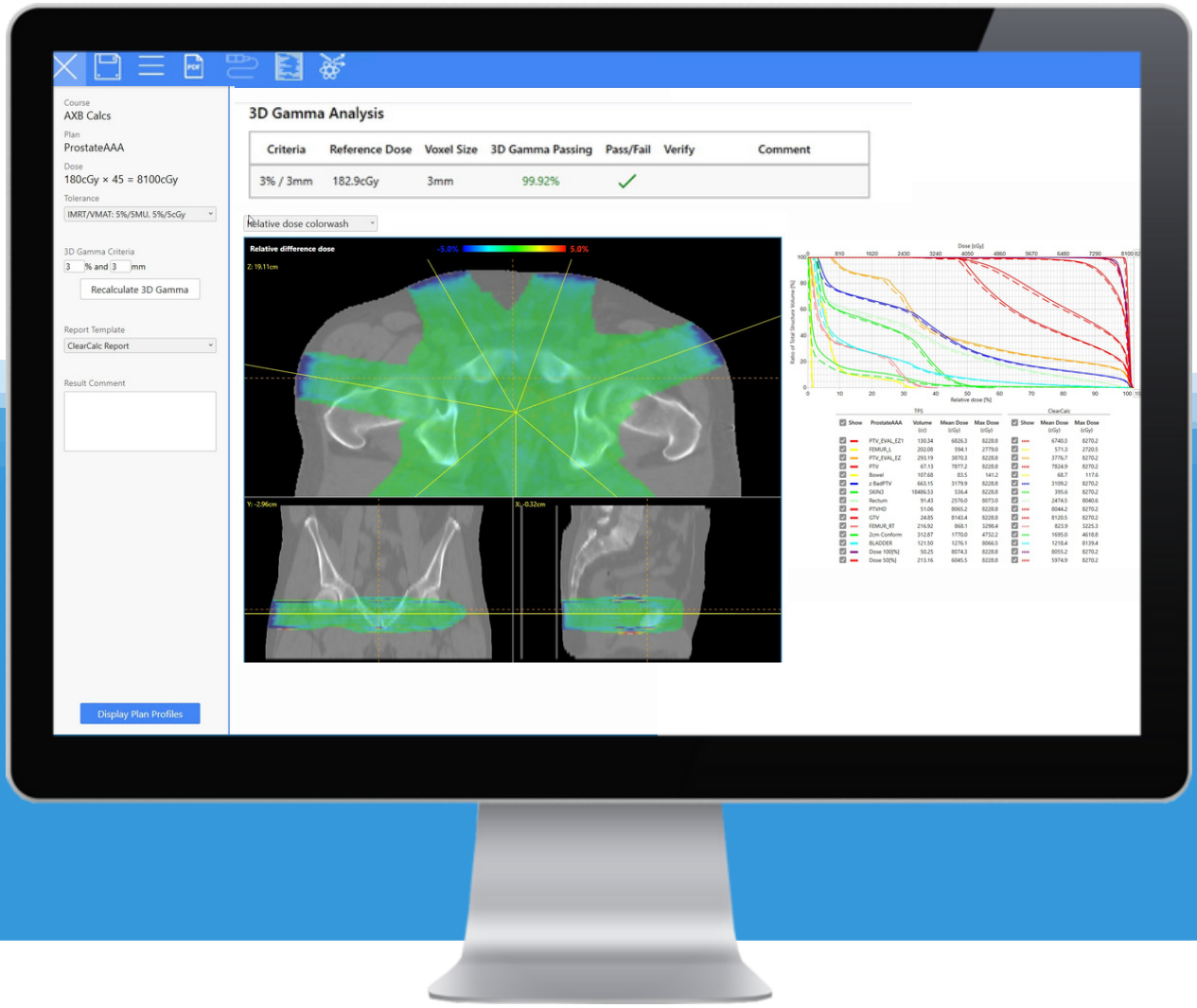
ClearCalc

INDEPENDENT CALCULATION SOFTWARE



Intelligent Automation in Cancer Care

RAD formation

Intelligent secondary plan validation.

