless Workflow collection of efficiency solutions automates time-consuming tasks to improve many aspects of imaging, from pre-scan to post-scan.

Get more with Effortless Workflow.

# Effortless Workflow across your fleet of imaging devices:

- Magnetic Resonance (MR)
- Molecular Imaging (MI)
- Computed Tomography (CT)
- Mammography

X-ray



Learn more

**EFFORTLESS WORKFLOW** 

# Simplify the complex with Effortless Workflow.

# Move from a tangle of manual steps to a streamlined, efficient workflow.

The Effortless Workflow collection of applications brings greater precision, accuracy, and ease to imaging.

## Achieve the right image. The first time.

Automate time-consuming tasks to help remove the guesswork from imaging and ensure precise alignment and more consistent, accurate images.

#### Reduce stress and strain

By simplifying complex setups and assisting with patient positioning, our advanced solutions may help lessen physical strain, as well as retakes and rework.

## Increase patient comfort

Everyone suffers from long exam set-ups, including patients. Streamlining processes and enhancing accuracy helps to reduce patient anxiety and discomfort.







# **Effortless Workflow for Magnetic Resonance**

"AIR Touch™ makes coil selection much easier and I don't have to check what elements are activated because the system does it. It helps with workflow, but the most important factor is that it helps me focus more on the child."¹

Pär-Arne Svensson
 MR Research Radiographer

 The Queen Silvia Children's Hospita

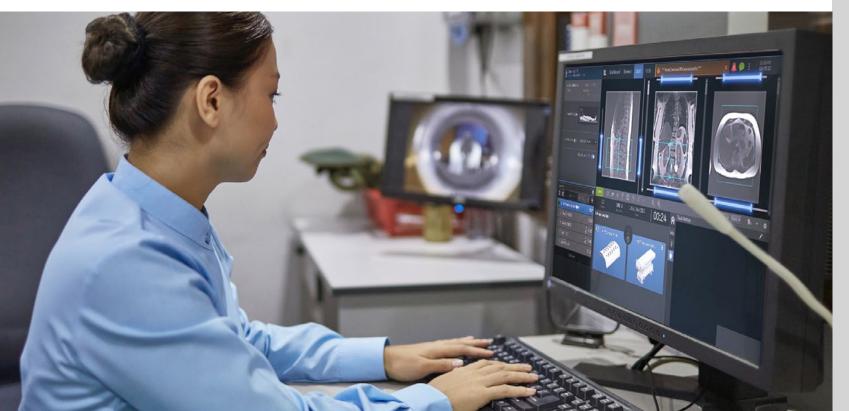
**59%** 

improved set-up time1,2

# Powerful MR workflow efficiencies are in the AIR™

From coils to workflow to image quality, we deconstruct everything down to its most fundamental, simplified version. And improve it. Each new innovation and solution automates and personalizes steps in the workflow, so you can expect more consistent image quality and exam times from all technologists.





## Explore the entire AIR ecosystem.

#### **Prepare**

AIR™ Coils are designed to be lightweight and ultra-flexible to improve patient comfort and reduce motion artifacts. Anterior array coils, multi-purpose coils, and 48CH head coils available.

AIR Touch™ selects the best coil element combinations for each patient over the precise volume-of-interest. Customized parameters make setup simple and efficient. No matter the skill level, you'll get the best image possible with just one touch.

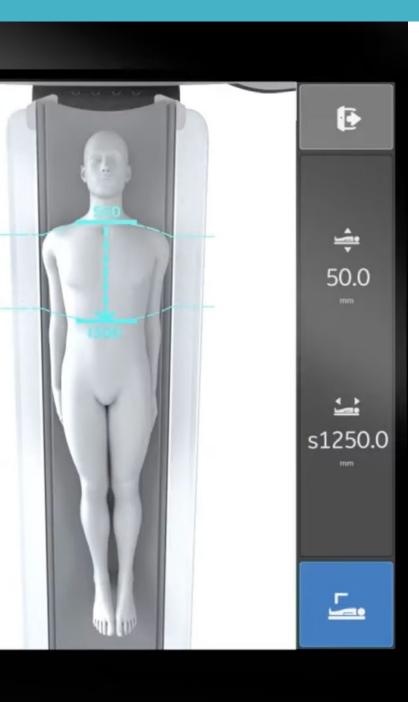
#### Scan

AIR x™ uses deep-learning algorithms to automatically detect the patient's anatomy and prescribe the precise MR slice. Ideal for routine and challenging neurological and knee exams, AIR x eliminates manual slice placements, speeds set-up times, and can help reduce rescans.

