



Simulix Evolution™

Ultra-advanced radiotherapy verification,
treatment planning and simulation

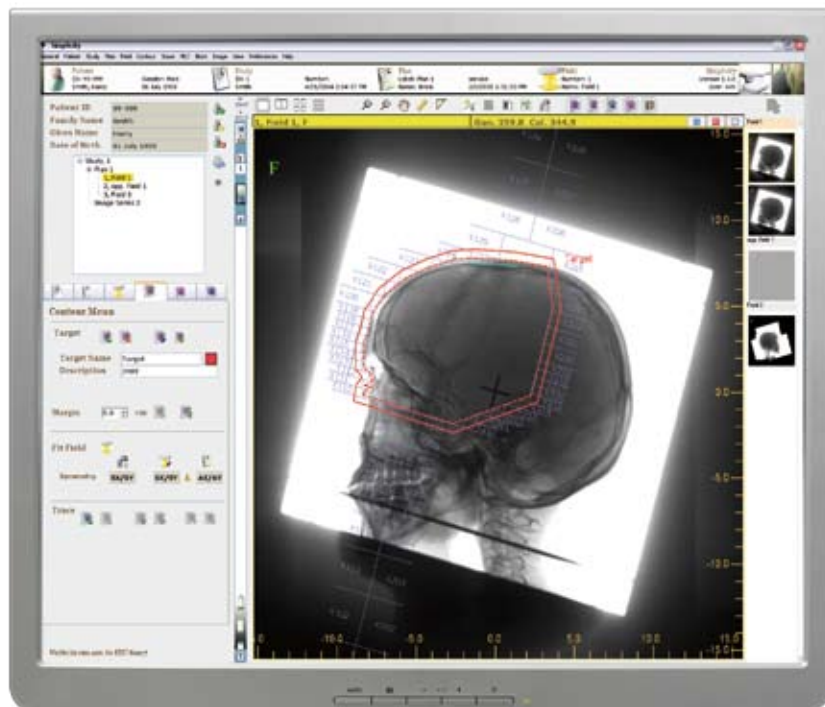
Simulix Evolution™ and Evolution upgrade

If there is one factor above all others that impacts the accuracy of a treatment simulation and verification, it's image quality. The better the image, the more information you have to work with, the more accurate the resulting treatment. Now you and your patients can enjoy added peace of mind with our latest, state-of-the-art simulator solution, the Simulix Evolution, which is available as both a complete, integrated system and as an upgrade package for users of our Simulix HP and HQ machines.

Whether you opt for a new Simulix Evolution or decide to upgrade your existing Simulix, the result is the same: the most advanced radiotherapyplanning, simulation and treatmentvalidation technology available today. Take the Simulix Evolution's unique combination of image quality and workflow-based design, for example. Or its universal, open architecture for a complete, versatile and efficient solution. Or the DICOM and RTLink open compatibility that ensures the Simulix Evolution integrates seamlessly with today's radiotherapy information management systems. Plus, the Simulix Evolution shares the proven reliability that has long been a hallmark of Nucletron Simulix simulators. Add it all together and you have a solution that not only defines 'flexibility,' but which can be quickly and easily installed in any radiotherapy environment. Including yours.

Image quality

The heart of the Simulix Evolution system is an amorphous flat panel detector that provides clinicians with high resolution, distortion-free digital images that are almost film-like in quality. Measuring 41 cm x 41 cm, this detector (the largest currently available on any simulator) combines the highest possible detail with true image geometry. This gives clinicians the best anatomical view of the patient and, combined with Electronic Simulation, reduces fluoroscopic dose and simulation time by up to 60%. In addition, automatic merge allows two or four images to be combined digitally, helping clinicians to view extended-distance and mantle-field simulations quickly and easily.



Go digital

The Simulix Evolution uses advanced, digital technology, which means it can support the implementation of a fully filmless workflow in your department. This completely digital environment reduces overall procedure time, while film-processing costs are wiped out at a stroke – a welcome saving that can be used to improve patient care elsewhere.

For more information about the
Simulix Evolution and Evolution
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Brachytherapy verification

In addition to external-beam treatments, the Simulix Evolution's detailed, high-resolution images complement your brachytherapy procedures. Nucletron is the world leader in brachytherapy and has extensive experience of brachy imaging, planning and treatment. The Simulix Evolution is ideal for applicator, needle and seed placement verification, while images can be exported to Oncentra or other compatible treatment planning systems for accurate brachytherapy planning. The Simulix Evolution's off-center table rotation creates extra working space for surgical procedures, including applicator implantation and every other aspect of brachy treatment, without having to move the patient off the table.



