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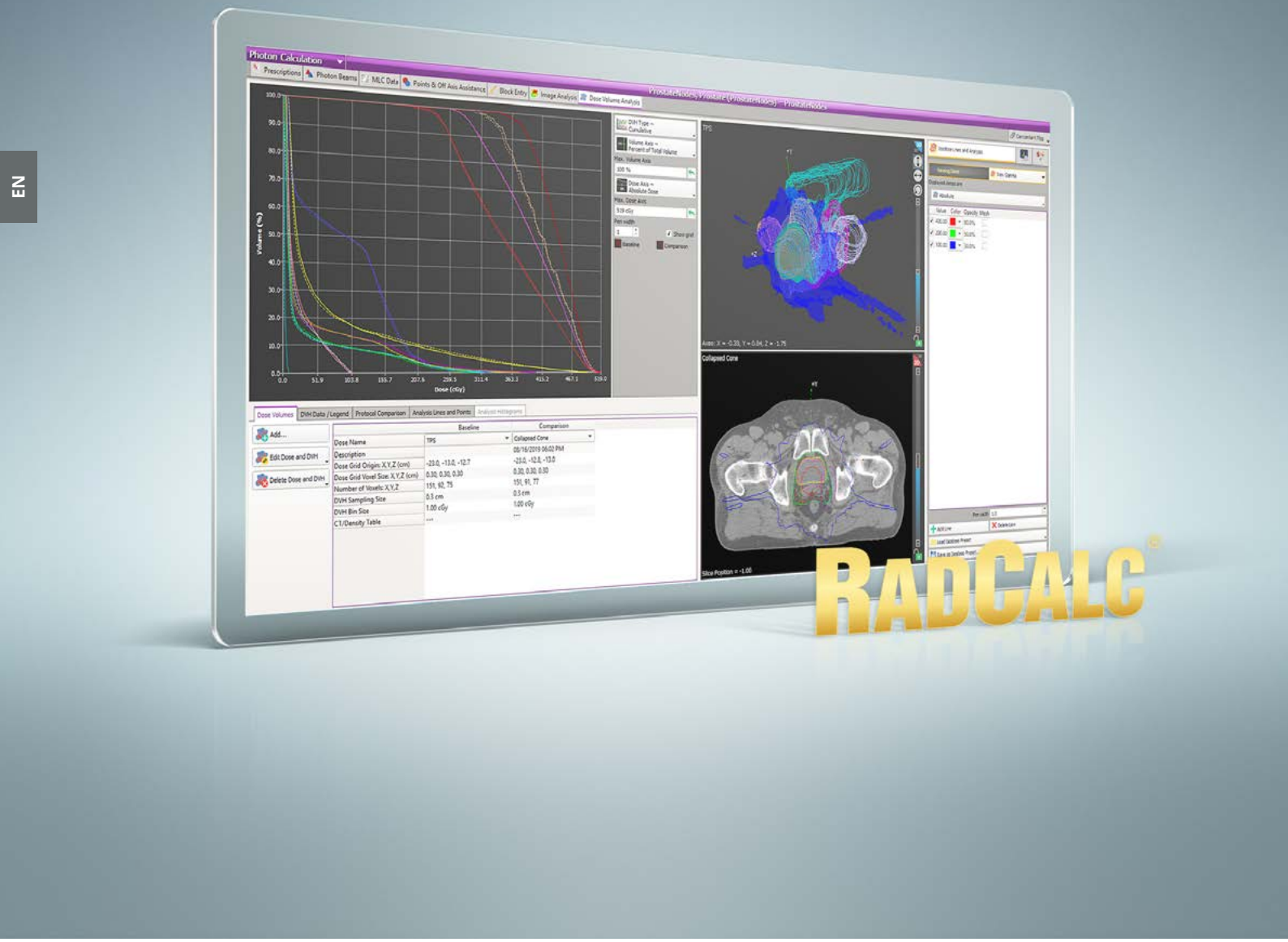

RADCALC®

Introducing RadCalc Version 7.1.2.0 3D Dose Volume QA Software

Quality Assurance by LAP
RadCalc® – A Part of LAP

RADCALC®

Monte Carlo Algorithm and Collapsed Cone Modules

AVAILABLE AS PURCHASABLE LICENSED OPTIONS

RadCalc 7.1.2.0 provides Collapsed Cone Convolution Superposition or Monte Carlo based algorithm modules that deliver fast, easy, and accurate 3D Dose Volume verification for most commonly used treatment planning systems. Utilizing a patient's planning CT for calculations; RadCalc's 3D functionality offers verification for 3D, IMRT, VMAT, and SRS/SBRT plans. Dose throughout the treatment volume is verified with RadCalc thus increasing patient safety and plan quality by enhancing your ability to more accurately verify complicated treatment plans. RadCalc 7.1.2.0 is compatible with Elekta, Siemens and Varian® machines.

