The RIT Film software package offers a full suite of film dosimetry routines, including Patient QA and basic Machine QA. Easily streamline your Patient QA with RunQueueA, RIT’s automated batch analysis feature, and easily export any analysis routine as a PDF report with a single click.

PATIENT QA

RIT Film’s Patient QA (IMRT) routines are designed for the comparison of a patient’s phantom plan from the user’s treatment planning system and the QA image captured by film exposed to that phantom plan. The software conveniently allows for comparing a plan and film, a plan to plan, and/or a film to film.

Patient QA Routines

- **Patient QA Measurements**
  RIT Film includes the following Patient QA (IMRT) measurements: Gamma Analysis, Distance-to-Agreement (DTA), Profiles, Van Dyk's Analysis, Subtraction, Composite Analysis, Isodose Curves, Addition, Centroid Measurement, and Proportion Passing Plot.

- **Plan-Based Calibration**
  Make quick, relative comparisons between any dose map and your film images.

- **Dose Calibrations**

- **Scanner Spatial Calibration**
  The spatial calibration is not a dose conversion, but rather a means to determine the exact pixel size for the Vidar film scanner or flatbed scanner. This gives you the most accurate distance measurements.

- **Automated Image Fill for Anthropomorphic Phantom QA**
  Use this function to automatically correct and fill any holes or cutouts in the image file. Perform patient QA with an anthropomorphic phantom for both calibrated and uncalibrated images.

- **Patient QA Image Registration**
  Simultaneously perform fully-automated registration control point positioning in both traditional and RunQueueA IMRT. Template-based registration may also be performed.

Automated Batch Analysis

Perform fast, consistent batch analysis with an automated QA checklist. The automated script maximizes the efficiency of your Patient QA analysis. RunQueueA increases consistency of entered values and of analyses between multiple users at the same or different sites. It also reduces the amount of training required to run the analyses.
MACHINE QA

- 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.

- Stereotactic Alignment Test
  (2D Winston-Lutz)
- Stereotactic Cone Profiles
- Field Alignment Test
- Electron Energy (TG-25)
- Radiation/Light Field Coincidence
- Quick Flatness and Symmetry
- Isodose Measurements

Profiles

- Cross Profiles
  This includes Flatness, Symmetry, Penumbra, FWHM, Integrated Dose, and more.
- Depth Dose Profiles
  This includes Electron Energy, PDD, D_{\text{Max}^\prime}, D_{10^\prime}, D_{20^\prime} and other statistics.

FILM DOSIMETRY FOR QA

- Vidar Scanner Interface
  (Vidar Scanner Control Center)
- Radiochromic Film Non-Uniformity Correction
- Vidar Advantage Pro 180° Correction
- Automated 21-Point Film Processor Correction
  Patents: EP 1252550, CA 2396952, JP 3817176, and US 6528803
- 2D Scanner Spatial Calibration for Vidar and Flatbed Scanners
- Flatbed Non-Uniformity Correction

This advanced feature corrects for flatness and uniformity variations in scanners, corrects for non-uniformities in EBT film to improve the film’s dosimetric accuracy, and provides you with the option to automatically-generate a calibration file.

- Sensitometry
  Patents: EP 1252550, CA 2396952, JP 3817176, and US 6528803
- Generic Image File Import
  Import generic JPEG, TIFF, and bitmap image files from sources other than a Vidar Scanner, giving you increased flexibility in your workflow.

Request a personal demo of RIT Film:
www2.radimage.com/demo