ClearCalc® is a secondary calculation software that independently verifies the accuracy of your treatment plan dose calculation. With support for photons, electrons, protons, and brachytherapy, results are quickly calculated and displayed on a user-friendly interface.

ClearCalc can be accessed as a Varian Eclipse Treatment Planning System (TPS) scripting plugin via ClearCheck® or as a Windows executable application, allowing full access for all users.

For clinicians. By clinicians.

ClearCalc was developed by physicists as an independent secondary monitor unit (MU) calculation to instantly verify treatment plan accuracy. With seamless ClearCheck integration, users obtain results without launching separate software. For those with other TPSs, DICOM exports allow for quick evaluation. Results may be automatically appended to the ClearCheck final plan report or printed to PDF, making documentation needs effortless.

Have confidence in your calculations and automate your plan evaluation workflow.

Schedule a Demo

ClearCalc

Rest assured knowing your plan calculations are accurate.

Multi-Modality Compatibility

Automated Calculation Point Selector

Eclipse Integration

Direct ClearCheck Reporting

Tissue Heterogeneity Correction

Trajectory/Log File Analysis

Monte Carlo Algorithm

*Requires RadMonteCarlo

Full 3D Gamma Analysis

*Requires RadMonteCarlo

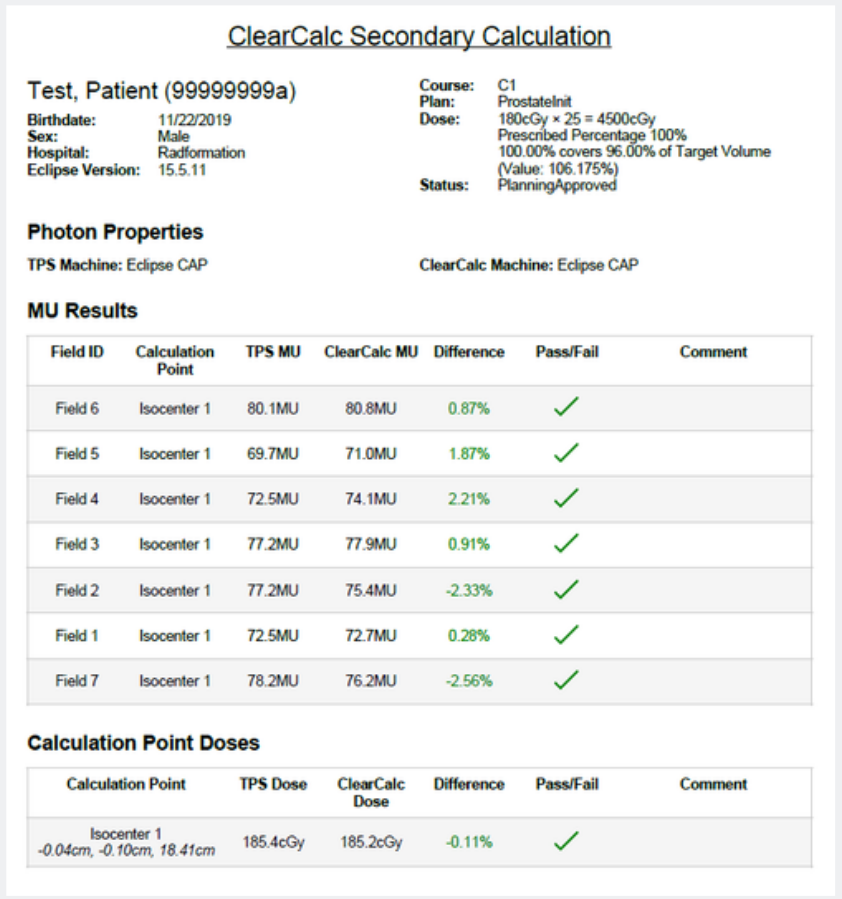
Seamlessly Launch ClearCalc

Direct Eclipse Integration via ClearCheck

With the option for direct integration with Eclipse and ClearCheck, ClearCalc takes automating plan evaluation one step further by providing instant processing of secondary plan calculations and eliminating the hassle of importing or exporting DICOM plans. Customizable ClearCalc results can be automatically added to the ClearCheck report for the final plan printout with a single click.