RadCalc's 3D functionality includes RadCalcAIR (Automated Import & Report) providing a fully automated process with Percent difference, DVH, Gamma, Distance to Agreement analysis tools. RadCalc's fully automated process immediately alerts you to plans that fail to pass your pre-set Gamma Analysis acceptance criteria. Additionally, RadCalc automatically checks whether DVH objectives are met for critical structures using both the TPS and RadCalc's 3D dose. Any number of DVH protocols can be loaded and compared to one another from one analysis screen within RadCalc. Analysis reports are automatically attached to your verified plan and sent to your workstation via email or to a directory of your choice on your server.

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Sales & Technical Support EMEA and APAC : +1-903-207-4298

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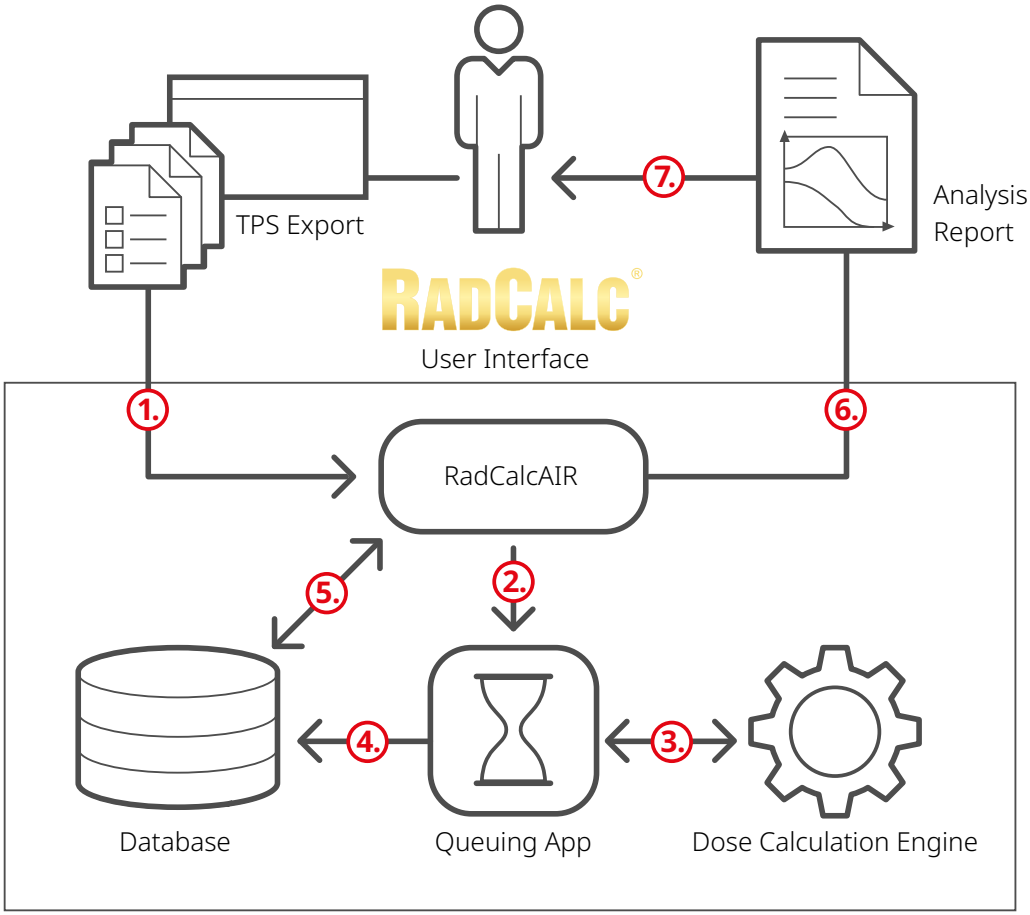
AUTOMATED VERIFICATION WORKFLOW



1. Export TPS plan via DICOM RT
2. RadCalcAIR receives plans and sends to Queuing App and then continues processing more plans
3. Queuing App sends plan to Dose Calculation Engine and monitors the dose computation process
4. Queuing App stores result in the database
5. RadCalcAIR monitors database for completed calculations
6. RadCalcAIR generates Analysis Reports to be emailed to designated users or stored in designated directory for user to review at their convenience
7. Plans that do not pass preset criteria are identified and can be investigated by the user with Analysis Tools