#### Decide

AIR™ Recon DL: Revolutionary, deep-learning based reconstruction technology provides sharper and accurate images while reducing scan times by up to 50%.

Sonic DL™: Using deep learning, we've helped to cut cardiac scan times from minutes to seconds, reducing motion artifacts and the need for rescans.



# **Effortless Workflow for Computed Tomography**

"The technology has advanced so much, it's given more dedicated time to the patient. If you take advantage of what the machine can do, you have that integration of human and technology."

> German Alberto Peña CT Technologist
>  West Kendall, Baptist Health

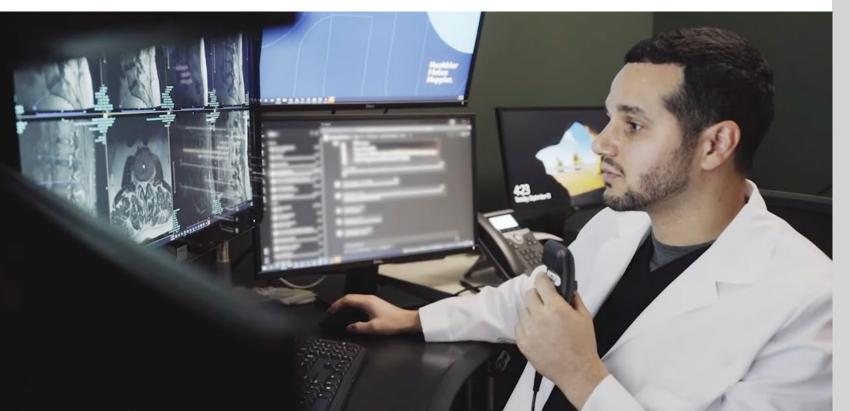
94%

accuracy on auto-centering the patient within +/- 2cm with Auto Positioning<sup>1,3</sup>

# Simplifying CT to revolutionize CT.

We studied the full CT workflow and created solutions using AI technology to streamline the entire process. Now your team can achieve high-quality images and confident results faster than ever before, while reducing stress and strain, retakes and backlogs. It's meaningful innovation that leads to marked transformation. Effortlessly.





# CT innovations and applications assist with every step of imaging.

## **Prepare**

**Intelligent Protocoling** automatically suggests a protocol for each exam.

**Auto Patient Positioning** uses built-in AI to automatically position the patient to the start scan location and minimizes actions into a single-click operation.

#### Scan

**Smart Plan** uses information from the patient scout to provide the correct scan range for head, chest, abdomen, and pelvis scans, as well as multigroup acquisitions.

**Auto Prescription** delivers an auto adjustment of scan settings, balances dose and image quality, and offers other efficiencies.

#### Decide

**Direct MRP** provides automatic generation and real-time visualization of multi-planar reformats.

**Automated and Al-based applications** are designed to generate automatically aligned and relevant reformatted views, reducing manual tasks for fast, consistent post processing.

Some features may not be available on all systems or models. Check with your local GE HealthCare representative for availability in your country or region.



# **Effortless Workflow for X-ray**

"As a radiologist, image quality is everything and these images are a definite upgrade. It's also had an immediate impact and been well-received by all our staff members, because it's simple to use – with minimal steps and clicks required..."

- Orlando Ortiz, MD

Radiologist and Department Chair

Jacobi Medical Center

Reduce set-up time by up to Quantum Property of the Property o

with AutoGrid1,4

# When every click, push, step, and movement matters.

X-ray accounts for 60 percent of all imaging studies.<sup>5</sup> Getting the right image the first time is crucial for diagnosis and workplace efficiency. However, workflow variability can reduce image consistency, as well as throughput and capacity. What if your X-ray system could help you do more through less steps, less positioning, less stress and strain, and less rework?





