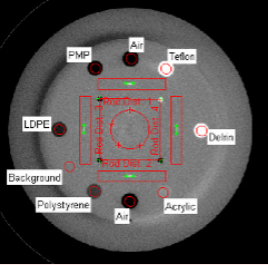
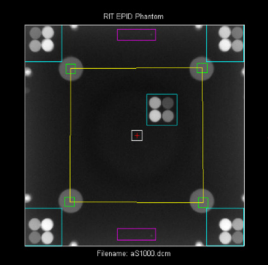
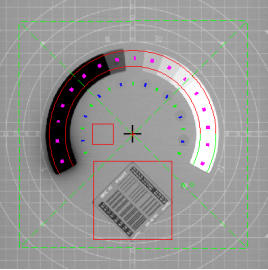


Radia is an à la carte-based software that allows you to perform comprehensive imaging QA/QC at your facility. Easily customize your software package by adding the specific therapy modules you need to perform fully automated analyses on all phantoms used at your facility. The software provides fast, robust, and accurate analysis of all imaging tests recommended in TG-142. Easily automate your LINAC image QA and get quantitative, repeatable analysis for all tests. Full reports of all imaging tests are easily generated, and results can be automatically tracked and trended in the built-in statistical database.

THERAPEUTIC MODULES & PHANTOMS




MODULE NAME	PHANTOMS	ANALYSIS MEASUREMENTS
ACR CT Module	ACR CT Phantom	Landmark BB position, Landmark slice thickness, CT material values, CT material linearity, uniformity and noise power spectrum, resolution, MTF
ACR MRI Module	ACR Large MRI Phantom	Localizer line length, geometric accuracy, resolution, slice thickness, slice difference, geometric distortion, uniformity, ghosting, low contrast: spokes detected, contrast to noise ratios
	ACR Medium MRI Phantom	Localizer line length, geometric accuracy, resolution, slice thickness, slice difference, geometric distortion, uniformity, ghosting, low contrast: spokes detected, contrast to noise ratios
Catphan/OBI Module 	CATPHAN® 500/600 Series Phantom	CT material values, CT number linearity, slice width (both horizontal and both vertical slices), ramp alignment, ramp yaw and tilt, rod distances (geometric distortion), low contrast spheres, contrast to noise ratio, CT uniformity and noise power spectrum, integral uniformity, resolution, MTF
	Elekta 503 CATPHAN® (XVI) Phantom	Spatial resolution, MTF (based on standard deviation), MTF curve, uniformity, sagittal geometry, low contrast, horizontal and vertical scaling, material values for LDPE and Poly
	Varian 504 & 604 CATPHAN® Phantom	CT material values, CT number linearity, slice width (both horizontal and both vertical slices), ramp alignment, ramp yaw and tilt, rod distances (geometric distortion), low contrast spheres, contrast to noise ratio, CT uniformity and noise power spectrum, integral uniformity, resolution, MTF
	Siemens MV CT (OBI) Phantom	Geometric analysis (BBs), high and low contrast objects, resolution line pairs detected, MTF (based on standard deviation), uniformity
Electron Density/ Tissue Characterization Module	Accuray TomoTherapy® Cheese MVCT Phantom	Materials measurements, CNR, resolution, noise, uniformity and noise power spectrum
	CIRS CT Phantoms: 062, 062A, 062M (Cone Beam)	CT material value measurements
	Gammex 467 CT Phantom	CT material value measurements, rod distance measurements
	PTW Electron Density Phantom	CT material values, electron density relative to water, physical density (g/cm ³)
EPID MV Imaging Module 	RIT EPID Phantom (EPID QA Phantom - manufactured & sold by Standard Imaging)	Geometric accuracy, uniformity area, contrast (Al plugs), copper plug isotropy, resolution (MTF). Offers support for all EPID devices: Varian aS500/aS1000, Elekta iView™ and Siemens. Couch placement analysis is supported.
	PTW EPID QC Phantom	Signal linearity, SNR, response linearity, isotropy, geometric accuracy, MTF, low contrast measurements. Offers support for all EPID devices: Varian aS500/aS1000, Elekta iView™ and Siemens. Couch placement analysis is supported.
	Las Vegas EPID Phantoms	Contrast to noise ratios, spatial resolution, Varian image quality test, and background statistics, TG-58 contrast and spatial resolution test. Includes added TG-58 and Varian QA acceptance criteria for analysis. Couch placement analysis is not supported.
	Standard Imaging QC-3 Phantom	Contrast value, noise value, uniformity (NEMA), line pairs detected, modulation. Couch placement analysis is supported.

THERAPEUTIC MODULES & PHANTOMS (CONT.)

MODULE NAME	PHANTOMS	ANALYSIS MEASUREMENTS
ISOCube Module	Standard Imaging ISOCube Phantom	kV-MV coincidence, CBCT isocenter alignment, kV Collimation, MV – Radiation/Light Field coincidence, 6 degree-of-freedom couch measurements
kV Imaging Module 	IBA Primus®-L Phantom	Noise and CNR for each step in the step wedge, CNR by contrast object, ytterbium indicator, central area uniformity, resolution line pairs detected, MTF, geometry. Couch placement analysis is supported.
	Leeds TOR 18FG Phantom	Contrast to noise ratio for high contrast and low contrast objects, resolution line pairs detected, modulation. Couch placement analysis is supported.
	PTW NORMI® 4 Phantom (20 x 20 cm and 30 x 30 cm)	Noise and CNR for each step in the step wedge, CNR by contrast object, ytterbium indicator, central area uniformity, resolution line pairs detected, MTF, geometry. Couch placement analysis is supported.
	Standard Imaging QcKv-1 Phantom	Contrast value, noise value, uniformity (NEMA), spatial resolution, modulation. Couch placement analysis is supported.
Penta-Guide Module	Modus (IBA) Penta-Guide Phantom	Penta-Guide DRR-MV-kV coincidence, CBCT axial and sagittal positions

BASE MODULE

In order to utilize the Radia Therapy modules, you are first required to purchase the Radia base module (if you do not already have RIT *Complete*, RITG142, or RITG148+), which offers basic imaging QA/QC functionality and includes our automated features.

FEATURE	DETAILS
Locate & Import Images	DICOM directory browser, open directory browser, DICOM file filter for organizing your images
Output Formats	Print, PDF, Excel (with custom templates)
DICOM Image Viewer & DICOM Tag Viewer	View DICOM images and DICOM tags
Manual Measurements	Distance, angle, profile, histograms, round and square ROI. ASCII output of profiles.
Monitor Image Quality	SMPTE pattern and TG18 images with custom templates (print, PDF, Excel)
 Run Queue C	Batch processing of images, including preference and tolerance profile customization.
 Cerberus	Monitors folders and processes incoming files without you lifting a finger or even being present. Up to four DICOM tags may be used to sort.
 RIT trend™	All measurements can be tracked and plotted over time in the statistical trend database. Any number of databases can be used. All Statistical Process Control parameters measured and plotted.

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