Standalone Application

For users without Eclipse, a standalone ClearCalc application accepts DICOM plan files from multiple treatment planning systems. ClearCalc works with BrainLab, Accuray, ViewRay, Monaco, Oncentra, VariSeed, RayStation, Pinnacle, and more.



ClearCalc Secondary Calculation

Test, Patient (99999999a)

Birthdate: 11/22/2019
Sex: Male
Hospital: Radformation
Eclipse Version: 15.5.11

Course: C1
Plan: ProstateInit
Dose: 180cGy × 25 = 4500cGy
Prescribed Percentage 100%
100.00% covers 96.00% of Target Volume
(Value: 106.175%)
Status: PlanningApproved

Photon Properties

TPS Machine: Eclipse CAP

ClearCalc Machine: Eclipse CAP

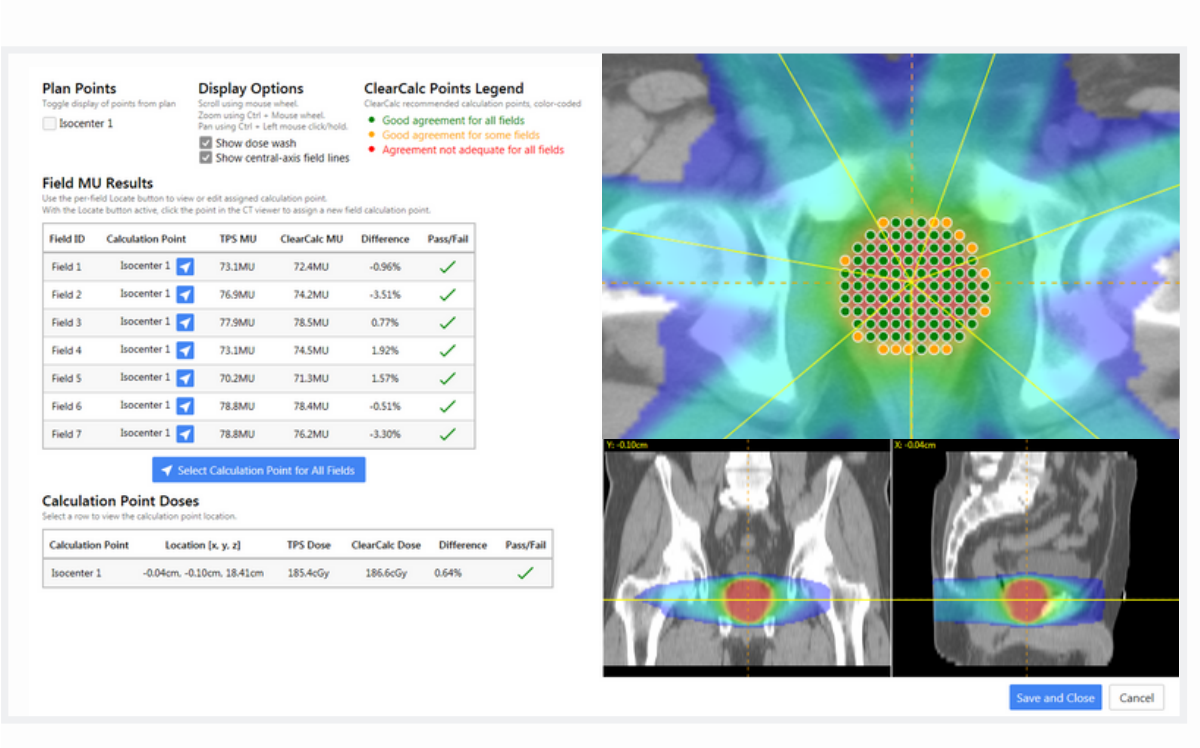
MU Results

Field ID	Calculation Point	TPS MU	ClearCalc MU	Difference	Pass/Fail	Comment
Field 6	Isocenter 1	80.1MU	80.8MU	0.87%	✓	
Field 5	Isocenter 1	69.7MU	71.0MU	1.87%	✓	
Field 4	Isocenter 1	72.5MU	74.1MU	2.21%	✓	
Field 3	Isocenter 1	77.2MU	77.9MU	0.91%	✓	
Field 2	Isocenter 1	77.2MU	75.4MU	-2.33%	✓	
Field 1	Isocenter 1	72.5MU	72.7MU	0.28%	✓	
Field 7	Isocenter 1	78.2MU	76.2MU	-2.56%	✓	

Calculation Point Doses