RadCalc Version 7.1.2.0 is the most comprehensive QA software available today

100'S OF CLIENT REQUESTED FEATURES ARE INCLUDED IN EACH PACKAGE

RadCalc's 3D Monte Carlo module employs the most established Monte Carlo dose engine available (BEAMnrc) and also utilizes proprietary machine modelling acquired from McGill University.
Monte Carlo is widely recognized as the gold standard dose calculation method. The most challenging clinical cases and complex structures are analysed with the highest accuracy and confidence.
Flexible implementation options and the uncompromised accuracy of a Monte Carlo dose calculation algorithm assist radiation oncology departments to meet their workflow requirements.
Calculation speed ranges from 3-10 minutes when utilizing the recommended workstation configuration. The size of target, not the type of treatment plan, is the primary determiner of the time to calculate the secondary check.
RadCalc offers many 3D analysis tools to assist the end user. Some of them include:

- Percent Difference
- Distance to Agreement
- DVH Analysis
- Gamma Analysis

RadCalc installations are flexible and scalable and can support one or more institutions from a centralized server. Each software package includes measured data commissioning for two machines and full tech support for one year. Collapsed Cone and Monte Carlo commissioning is an automated process within RadCalc performed by the end user. Additional yearly maintenance renewals can be purchased after the first year.

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SELECTION OF SUPPORTED TREATMENT TECHNIQUES
2D/3D Conventional
IMRT/Compensator Base IMRT
VMAT
Electrons
SRS, SBRT
CyberKnife®
3D Dose Volume Brachytherapy module w/DVH, DTA, Gamma Analysis tools
Superficial and Diodes
Single Point TomoTherapy® module
Single Point Gamma Knife module

KEY FEATURES OF RadCalc

FAST
A fully automated import and export is much faster than manual entering of the necessary parameters. Thus it prevents human transcription errors.

ACCURATE
Studies have shown the verification dose to be within ± 3 % of the treatment plan dose providing unsurpassed accuracy.

SAFE
RadCalc has FDA 510(k) clearance and is a certified medical product for the European market. (CE Mark)

V & R TRANSFER VALIDATION
The Plan Comparison Tool is designed to detect errors in a verify and record system due to data transfer or manual entry errors.

EASY INSTALLATION
RadCalc program can be installed on workstations, client server environments, virtual operating systems, e. g. Citrix, VMWare. The Collapsed Cone and Monte Carlo dose engines require a separate GPU/CPU computer respectively, not sold by LAP.

EASY
Due to its highly user-friendly interface, the software is easy to use. Clear structure, guided menus, sophisticated layout make the recurring tasks simple and time-saving.

POWERFUL
Most common treatment plans can be verified with RadCalc QA software. Comprehensive analytical features provide physicists with powerful tools for plan analysis. 100's of client requested features have been added through the years.

TIME-SAVING
What commonly* takes 30–60 minutes/patient to verify a treatment plan MU dose is now reduced to 3–10 minutes.

VENDOR INDEPENDENT
RadCalc provides the opportunity to check all results independently from the manufacturer's TPS. This ensures unbiased third party validation.

*Refers to film or ion chamber dose verification methods consisting of room setup, delivery, and dose confirmation.

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RADCALC®

GENERAL REQUIREMENTS
Operating System: Microsoft® Windows® 7, 8, 8.1, 10, 32-bit and 64-bit operating systems
Processor: Intel i5 or equivalent
Memory: (RAM) 4 GB
Video: Minimum resolution 1024×768 and minimum 1 GB video memory (RAM)
Graphics: OpenGL 1.1 support required
Hard drive space: 1 GB available. Varies with quantity and type of patient data

RECOMMENDED DOSE ENGINE HARDWARE SPECIFICATIONS COLLAPSED CONE MODULE
Operating System: Windows 64-Bit OS (8, 10, Server 2012, 2016, or 2019)
GPU: NVIDIA GeForce RTX 2080 Ti, or similar (Must be NVIDIA)
CPU: Intel Core i7-9700, 8 Core, 12 MB Cache, or better
RAM: 16 GB or more
Disk: 512 GB SSD or more

RECOMMENDED DOSE ENGINE HARDWARE SPECIFICATIONS MONTE CARLO MODULE
Operating System: Windows 64-Bit OS (8, 10, Server 2012, 2016, or 2019)
CPU: Dual Intel Xeon Gold 5220, 2.2GHz, 3.9GHz Turbo, 18 Core, or better
RAM: 64 GB or more
Disk: 512 GB SSD or more

REQUEST A DEMO

We are ready to build your RadCalc QA package customized to your specific needs. Please contact our sales teams worldwide.

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