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 RIT's 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.

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For users requiring both Machine QA & Patient QA, try **RITComplete**

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, and 1.2 HD.

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

**Planar kV Imaging**
- DISC Plus, 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

**RIT EPID Phantom Tests** (24 x 24 cm)
- Constancy in 5 areas
- Resolution (MTF)
- Geometric Distortion
- Uniformity
- Contrast
- Noise

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RapidArc® is a registered trademark of Varian Medical Systems, Inc.
Catphan® is a registered trademark of The Phantom Laboratory
ISOcube™ is a trademark of IMT, Inc.
NORMI® is a registered trademark of PTW
Primus® is a registered trademark of IBA