Calculation Point	TPS Dose	ClearCalc Dose	Difference	Pass/Fail	Comment
Isocenter 1 *-0.04cm, -0.10cm, 18.41cm*	185.4cGy	185.2cGy	-0.11%	✓	

Custom Point Selection

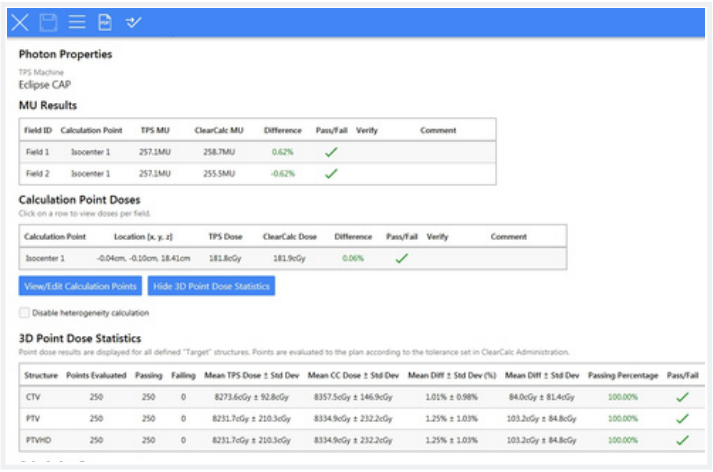


With ClearCalc's custom point selection tool for photon plans, an optimal calculation point is chosen automatically, avoiding heterogeneities and dose gradients. Alternatively, with a number of points generated and viewable on the patient's CT within ClearCalc, selecting a point that makes the most sense for your department is simple. Just hover over alternative points, review point performance at-a-glance, and make your selection.

Point dose statistics are calculated for any target volumes and user-selected structures, providing valuable information beyond a single point comparison.

One Platform For All Your Second Check Needs

Photon Module

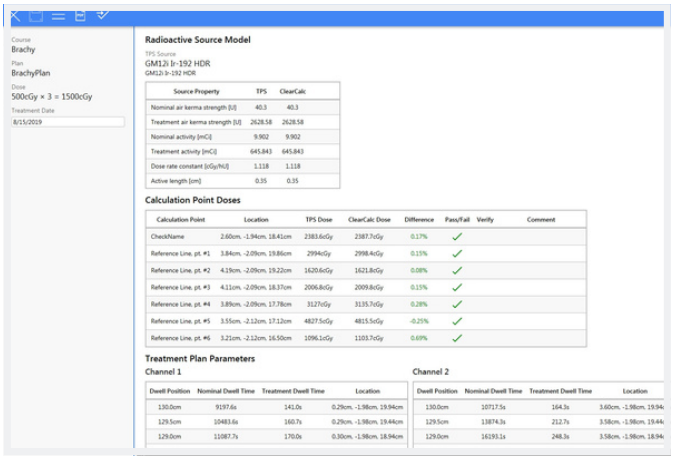


ClearCalc supports a full complement of clinical techniques, including 3DCRT, IMRT, VMAT, SBRT, SRS, virtual/dynamic wedges, and more. The hand calculation module allows for quick, manual verifications when needed.

