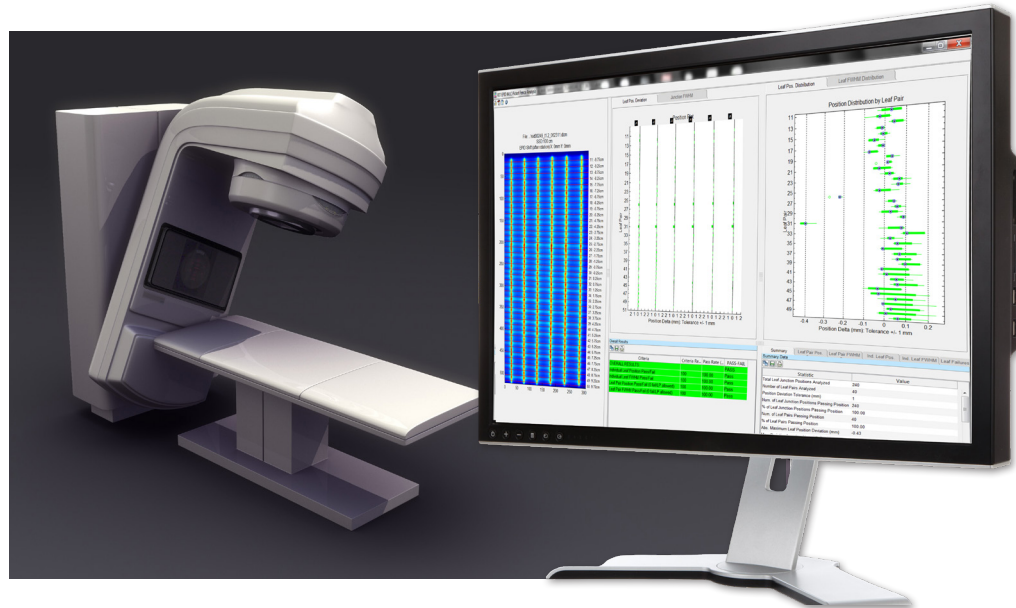


Perform comprehensive quality assurance of linear accelerators with confidence and ease, using an EPID and RITG142 software.

RITG142 is your all-in-one solution for Machine QA, MLC QA, Imaging QA, and the data tracking and trending you need to be in compliance with TG-142 and Medical Physics Practical Guideline (MPPG) 8.b.



### DAILY, MONTHLY, & ANNUAL LINAC MACHINE QA

- Enhanced 3D Winston-Lutz (Isocenter Optimization) with Virtual Star Shot\***

Automatically process a set of EPID Winston-Lutz images for a fast and accurate measurement of isocenter position. RIT's version of this test allows you to use 3 to 16 images, and provides error estimates for ball setup and wobble around isocenter. Increased angle flexibility allows you to mimic more clinically relevant angles to determine isocenter at specific treatment configurations.

- Stereotactic Alignment (2D Winston-Lutz) Test
- Stereotactic Cone Profiles
- Field Alignment Test

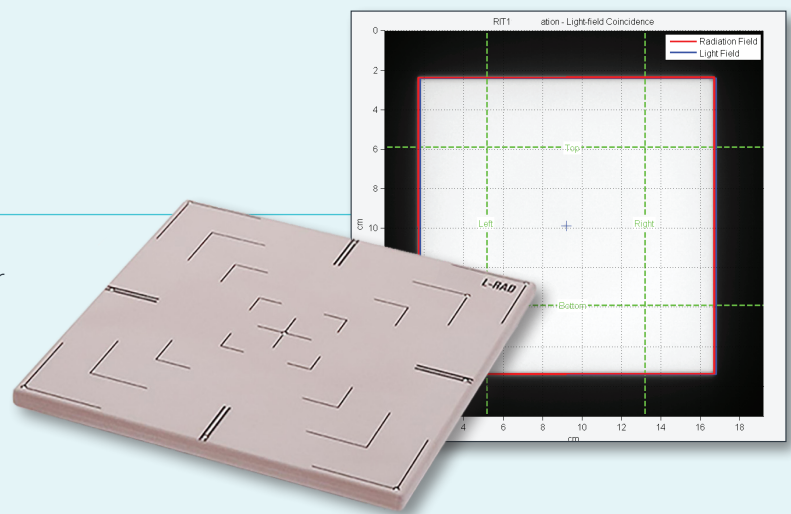
- Radiation/Light Field Coincidence**

EPID images may be analyzed without a calibration file and with custom field sizes. Center location can be found by taking a BB, pinprick, or using an L-Rad Phantom.

