SOMATOM go.Open Pro

The future is in motion

siemens-healthineers.com/somatom-go-open-pro
Staying competitive in a growing market

Healthcare providers are under increasing pressure to deliver radiotherapy to more patients than ever. This demands innovative, efficient solutions that will achieve the best possible treatments and optimal patient outcomes – particularly when you are working with challenging cases.

A growing problem

Challenging cancers are on the rise

With cancer cases expected to surge between now and 2030,1 RT departments will have to treat more patients than ever. Motion will be a major obstacle in many of these cases.

The number of patients with conditions that create challenges for treatment (e.g. head and neck, breast, lung, liver, stomach, and esophageal cancer) is set to grow significantly.2 To manage this trend, you need technology that can push clinical boundaries and help you lead your field for years to come.

Precision medicine, curative intent, and hypofractionated treatments hold enormous potential for patients. Yet they are only possible if the treatment planning data are absolutely precise. Many patients with conditions that present major challenges – such as the inability to hold one’s breath – miss out on the benefits because current CT simulation cannot manage the individual complexities they present. Poor-quality, imprecise information makes it especially difficult to target tumors and protect vital organs in these complex cases. In addition, error-prone workflows and time pressure can further hamper CT simulation.

We believe the future is in motion – and this belief shaped the development of SOMATOM go.Open Pro. This advanced CT simulator provides accurate, reproducible patient modeling that can break down the barriers to modern treatments and individualized care. By harnessing the power of a unique detector width, superb soft-tissue contrast, and intelligent real-time breathing adaptation, it delivers exceptional clarity for confident treatment planning.

Input from RT specialists guided the design, so the fully integrated hardware and software are specifically tailored to your requirements. These pioneering features, combined with data synchronization across all components, allow you to master challenging cases and devote more time to your patients.

SOMATOM go.Open Pro helps you expand precision medicine. This unprecedented, intelligent CT simulator with advanced automated patient modeling allows you to push the boundaries to better treat the most challenging cases.

Welcome to a new world of CT simulation.
The future is in motion

SOMATOM go.Open Pro

Push the boundaries for challenging cases

A CT simulator that provides exceptionally accurate and reproducible patient modeling could break down the barriers to modern treatment methods and individualized patient care. SOMATOM go Open Pro allows you to push the boundaries for challenging cases.

Lung cancer

Direct 4D^{16} is a 4D CT sequence that intelligently adapts to the patient’s breathing in real time. Potentially reduce target margins by reducing unwarranted variations in the images, and make 4D CT available for more patients.

Breast cancer

With a wide detector coverage and fast rotation times, SOMATOM go Open Pro makes deep inspiration breath-hold available to more patients. It offers acquisition in breath-hold of just eight seconds.

Improve patient experience

Reduce unwarranted variations with high-quality OAR contours

AI-powered DirectORGANS\textsuperscript{2} delivers consistent organs-at-risk (OAR) autocontouring. It reduces unwarranted variations with high-quality contours that approach the level of consensus-based contours.

Cardiac chamber segmentation paves the way for research in the field of cardiac toxicity.

Save time by eliminating manual step with DirectORGANS (e.g., ribs, sternum, and lung lobes contours).

Improve access to tailored treatment, and boost image quality for more confident contouring.

SOMATOM go.Open Pro reinvents simulation for multiple cancer types, driving precision, and caring for patients and users. Co-created with RT specialists, it features fully integrated hardware and software tailored specifically to your requirements. The flexible, intuitive system synchronizes data across all integrated components. It operates via one user interface and requires a single vendor service contract.

Spend less time managing CT simulation and more time focusing on your patients – in the comfortable and calming environment that SOMATOM go.Open Pro creates for them.

Key technical data

<table>
<thead>
<tr>
<th>Field of view (FoV)</th>
<th>Acquired slices/reconstructed slices</th>
<th>Z-axis coverage</th>
<th>Rotation time</th>
<th>Power</th>
<th>Max. table load</th>
</tr>
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<tbody>
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<td>60 cm</td>
<td>64/128</td>
<td>0.84 cm</td>
<td>0.353, 0.5, 1.0 s</td>
<td>75 kW</td>
<td>227 / 3073 kg (TG-66 compliant tables)</td>
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Lung cancer

DirectSPIRAL Dual Energy\textsuperscript{3} is a new form of dual-energy acquisition. It uses a Tin Filter for optimal spectral separation.

Achieve precise target delineation with DirectSPIRAL Dual Energy and Monoenergetic Plus\textsuperscript{2}.

Breast cancer

Simulation reinvented

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Cardiac chamber segmentation paves the way for research in the field of cardiac toxicity.
Reduction of motion artifacts with real-time breathing adaptation

During the 4D CT scan, SOMATOM go:Open Pro intelligently adapts the scanning parameters to the individual breathing pattern in real time. Automated 4D reconstruction and optimized breathing then produce 4D images with virtually no artifacts caused by incomplete breathing cycles. This reduces unwarranted variations in the images that can potentially decrease target margins, and leads to less dependency on user and patient.

Push the boundaries for lung cancer treatment

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Adapting to the patient’s breathing potentially reduces image artifacts for smaller target margins.
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3 Optional
4 Online gating device such as RGSC or Anzai is required
5 As shown by measurements with a Gammex 467 Tissue Characterization Phantom comparing [T]standard reconstruction and DirectDensity reconstruction. Image value to relative electron/mass density conversion for the standard reconstruction was based on a two-linear-equations approach with individual calibration for each tube voltage. For DirectDensity images, a single tube-voltage-independent linear conversion was used. DirectDensity reconstruction is designed for use in Radiation Therapy Planning (RTP) only. DirectDensity reconstruction is not intended to be used for diagnostic imaging.
6 Volume rendered image is for illustration purposes only and not part of DirectORGANS.