The native custom finite-sized pencil beam (FSPB) algorithm ensures that calculations are fast and accurate, fully accounting for tissue inhomogeneities. The optional RadMonteCarlo module expands on the base ClearCalc functionality with extremely fast gold standard secondary Monte Carlo calculations and volumetric comparisons.

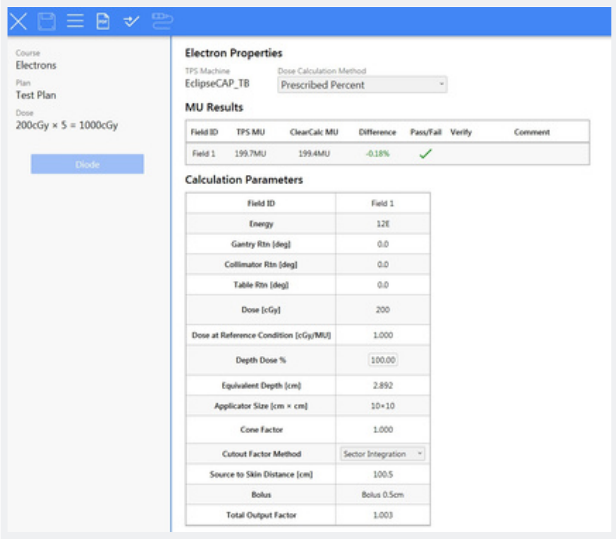
Brachytherapy Module

ClearCalc uses calculation methods outlined in AAPM TG-43. Incoming reference points are calculated and results are easy to interpret. Applicators, dwell positions, and dwell times are displayed for verification. User may now allow ClearCalc to automatically decay to a set treatment date for nominal sources.



One Platform For All Your Second Check Needs

Electron Module

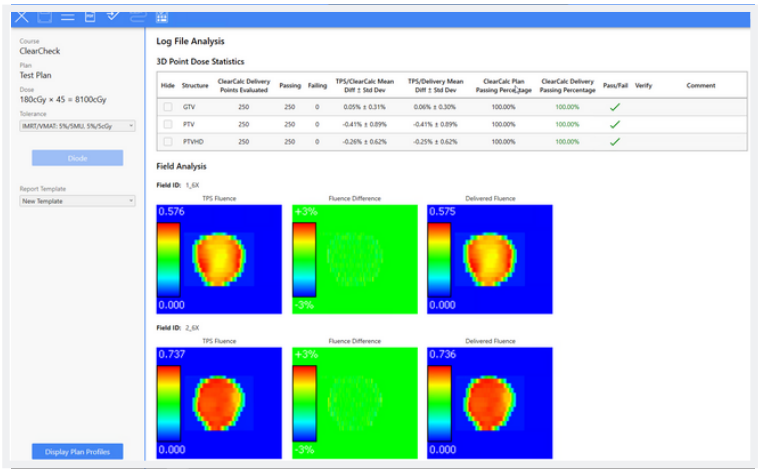


Electron plan evaluation is made simple using ClearCalc. Compute field doses to a prescribed percentage or choose a reference point. For cutout factors, users have the option to include the manual entry for each calculation, use ClearCalc's automated sector integration, or create a cutout factor library with specific cutout codes.

Quickly add another layer of accurate calculation with RadMonteCarlo.