# A collection of innovations designed to reduce the pressures of X-ray imaging.

## **Prepare**

**Auto Positioning, Auto Centering,** and **Auto Tracking** automatically position and move the system's components so you don't have to move them manually.

**Auto Angulation** rotates the tube head to a predefined angulation position for specific procedures with a simple click.

**AutoRAD** automates workflows from exam start to patient positioning with zero clicks.

FlashPad™ HD detectors automatically connect wirelessly to designated systems and charge in their holders.

#### Scan

AutoGrid™ offers consistent contrast without the use of a physical anti-scatter grid, reducing setup time by up to 24%.<sup>4</sup>

**System readiness indicators** tell you when an exposure can be taken or when there's a problem.

Intelligent Workflow Suite with Position Assist and Technique Assist combines computer vision, video analytics, and precision engineering to solve for common errors and inefficiencies.

#### Decide

**Patient Snapshot**, part of Intelligent Workflow Suite, takes a picture at the same time as X-ray and attaches it to the file, providing context to the radiologist.

**Quality Care Suite**: Real-time, on-device automatic quality checks for frontal chest X-rays.

**X-ray Quality Application**: Tracks rejected images by technologist, exam type, and reason.

Helix<sup>™</sup> Al-driven, advanced image processing provides exceptional detail and clarity.

Some features may not be available on all systems or models. Check with your local GE HealthCare representative for availability in your country or region.



# **Effortless Workflow for SPECT/CT**

"It is easy to use; it is quite intuitive. When centering the patient, we do it directly at the examination bench. The Optical Scout\* is displayed on the touch screen. There are fewer steps."

- Florence Maingret

Technologist, Nuclear Medicine Department Centre Hospitalier Universitaire d'Orléans

57%

less clicks with Q.Lung AI1,6



# **Effortless Workflow for PET/CT**

"The combination of a seamless workflow and improved image quality is great. Since there was no additional setup time, it did not disrupt patient throughput. We plan to use this routinely on all patients."

Dr. Huellner
 NM Physician
 University Hospital Zurich

Improvement in PET/CT lesion volume measurements. <sup>1,7</sup>

# Forging new pathways toward effective health care.

Our advanced innovations for MI are designed to usher in a new age of efficiency and discovery. An impressive combination of streamlined workflows and enhanced clinical performance can help you quickly gain insights into your patient's condition, minimize scan time, and reduce backlogs by optimizing staff and equipment.





# A new direction for SPECT/CT and PET/CT imaging.

## **Prepare**

SPECT/CT – Optical Scout provides preliminary, optical scans in seconds to create an accurate topographical map of the patient and assure fast transitions from one imaging position to the next.\*

**PET/CT – Auto Positioning** streamlines patient positioning workflow into a single-click operation. Using a deep-learning algorithm, it detects landmark locations and displays the scout scan range on the Xtream Tablet to perform required pre-scan tasks at the patient's side.\*\*

**PET/CT – AutoIN** gives your technologists the ability to landmark and position the patient table from the console in the control room.

#### Scan

**SPECT/CT – SwiftPlan Workflow** simplifies clinical interactions by enabling adaptive and consistent, optimized and personalized camera setup and scanning.

**PET/CT – MotionFree** digital respiratory motion-management solution eliminates the need for a gating device, avoiding up to 11 minutes in patient set-up time compared to an external gating device.<sup>8</sup>

#### Decide

**SPECT/CT – SmartConsole** automates reconstruction, simplifies complex hybrid imaging and quantitative protocols, and generates high-quality hybrid images.

SPECT/CT – Q.Lung AI automatically segments lung lobes for preoperative functional assessment of lung cancer cases. For pulmonary embolism cases, it automatically segments the lungs and trachea for 3D evaluation of ventilation and perfusion.

<sup>\*</sup>Optical Scout and SwiftPlan are available on StarGuide.

<sup>\*\*</sup>AutoPositioning is available on Omni Legend.



# **Effortless Workflow for Mammography**

"Using the new automated QC\* process, I've been able to run through the protocols in about half the time as I would need before... we're ensuring that our systems are producing the same quality imaging for every patient."

