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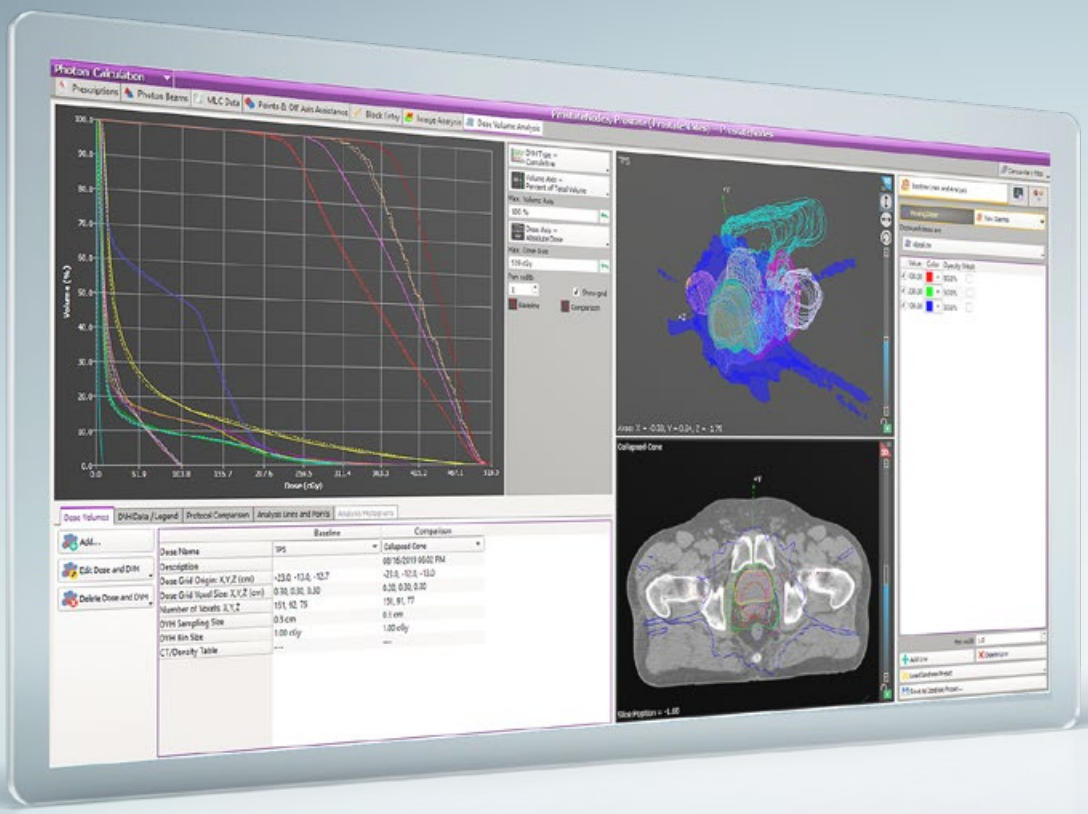


RadCalc Implementation and training packages

RADCALC

Simply Precise

Let us do the busy work!