Trajectory and Dynalog File Analysis

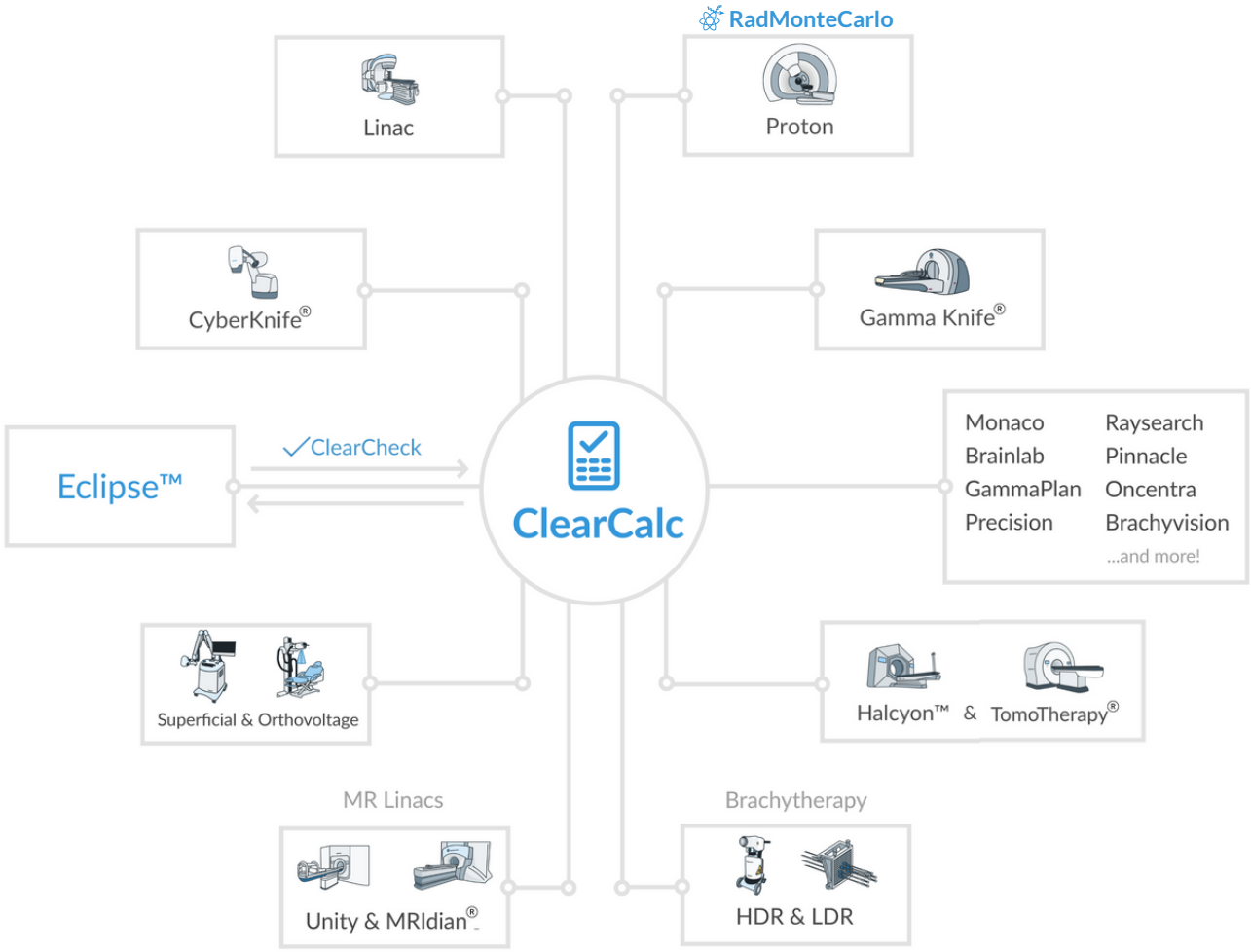
Verify your patient-specific QA agreement from within ClearCalc using machine log file-based IMRT QA—without the Phantom.



