



SOFTWARE SOLUTIONS

Software Solutions for Proton Therapy
An uncommon approach to common goals

All cancer facilities, like all patients, are unique

Yet all cancer facilities share the common goal of bringing hope and inspiration to patients in the form of new and promising cancer therapies. For more than 55 years, Varian has led the way in radiation therapies, introducing innovative technologies and software solutions that have revolutionized the industry and cancer patient care. In just the past few years, Varian has made significant advances in software solutions in the field of proton therapy, being the first to provide proton therapy treatment planning for all techniques.

Now, Varian introduces the first and only fully compatible proton therapy software solution from a single vendor. It stands as the crowning achievement in developing a truly integrated, end-to-end solution that synchronizes all proton therapy activities. Even more, Varian has again raised the bar in the development of next- and future-generation radiotherapies.

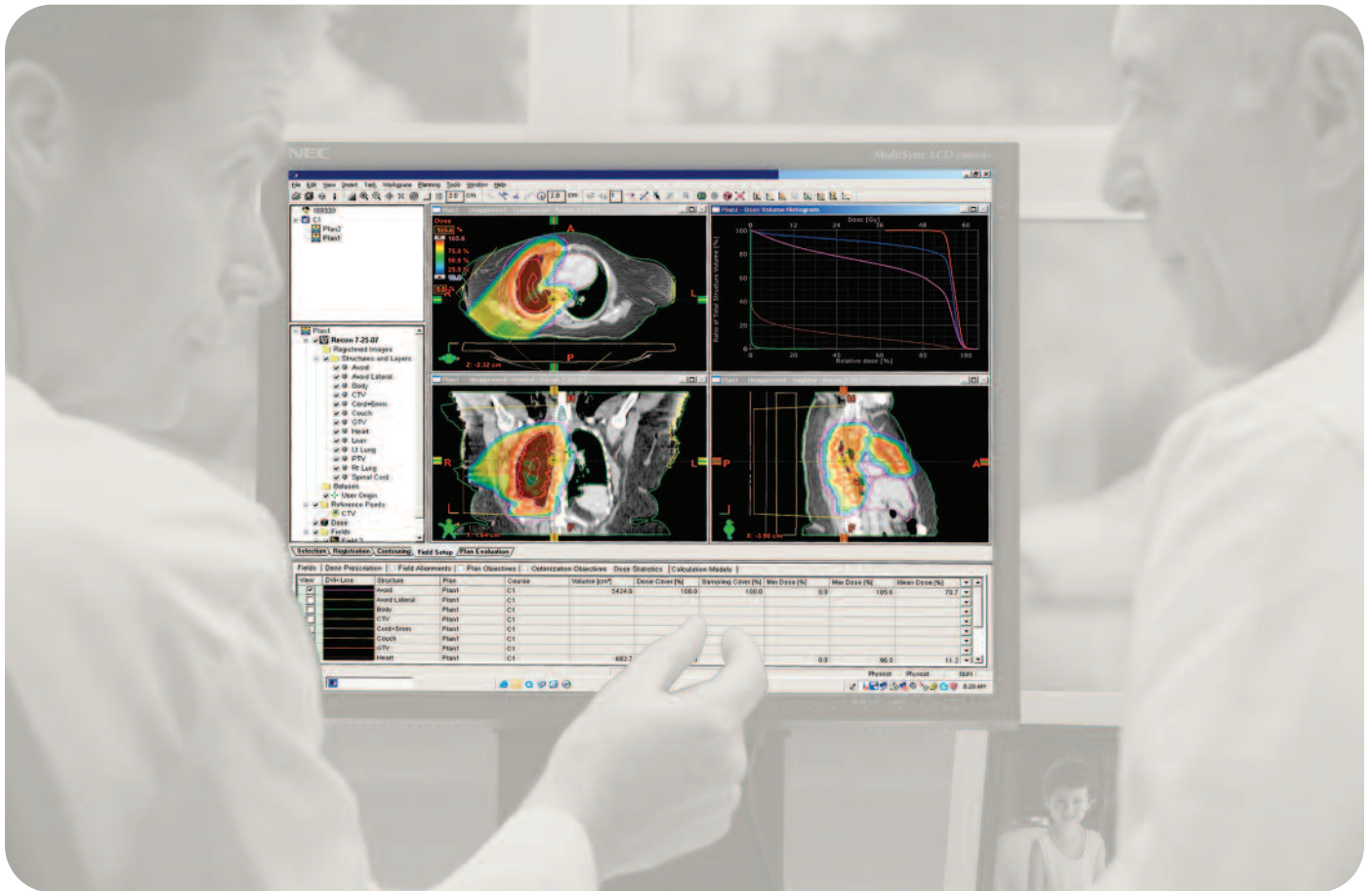
Integral to the viability of our software solution for proton therapy are the Eclipse™ treatment planning system and the ARIA™ oncology information system, Varian products that have long been associated with significant advancements in radiation therapy. Together, they bring about complete data integration to improve the speed and accuracy of treatment decision-making, streamline workflow efficiencies, improve resource management, and optimize patient care.