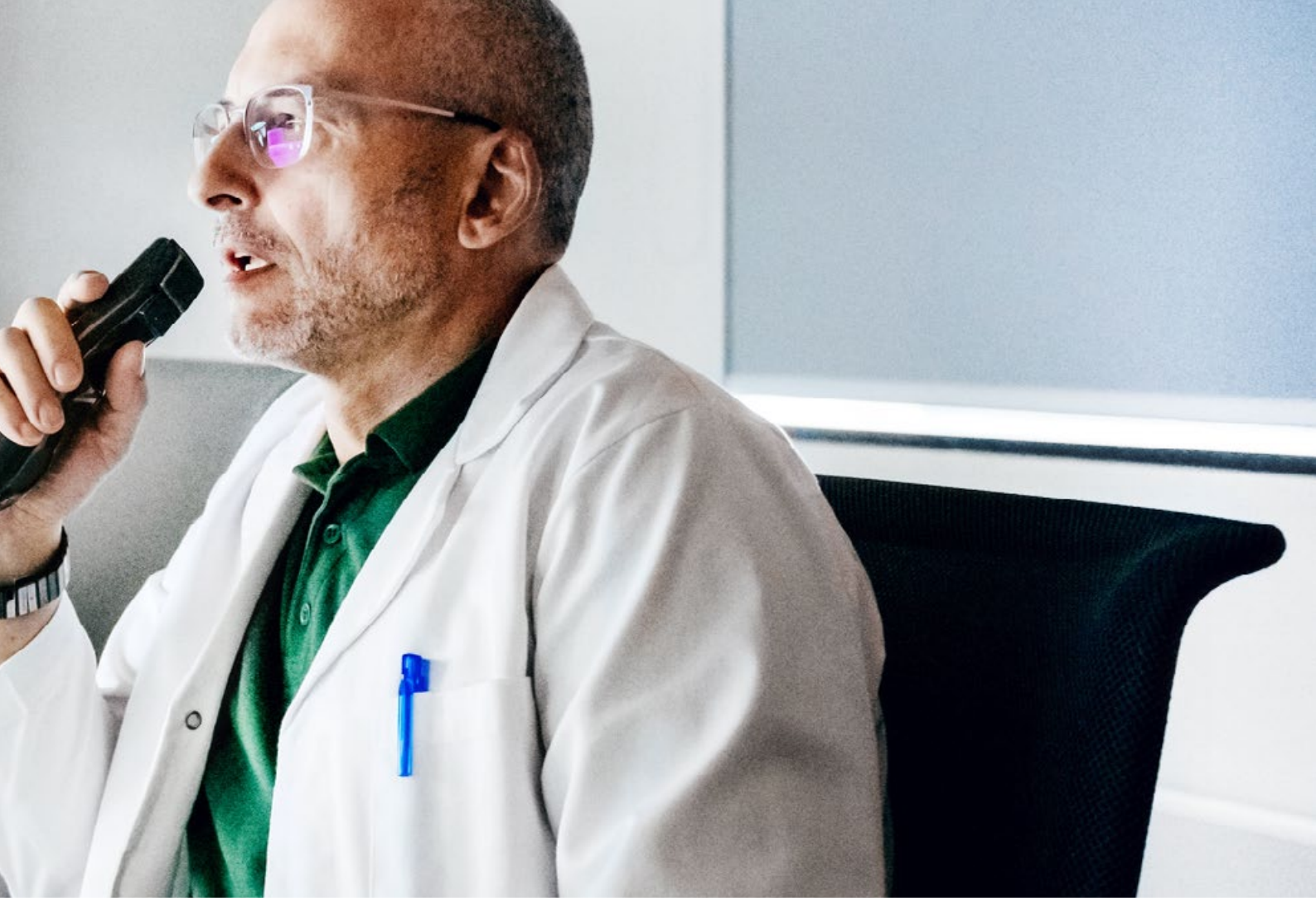
As our planning and treatment delivery abilities increase, so does the time investment of the clinical physics team.

The AAPM Task Group 219 recommends the use of 3D algorithms for patient QA programs, like those found in your treatment planning system. While AAPM Task Group 307 outlines recommendations for configuring EPID dosimetry solutions for patient QA programs.

Both recommendations ensure that these advanced treatment techniques are carried out safely.

Evolving patient QA in your clinic to meet these recommendations doesn't have to mean large investments of time and resources with RadCalc. Our customer success team, consisting of experienced dosimetrists and physicists, will manage this project for you following the Task Group's recommendations.

→ *Our team will work with your clinical physics team to gather key data needed for setup and validation processes. Let us do the busy work for you and deliver a baseline validated system ready for your final clinical validation.*



Reliability

Our customer success team, consisting of experienced dosimetrists and physicists, will manage this project for you following Task Group 218, Task Group 219 and Task Group 307 recommendations.

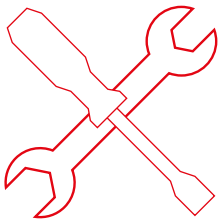
Transparent

Our team will keep the clinical physics team informed of the work being done throughout the baseline validation process. Upon completion of the project, the physics team will receive the validated machine archive along with a summary report showing the results and standard deviations with the patient archives used. A final walkthrough of the patient archives and individual test results will be completed with the clinical physics team.

Accurate

There is no one size fits all when it comes to beam data. With our advanced machine configuration features, our team will use your clinical machine data to provide the most accurate match possible to your physical measurements. Mathematically matching the most advanced treatment planning algorithms used in the field.

Implementation Packages



3D algorithms

Prerequisites:

→ *RadCalc machine configuration*

3D dose kernel creation

Included services

- Validation of existing CT to density tables and import into RadCalc
- Creation of treatment machine with measured output factors in RadCalc
- Validation of key machine parameters for 3D dose validation
- Generation of 3D dose kernels

3D dose kernel validation

Included services

- Initial validation on square water phantom (per machine energy)
  - Three field sizes per energy
    - 3 × 3
    - 10 × 10
    - 20 × 20
  - Points, lines, and profile agreement validated for point dose and VMAT plans
- Kernel validation on oval EASY CUBE phantom on treatment couch structure (per machine energy) according to Task Group 219 recommendations of 3 % @2 mm
  - Four TPS plans per energy
    - AP
    - AP and Lateral
    - IMRT beam
    - VMAT