- Asymmetric Field/Matchline
- Electron Energy (TG-25)
- Quick Flatness and Symmetry
- Water Tank Beam Measurement Analysis
- Depth Dose Profiles, Cross Profiles, and Orthogonal Profiles

- Fully-Automated Star Shot Analysis**

RIT's enhanced film Star Shot beam detection routine has a fully-automated interface with robust and highly accurate artificial intelligence algorithms. Polarity, ROI, number of spokes, and spoke center are automatically extracted from the image and applied in the analysis.



FOR USERS REQUIRING BOTH MACHINE QA & PATIENT QA, TRY **RIT Complete**

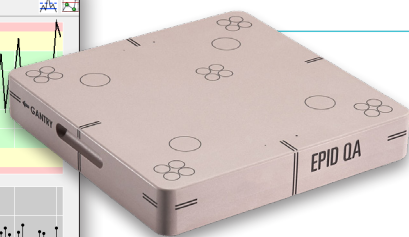
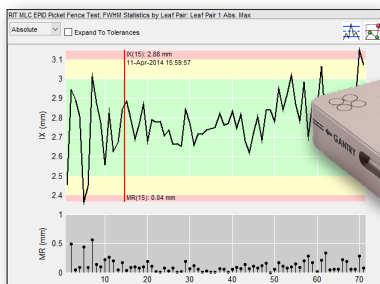
\*US Patent 9192784, JP Patent 6009705, CA Patent 2918045, and other international patents pending.

RITG142 software not only allows you to perform Machine QA, MLC QA, and Imaging QA measurements, but it also simplifies the process of creating a routine QA program at your facility, streamlines the reporting process for accreditation, and provides you with a better understanding of measurement performance across multiple machines and facilities.

### FAST AND EASY, QUANTITATIVE MLC QA

- Hancock Tests for Elekta Machines**  
 The Hancock Tests (2-Image Test, 4-Image Test, and With Backup Jaw Test) use the Elekta iView™ imager to automatically measure leaf position vs. isocenter position, and jaw leaf setback measurement, if applicable.
- Elekta Leaf Speed Test**  
 This test aligns two images to analyze the consistency of the leaf speed for both Elekta iView™ and Agility™.
- EPID Picket Fence Test**  
 For both Varian and Elekta, this routine automates the classic picket fence test.
- Additional MLC Tests**  
 These include: Bayouth MLC Test, TG-50 Picket Fence Test, MSK Leaf Test, Varian DMLC Test Patterns, and MLC Transmission analysis.
- Automated Varian RapidArc® Tests**  
 Images may be taken at any distance from EPID, Film, or CR Images. This includes: Tests 0.1, 0.2, 1.1, 1.2, 2 and 3. These tests support the Millennium 120, HD120 MLC, and Halcyon MLC models.
- Varian Leaf Speed Test**  
 Without the use of log files, this test measures the consistency and accuracy of Varian MLC leaf speeds as they move across an imager.
- Varian Halcyon® MLC Analysis**  
 Perform a picket fence or comprehensive RapidArc analysis of the Varian Halcyon MLC.

### ONE-CLICK, INSTANT PHANTOM ANALYSES



#### Planar MV (EPID) Imager

- EPID phantom, Las Vegas, PTW EPID QC, and Standard Imaging QC-3 Phantoms

#### Planar kV Imaging

- IBA Primus® L, PTW NORMI® 4 (20x20 and 30x30 cm sizes), Leeds TOR-18 FG, and Standard Imaging QC-kV1 Phantoms

#### CBCT/MVCT

- Catphan® 504 and 604 - Varian, Catphan 503 Elekta XVI, and Siemens MVCT Phantoms

#### Daily IGRT QA

- Standard Imaging ISOcube Phantom: kV-MV Isocenter Coincidence, CBCT Isocenter Coincidence, kV Collimation, MV Collimation / Light Field, and 6 Degree-of-Freedom Couch Tests

#### EPID PHANTOM TESTS (24 x 24 cm)

- Constancy in 5 areas
- Resolution (MTF)
- Geometric Distortion
- Uniformity
- Contrast
- Noise

Agility™ and iView™ are trademarks of Elekta AB.  
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 Catphan® is a registered trademark of The Phantom Laboratory  
 NORMI® is a registered trademark of PTW  
 Primus® is a registered trademark of IBA