A Single Solution For All Machines in Your Department

ClearCalc provides fast and accurate independent calculation for a number of machines and treatment planning systems. Built for routine and challenging clinical plans alike, ClearCalc combines fast dose calculation with an intuitive design to make finalizing treatment plans easier than ever.

ClearCalc offers flexibility in mixed environments and is compatible with virtually any machine in your department, including CyberKnife, Gamma Knife, MRIdian, Elekta Unity, TomoTherapy, Halcyon, and scanning Proton Systems. ClearCalc works with nearly all treatment planning systems, including Eclipse, Monaco, RaySearch, Pinnacle, and Brainlab.



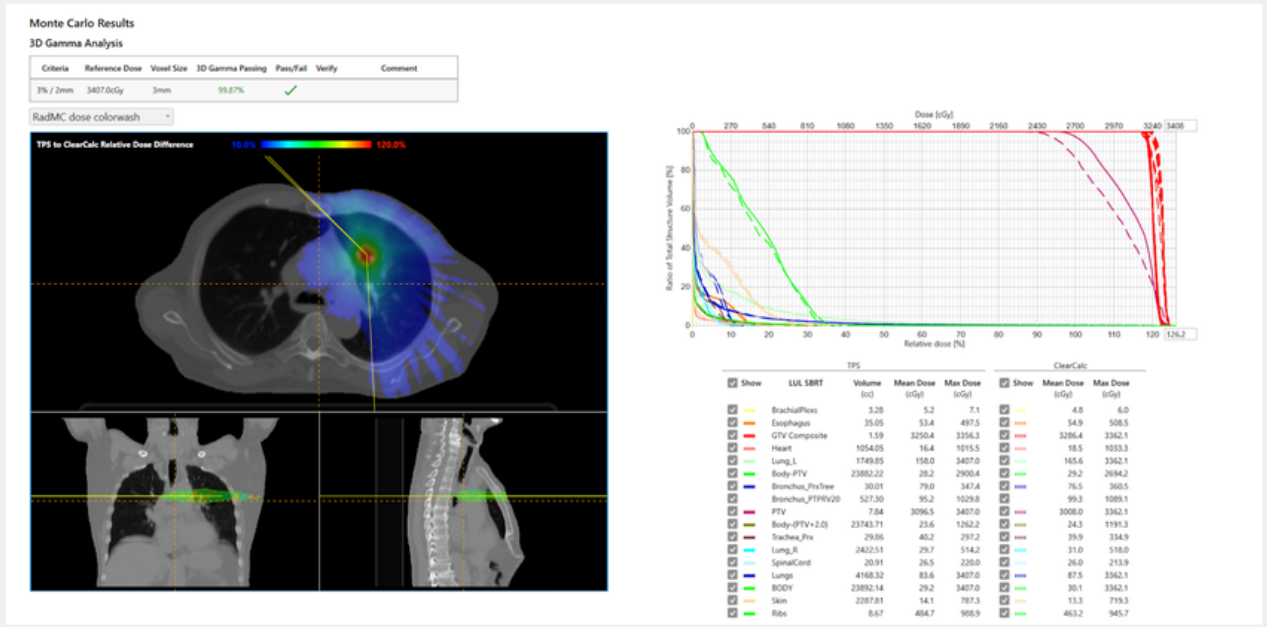
NEW!

RadMonteCarlo™

Monte Carlo Secondary Calculation Software

RadMonteCarlo is an optional add-on to ClearCalc and is not included in a standard ClearCalc purchase. ClearCalc is a prerequisite to RadMonteCarlo.

