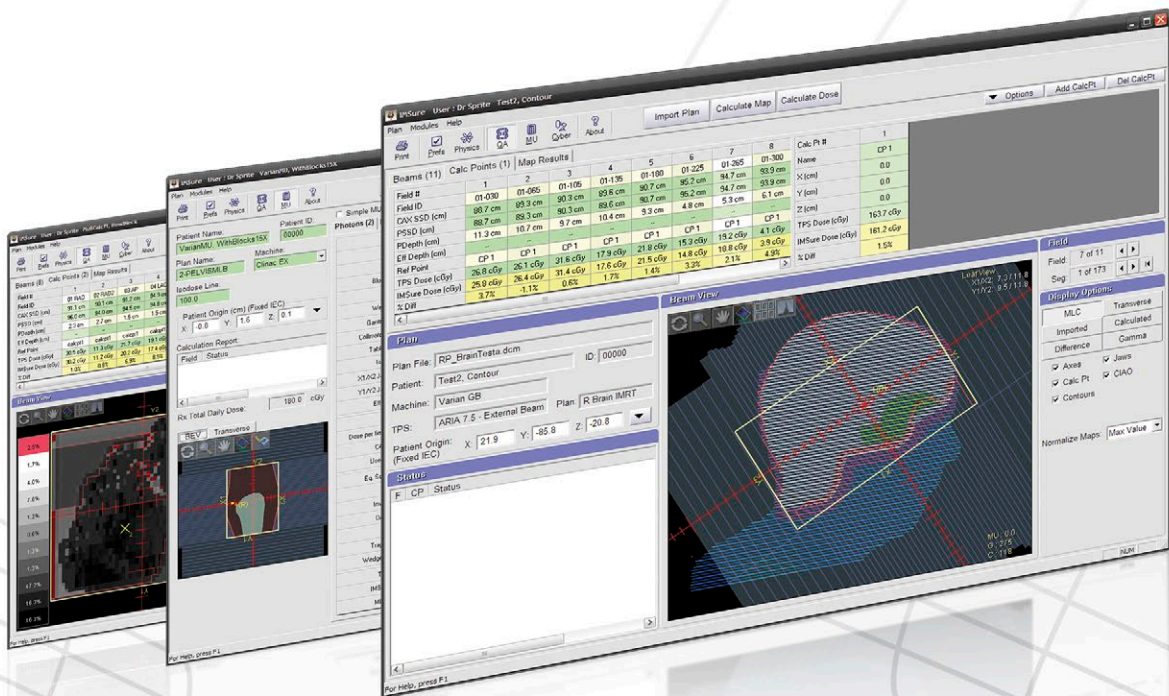


PATIENT DOSIMETRY

PRE-TREATMENT IS JUST THE BEGINNING



IMSURE QA™ SOFTWARE

IMSURE QA™ SOFTWARE

EXPEDITE ACCURATE SECOND CHECKS OF PATIENT PLAN

- Support of VMAT, IMRT and 3D Conformal plan calculations.
- Import of patient images and structure sets allows for automatic effective depth calculations.
- Increase accuracy through use of a 3-Source Model.
- Review using a simple user-friendly, single-page interface

