

Eclipse™ Treatment Planning System for Proton Therapy v13.7 Key Features

Standard	New Feature/Enhancement Description
Field-Specific Target	Field-Specific Target creates a target structure for each treatment field to compensate for the effect of setup error, internal target motion, and range uncertainty around the clinical target volume (CTV). The algorithm takes into consideration the heterogeneities along the beam path creating an optimal target for each treatment field.
New Proton Optimizer	<p>Harmonizes the optimization interface across the proton and photon planning application, as well as provides additional feature support for intensity-modulated proton therapy (IMPT).</p> <p>Ability to use biological objectives during optimization:</p> <ul style="list-style-type: none"> • Mean objectives • Equivalent uniform dose objectives <p>Provides enhanced optimization information:</p> <ul style="list-style-type: none"> • Structure optimization cost • Objectives cost function information • 2D dose visualization • Automatic optimization mode
Robust Optimization	<p>Bases optimization on patient CTV to maintain both target coverage and acceptable organ-at-risk (OAR) sparing while taking the various uncertainties into consideration.</p> <p>Increases OAR sparing without compromising target volume.</p> <p>Supports both single- and multi-field optimization.</p> <p>Addresses key planning issues:</p> <ul style="list-style-type: none"> • Patient positioning uncertainties • Range uncertainty (Uncertainty on the image density and/or proton stopping power calibration curve) • Intra- and inter-fraction motion uncertainty • Robustness of junctions between two or more fields
Scripting API	<p>Expands feature-rich API interface to support proton planning.</p> <p>Provides the user with the ability to create site-specific scripts to assist in planning, QA, data mining, and research.</p>
Purchasable Option	New Feature/Enhancement Description
Acuros® PT Advanced Dose Calculation for Proton Therapy	<p>Incorporates the impact of heterogeneities and treatment accessories during dose calculation using state-of-the-art proton Monte Carlo algorithm.</p> <p>Key features:</p> <ul style="list-style-type: none"> • Calculate dose deposition kernel • Support range shifter • Support aperture (block/MLC) • Eclipse Proton Monte Carlo code validated against MCNPX • Energies: 68 MeV - 250 MeV

Specifications are subject to change without notice. Not all features or products are available in all markets.

VARIAN | A partner for **life**
medical systems

© 2015 Varian Medical Systems, Inc. All rights reserved. Varian, Varian Medical Systems, and Acuros are registered trademarks, and Eclipse is a trademark of Varian Medical Systems, Inc. All other trademarks are the property of their respective owners.

RAD 10401

USA Headquarters, California

Varian Medical Systems
Palo Alto, CA
Tel: 650.424.5700
800.544.4636
Fax: 650.493.5637
varian.com

**Headquarters Europe, Eastern
Europe, Africa, Middle & Near East**

Varian Medical Systems
International AG
Cham, Switzerland
Tel: 41.41.749.8844
Fax: 41.41.749.8899
email: info.europe@varian.com

10/2015