Benefits:

- A guaranteed up-time of 98%
- The high throughput and low maintenance that are hallmarks of Simulix simulators
- High quality images that provide unbeatable detail for more accurate treatment solutions
- Automated functions that reduce the time the patient spends in the simulator and their exposure to radiation
- A fast, intuitive user interface
- Dedicated, digital simulator workstation with filtering tools, annotation tools, panel zoom, light-box, contouring tools and more
- Softguard™ collision avoidance system reduces the risk of patient injury and boosts throughput
- A future-proofing philosophy that means every Simulix HP and HQ model can be upgraded to Evolution standard, so extending the economical life of each system
- The option of adding Oncentra™ ConeBeam to turn your simulator into a powerful CT system that can serve all your clinic's needs

Optimal workflow

Another benefit of stepping up to the Simulix Evolution is the imaging workstation that is designed with optimal workflow in mind. The workstation ensures all key information is instantly accessible via one, single screen. The intuitive design of the user interface incorporates Microsoft® Windows® elements and comprises a specially designed control layout that facilitates the fast and efficient execution of all procedures. These user-friendly benefits mean clinicians quickly become familiar with the system and result in increased patient throughput, so improving efficiency. Most importantly, it makes it easier for clinicians to focus on the particular procedure and patient.

Fast-track plan validation

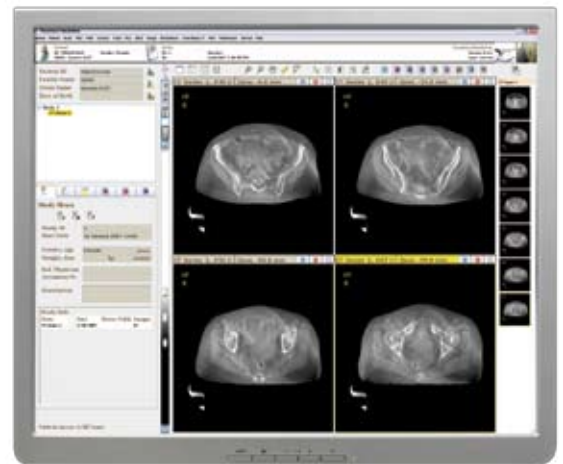
Accurate positioning and reproducibility are critical in IMRT; and with the Simulix Evolution, they can be easily verified before treatment starts. Not only can the Simulix Evolution import 3D treatment plans and digitally reconstructed radiographs (DRRs) from compatible treatment planning systems, it can also initiate field positions and verify MLC settings automatically.

Electronic simulation

The Simulix Evolution's Electronic Simulation makes it easier than ever before to establish simulator treatment fields accurately. Electronic Simulation enables clinicians to adjust treatment fields digitally, based on current images, changing collimator and table positions at the click of a mouse button. The Simulix Evolution automatically adjusts to the new set-up positions for reimaging, which not only enables the user to increase his or her level of control, but also helps to reduce clinician time and the radiation dose received by the patient.

3D imaging

Thanks to the Simulix Evolution's amorphous silicon detector, it is also possible to turn this class-leading simulator into a class-leading CT acquisition system as well. Oncentra ConeBeam is an optional software package that enables the Simulix Evolution to acquire and reconstruct CT images from 3D isotropic data, enabling your Simulix Evolution to perform conventional and CTAssisted simulation – all on the same machine. With Oncentra ConeBeam, you can view 3D CT-quality images immediately and directly on your Simulix Evolution, with all the benefits of better localization accuracy that this implies. It also saves time, space and cost and offers an easy way to add or expand the CT capacity of your medical center.



Extended life

The Simulix Evolution follows the trusted Simulix design philosophy of enabling users to upgrade their simulator to the latest specification. Clinicians and patients benefit from the latest technologies, while for hospital managers it is a way to maximize return on investment.

Improving patient care

Whether you are looking for a new simulator or simply want to upgrade your existing Simulix, the Simulix Evolution and Evolution Upgrade provide unbeatable benefits. Clinicians get a powerful tool to further improve the accuracy of their procedures. For hospitals, Nucletron's commitment to upgradability ensures a higher return on investment, while patients receive better treatment and spend less time in simulation. All good news in the drive to improve treatment outcomes.



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