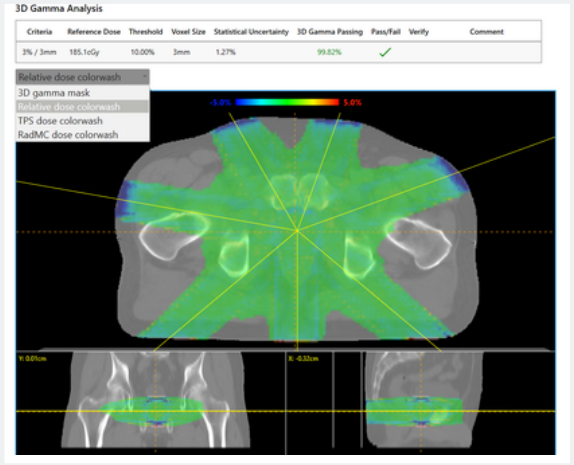
Combining fast dose calculation times with an intuitive design, RadMonteCarlo is built for routine and challenging clinical situations alike. An optional upgrade to the ClearCalc interface, RadMonteCarlo is a powerful Monte Carlo dose calculation tool that delivers incredibly accurate results faster than ever before.



RadMonteCarlo: Secondary Calculation Software

Why choose between speed and accuracy? Get the best of both worlds RadMonteCarlo. With the goal of calculating most clinical plans in under two minutes,* RadMonteCarlo delivers gold-standard calculations for photon, electron, and proton plans.

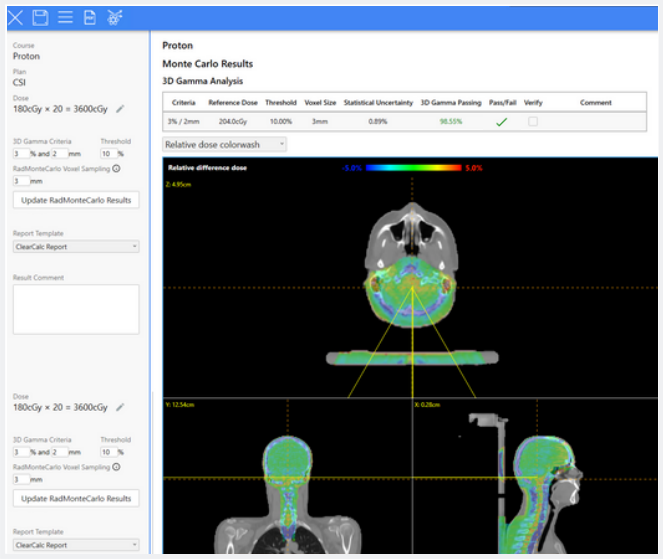
*Actual speed may vary and is dependent on plan field parameters, user upload/download speeds, and other possible variables.



A full 3D volumetric calculation provides comprehensive plan information that includes a 3D gamma analysis and a recalculated DVH for contoured structure comparison. With a 3-view CT with viewing options for Relative Dose Comparison, TPS Dose, RadMonteCarlo Dose, and 3D Gamma Mask, users have more visibility and control when analyzing the accuracy of their plan.

Proton Module

ClearCalc with RadMonteCarlo is available as an optional upgrade for proton therapy systems with modulated scanning beams. RadMonteCarlo proton calculations model both continuous and discrete interactions and converts the patient geometry to water using a hospital-specific conversion table. The fast dose calculation and intuitive design provide the accurate results you need to confidently deliver your most robust proton plans safely and efficiently.



Enhance and streamline your secondary calculations with ClearCalc and RadMonteCarlo.

- Full integration with Eclipse and ClearCheck streamlines planning workflows
- Accepts DICOM imports from multiple TPS vendors and machine types for flexibility in mixed environments
- Fast and accurate add-on Monte Carlo algorithm for gold-standard calculations
- 3D point dose statistics are calculated for target structures and any user-selected structures, providing insight into structure analytics
- Supports photons, protons, brachytherapy, electrons, superficial/orthovoltage, and more in a single solution

Schedule a Demo

ClearCalc simplifies workflows and gives users confidence in their final treatment plans, saving departments time and streamlining plan evaluation.

info@radformation.com

RAD formation

www.radformation.com

CCLPT20220824