Ultimately, by choosing Varian's fully integrated software solution for proton therapy, cancer facilities can significantly improve the level of patient care without sacrificing treatment integrity.





Eclipse proton planning combines the latest in fast, accurate proton calculation algorithms with the power of the Eclipse treatment planning system to create a single system for proton, photon, electron, and brachytherapy planning.



The Eclipse treatment planning system supports advanced processes such as image-guided proton therapy (IGPT) and intensity-modulated proton therapy (IMPT), with the ability to adapt to evolving proton therapy technologies. State-of-the-art proton calculation algorithms used in treatment planning give Eclipse the flexibility to support a variety of proton beam lines as well as ocular planning. Clinicians can quickly and accurately customize proton treatment plans to ensure precise delivery to any disease site, with minimal healthy tissue damage.

Powerful automatic, semiautomatic, and intuitive manual contouring tools within Eclipse reduce structure segmentation time from hours to minutes. And clinicians can accurately define targets and organs at risk on coregistered multimodality images with advanced drawing and editing capabilities.

From initial commissioning to the routine quality assurance of treatment plans, Eclipse delivers a wide range of powerful tools and capabilities that simplify and accelerate proton treatment planning tasks.

Eclipse

- State-of-the-art algorithms
- Powerful contouring tools
- Automatic field setup
- Multimodality imaging
- Open system
- Integrated environment
- Multiple technique support
 - Ocular proton planning
 - Double/single scattering
 - Uniform scanning
 - Pencil beam scanning, including:
 - Spot/raster scanning
 - Intensity-modulated proton therapy (IMPT)
 - Image-guided proton therapy (IGPT)
- Quality assurance tools

The ARIA oncology information system aggregates up-to-the-minute digital images and patient data into a single, organized, oncology-specific electronic medical record (EMR)—the emerging standard for managing patient information across networked treatment environments.



The ARIA oncology information system provides on-demand access to complete treatment histories—at the point of care or remotely—for patients undergoing medical treatments or proton radiation therapies.

At the core of the ARIA connectivity solution is the Information Exchange Manager (IEM) interface engine. IEM combines sophisticated logic, flexible configuration settings, and industry-standard HL7 messages. ARIA addresses and solves the connectivity challenges of exchanging patient information between HIS, RIS, and other ancillary departments such as pathology, pharmacy, and laboratory. ARIA retrieves and stores data-intensive digital images from and to PACS via DICOM or DICOM-standard protocols.

To move radiation therapies ever closer to more personalized adaptive treatment strategies, I-Response allows clinicians to assess cellular and metabolic activity in tumor tissue and quantitatively track changes over multiple time points as the tumor responds to therapy. Equicare CS, case management software for cancer survivorship, creates a direct link between cancer survivors, caregivers, and treatment facilities, empowering survivors and caregivers to play active roles during recovery.

ARIA

- Medical and radiation oncology and proton therapy support
- Decision support
- Multimodality imaging review
- Radiation and chemotherapy prescribing
- Radiation treatment QA
- Clinical trials management
- Pharmacy ordering and dispensing
- Outcomes analysis
- HL7/DICOM support
- Billing/cancer registry
- Tumor treatment assessment
- Case management for survivorship