1 — PRIMARY PHOTON SOURCE: TARGET

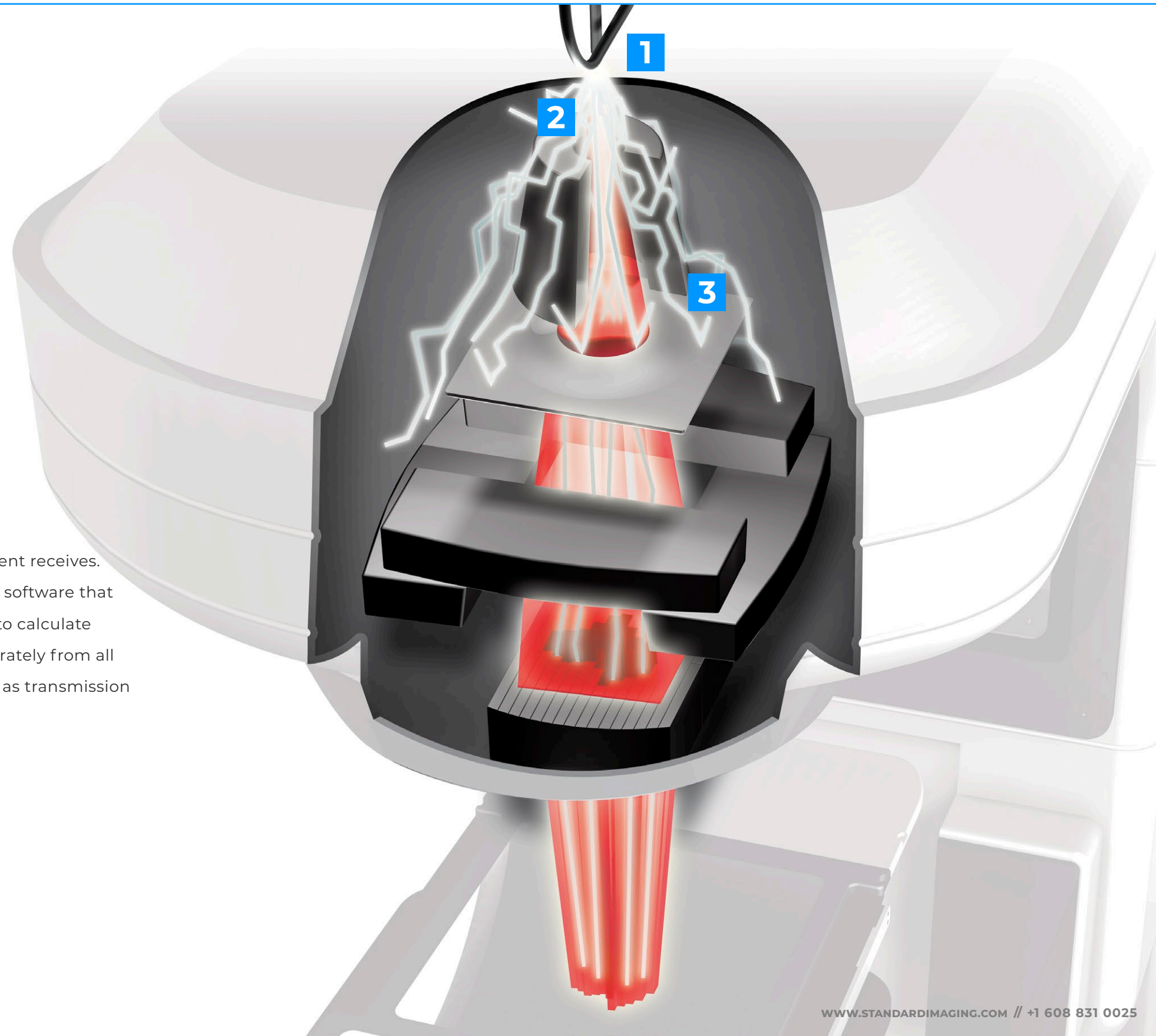
2 — SCATTER PHOTON SOURCE: FLATTENING FILTER

3 — SCATTER PHOTON SOURCE: PRIMARY COLLIMATOR

THE 3-SOURCE MODEL

In this illustration of a linac head, the red beam represents the primary photon source and the white lines show radiation scattered by the primary collimator and the flattening filter. Some scattered radiation may leak from the head and reach the patient through the jaws and multi-leaf collimator, contributing

up to 12% of the dose the patient receives. IMSure QA is dose calculation software that uses a 3-source beam model to calculate the contribution to dose accurately from all three of these sources as well as transmission through jaws & MLC.



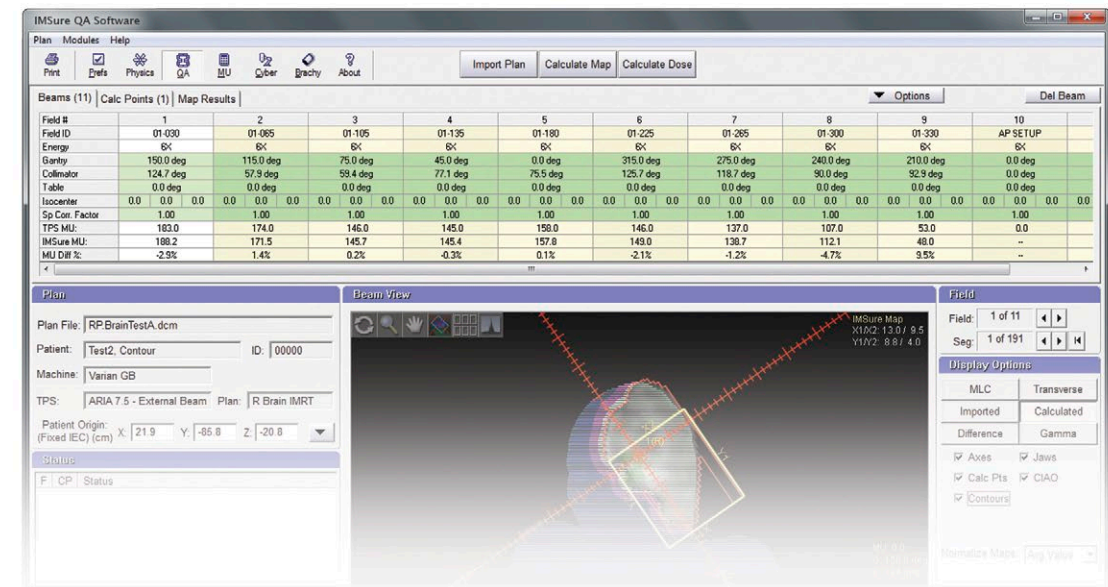
VERSATILE SECOND CHECK SOFTWARE

SUPPORTS OPEN BEAMS, BEAMS WITH BLOCKS, STEREOTACTIC CONES & WEDGED BEAMS

ADVANCED FEATURES

IMSure QA Software includes many advanced features allowing you to streamline your plan QA.

