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.

**DAILY, MONTHLY, ANNUAL LINAC MACHINE QA**

- **Enhanced 3D Winston-Lutz (Isocenter Optimization) with Virtual Star Shot**
  Automatically process a set of EPID Winston-Lutz image 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.

- 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 detection artificial intelligence algorithms. Polarity, ROI, number of spokes, and spoke center are automatically extracted from the image, then applied in the analysis.

For users requiring both Machine QA & Patient QA, try RIT Complete.

RITG142 software does more than just perform Machine QA, MLC QA, and Imaging QA measurements. It 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 & 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™.

- **RIT EPID Picket Fence Test**
  For both Varian and Elekta, this routine automates classic picket fence test.

- **Automated Varian RapidArc® Tests**
  Images may be taken at any distance from EPID, Film, or CR Images. This includes: Tests 0.1, 0.2, 0.2 HD, 1.1, 1.1 HD, 1.2, 1.2 HD, 2 and 3.

- **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.

- **Additional MLC Tests**
  These include: Bayouth MLC Test, TG-50 Picket Fence Test, MSK Leaf Test, Varian DMLC Test Patterns, and MLC Transmission analysis.

**ONE-CLICK, INSTANT IMAGING QA**

**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, 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**
- ISOCube™ Phantom: kV-MV Isocenter Coincidence, CBCT Isocenter Coincidence, kV Collimation, MV Collimation / Light Field, and 6 Degree-of-Freedom Couch Tests

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