Final deliverables

Included services

- A baseline validated machine (for all energies) with updated parameters ready for import into your clinical RadCalc environment
- Full set of validation plans used to deliver this baseline validation

*** Final clinical validation is the sole responsibility of the on-site clinical physicist ***

EPID on-site dosimetry configuration

Prerequisites:

→ *RadCalc Implementation Package – 3D algorithms*

EPID dosimetry deconvolution kernel generation following TR-22

Included services

- Perform measurements for EPID dosimetry deconvolution kernel generation
  - Five field sizes per energy
    - For in-vivo five thicknesses will be measured
- Perform basic validation phantom measurement
  - For in-air AP, Lateral and modulated plan
    - For in-vivo additional measurement through phantom
- Generate deconvolution kernels

Final deliverables

Included services

- A baseline validated machine (for all energies) with generated kernels ready for import into your clinical RadCalc environment
- Full set of validation plans used to deliver this baseline validation
- Kernel validation on oval phantom on treatment couch structure (per machine energy) according to Task Group 307 recommendations of 3 % @2 mm (in air) and 5 % @3 mm (in-vivo)
  - Four TPS plans per energy
    - AP
    - AP and Lateral
    - IMRT beam
    - VMAT

*** Final clinical validation is the sole responsibility of the on-site clinical physicist ***

RadCalc training

RadCalc has evolved over the past few years to include many new functionalities in order to be compliant with the recommendations of Task Group 219, Task Group 218 and Task Group 307. With this increase in features and available workflows it is important that our customers get the most out of RadCalc and implement to its full capacity. With the remote and on-site training options, let one of our experienced clinical team members walk you through every piece of the software and answer any questions you have on how each feature can best be utilized in your clinical workflows!

RadCalc training services are separate from both the implementation Services and technical support.

RadCalc 2-hour initial training outline involves the review of the following.

- IFU and reference materials
- Getting to know RadCalc
- Starting RadCalc
- Working with the patient database
- Performing a photon calculation
- Import/export features
- Introduction: What is RadCalc?
- Menus and window components
- Exiting RadCalc
- Working with the calculation list
- Performing an electron calculation
- Other licensed module calculations
- Intended use
- Toolbars and tooltips
- Calculations workflow
- Common calculation items
- Performing an EZ calculation
- RadCalcAIR introduction

3D on-site training outline: Includes all of the above with demonstrations. Additionally, machine configuration process review. 3D modeling requirements and results. TR-6 review. Walk through of calculations. Comparing point dose Clarkson against 3D. Log file analysis against RadCalc fluence. DVA tab. RadCalcAIR.

- Machine configuration review
- 3D calculation workflow
- DVA Tab
- TR-06
- Performing 3D calculations
- RadCalcAIR
- 3D modeling
- Clarkson vs 3D
- Log file/RadCalc fluences

EPID on-site training outline: Includes all of the above with demonstrations. Additionally, machine configuration for EPID review. EPID kernel modeling requirements and results. TR-22 review. Walk through of calculations. Comparing EPID Dosimetry against 3D SDC. Treatment log file calculations 2D and 3D. DVA tab. RadCalcAIR.

- Machine configuration review
- EPID configuration review
- DVA tab
- TR-06
- Performing EPID calculations
- RadCalcAIR
- 3DCC modeling review
- EPID vs 3D
- Log file/RadCalc fluences

About us

LAP is one of the world's leading suppliers of systems that increase quality and efficiency through laser projection, laser measurement, and other processes. Every year, LAP supplies 15,000 units to customers in industries as diverse as radiation therapy, steel production, and composite processing. LAP employs 300 people at locations in Europe, America and Asia.

LifeLine Software, Inc., the developer of RadCalc, is part of the LAP Group. We are driven to improve the lives of those who fight cancer. We help to assure that they are receiving quality treatments. Our goal is to create the highest quality software products. We strive to achieve this goal by our commitment and dedication to continuous improvement of all we do in responding to the needs of our customers for the benefit of the patients and families they serve.

In order to achieve this vision, we look for associates and business partners who share our passion to serve others through their hard work and dedication to excellence in all they do every day. We do our best to create a work environment that encourages our associates to listen to their customers, both inside and outside our company and to deliver results with integrity.

RadCalc is our commitment to responding to the needs of Radiation Oncology health care providers by contributing to the enhancement of the quality of their work, and to the quality of life of their patients. RadCalc was developed by our board-certified physicist to make independent Dosimetric calculation verification accurate, quick, and easy.

Contact us for further information

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

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