- **In-vivo measurement support** – IMSure QA automatically calculates an expected reading for a diode placed at the surface in relation to the isocenter or any valid calculation point. A printable comprehensive setup report allows for easy setup and reporting of measured results
- **Multiple calculation points** – Import unlimited points of interest from your treatment planning system or manually enter these for more complete plan evaluation
- **Block editor** – An interactive block editor allows for the creation of standard or island blocks or editing of block shapes imported from your treatment planning system
- **Heterogeneity correction** – Import CT images and structure set for automatic calculation of effective depths in IMSure QA.
- **.decimal compensator support** – Utilizing a full convolution algorithm, IMSure models the scatter, beam hardening effects and field-size dependencies to calculate a true compensator factor for even the most complex .decimal filters.



THOROUGH STEREOTACTIC QA

Calculate and confirm cone-based or MLC-based stereotactic treatments, including conformal and dynamic arcs. Create separate stereotactic and cone models at each energy in the physics module to accurately represent small fields found in stereotactic plans.

CYBERKNIFE PLAN VERIFICATION MODULE

The Cyberknife module quickly and easily validates monitor units and dose for Raytrace and Monte Carlo plans created on the MultiPlan® treatment planning system. Color coding immediately allows you to recognize individual projections that are outside tolerance.

EASY MONITOR UNIT VERIFICATION

SECONDARY CHECK OF YOUR TREATMENT PLAN IN ONLY TWO STEPS

COMPREHENSIVE VERIFICATION OF YOUR ENTIRE PLAN

The Stanford University 3-Source Model considers the dose contribution from the primary photon source located at the target, a scatter photon source located at the primary collimator, and a scatter photon source positioned at the base of the flattening filter, resulting in accurate dose calculations.

Traditionally, IMRT QA may include a phantom placed on the couch with an ion chamber to check point dose. In addition, for 2D review a chamber array in a phantom or film placed between the phantom slabs can be used to measure fluence or dose for more detailed plan evaluation. IMSure QA completes both parts of the classic IMRT protocol, point dose verification and a 2D fluence check.

With multiple calculation point support, IMSure allows you to place an unlimited number of 'virtual' chambers anywhere in the field to sample point doses. IMSure will also import the fluence from your treatment planning system and directly compare that to an independently calculated fluence allowing for a more comprehensive verification of the plan.

STRUCTURES

Importing the structure set along with your plan allows for better visualization of your plan data and calculation point positions. Utilize contours to account for missing tissue (flash). Also import CT images for automatic effective depth calculation to account for patient heterogeneity.

INTUITIVE COMPUTING

Automatic SSD and effective depth calculations are performed when CT slices and structures are imported along with a plan. This allows the system to account for heterogeneities within the patient geometry. For VMAT plans, an optional Control Point Report provides segment by segment values for the SSD and effective depth of each calculation point.



"I've been an IMSure user since 2008 and find the software very convenient and easy to use. The flexibility of the DICOM import assures quick, easy and consistent QA times."

MATT WEST
Good Samaritan Hospital, San Jose

IMSURE SOFTWARE/COMPUTER REQUIREMENTS

OPERATING SYSTEM — WINDOWS® 10 PROFESSIONAL, 64 BIT RECOMMENDED

PROCESSOR — Dual Core, 1 GHz; Quad Core, 2 GHz Recommended

MEMORY — 32-BIT OS: 2 GB, 4 GB RECOMMENDED; 64-BIT OS: 4 GB, 8 GB RECOMMENDED

RUNTIME ENVIRONMENT — Visual C++ 2010 Runtime

HARD DRIVE — 32 GB OR GREATER, 3 GB FREE SPACE FOR INITIAL SOFTWARE INSTALLATION.

SUFFICIENT FREE SPACE TO STORE THE INPUT RT PLAN, STRUCTURES, AND IMAGE FILES AS REQUIRED.

25% FREE SPACE RECOMMENDED.

SCREEN RESOLUTION — 1024 x 768 or greater

OPTICAL DRIVE — COMPACT DISC (CD) OR DIGITAL VERSATILE DISC (DVD)

CONNECTIVITY — IPv4 LAN, 100 Mbit/s or greater

Windows® is a registered trademark of Microsoft Corporation.

DTA: 0.50 cm

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PATIENT DOSIMETRY

STANDARDIMAGING®



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