– Meggan Bush

Radiology Technologist at Lake Medical Imaging The Villages, Florida

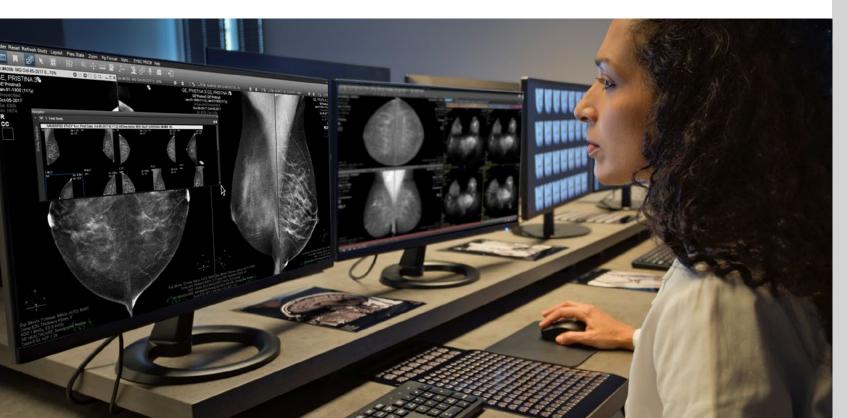
The number of actions needed to perform the weekly technologists' QC was reduced by

47% o

# Reshaping efficiency in breast health imaging.

Today, advances in mammography can transform women's cancer screenings—and your radiology department. GE HealthCare's AI solutions are designed to reduce the pressure large amounts of data place on radiologists' workloads, while innovative and intuitive workflow applications create a more streamlined, efficient operation.





# A better mammography experience for patients, technologists, and radiologists.

## **Prepare**

Ergonomic design enhances patient comfort.

**Auto Positioning** moves gantry to next position at the touch of a button with pre-programmed positions to reduce strain on the technologist.

**DBT-guided biopsy positioner** enables biopsies to be performed within 15 minutes.<sup>10</sup>

**Faster Quality Control** with less required actions reduces technologists' weekly QC time.<sup>9</sup>

#### Scan

**Auto naming** reduces the number of clicks and minimizes mistakes by automatically writing the view name based on gantry position and laterality.

#### Decide

**ProFound AI™** features a deep learning-based concurrent reading solution that helps radiologists improve cancer detection performance and reduce reading time by up to 52% when interpreting digital breast tomosynthesis (DBT) cases.<sup>11</sup>



<sup>1</sup>The results achieved by this facility may not be applicable to all institutions, and individual results may vary. This is provided for informational purposes only and its content does not constitute a representation or guarantee from GE HealthCare.

<sup>2</sup> AIR Touch anatomical-based protocol optimization demonstrated up to 59% increased productivity between planning and scanning.

<sup>3</sup>Measured centering accuracy from 921 standard routine exams in head and body with Auto Positioning in three institutions.

4Based on an internal study where a technologist conducted the same exam 30 times alternating between with grid and AutoGrid and decreased exam times on average by 25.4 seconds (~24%).

<sup>5</sup>IMV 2019 X-ray CR / DR Market Outlook Report, page 9, 37.

Compared to Q.Lung on Xeleris 4 DR. As demonstrated in bench test using five SPECT/CT cases. The bench test covered the workflow for pulmonary embolism diagnosis and lung function assessment. Results may vary.

\*Compared MotionFree to non-processed (STATIC, no motion-correction) data. As demonstrated in phantom testing using a typical and fast respiratory model, 18 mm Ge-68 spheres, and OSEM reconstruction.

Based on clinical practice at University Hospital Zurich, using 5-Ring PET/CT with MotionFree and RPM. These results are for illustrative purposes only and represent specific customer experiences; actual results could vary depending on clinical practice and circumstances.

<sup>9</sup>Based on total weekly QC time for technologists measured with and without Efficiency Suite on Senographe Pristina both internally and externally.

<sup>10</sup>From first to last image. Data on file. GE HealthCare 2020.

11An iCAD reader study showed up to 52% reduction in reading time when using ProFound AI compared to without Profound AI, while increasing sensitivity up to 8% and, most importantly, specificity up to 6.9%. Non-inferiority testing of the recall rate for non-cancers showed a 7.2% decrease of recall rate.