TG-142 MADE EASY

Expedite superior QA, using an intuitive user-interface, specialized phantoms and centralized database to simplify over 30 TG-142 procedures

PIPSPRO SOFTWARE

COMPREHENSIVE IMAGING QA

Easily attain results for TG-142 recommended imaging QA, including:

- MV Imaging
- kV Imaging
- Cone-beam CT
- IGRT

QUANTIFIABLE MACHINE QA

PIPSpro quickly analyzes specialized phantoms to provide precise, quantitative results for TG-142 machine QA procedures, including:

- MLC positioning (Static, IMRT), leakage and more
- Stereotactic (Winston-Lutz)
- Radiation Field / Light Field
- Star Shot analysis for rotational isocenter verification

VALIDATED PERFORMANCE

Over 55 publications validate PIPSpro and its specialized phantoms' performance, highlighting the software's compatibility with a variety of different imagers.

REFINED USER-INTERFACE

New, streamlined user-interface simplifies QA testing. Easy-to-use tabs automate analysis, data storage, historical trending and reporting.

CENTRALIZED DATABASE FOR TRENDING AND REPORTING

A central data hub allows for quick access to QA results from multiple computers, departments or sites.

ADVANCING RADIATION QA™

www.standardimaging.com

TG-142 Compliant QA Modules

QC Module

Analysis of QC-3 and QCkV-1 Phantom images provides data for monthly MV/kV imaging tests, including:

- Spatial resolution*
- Contrast-to-noise*
- Overall noise*

*Meets TG-142 specification for comparison to baseline

Analysis of FC-2 Phantom images provides data for monthly mechanical and imaging QA procedures, including:

- Jaw position indicators (symmetric) – Meets TG-142 specification of measuring tolerances of 2mm
- Light/radiation field coincidence – Meets TG-142 specification of measuring tolerances of 2mm or 1% on a side
- Scaling, MV Imaging – Meets TG-142 specifications of measuring tolerances of ≤2mm (non-SRS/SBRT) and ≤1mm (SRS/SBRT)
- Scaling, kV imaging – Meets TG-142 specifications of measuring tolerances of ≤2mm (non-SRS/SBRT) and ≤1mm (SRS/SBRT)

Star Shot Module

Analysis of star shot images provides data for annual mechanical procedures, including:

- Collimator rotation isocenter*
- Gantry rotation isocenter*
- Couch rotation isocenter*

*Meets TG-142 specification of measuring tolerances of ±1mm from baseline

Stereotactic Module [COMPREHENSIVE]

Accurate, reproducible results:

- Automatically analyze EPID images of Winston-Lutz ball marker
- Assure patient position for the most precise stereotactic treatments using the calculated 3D offset

MLC QA Module [COMPREHENSIVE]

Analysis of MLC Phantom images provides data for TG-142 procedures*, including:

- Qualitative test [i.e., matched segments, aka 'picket fence']
- Setting vs. radiation field for two patterns [non-IMRT]
- Leaf position accuracy [IMRT]
- MLC Transmission [average of leaf and interleaf transmission, all energies]
- Leaf position repeatability
- Segmental IMRT [step and shoot] test

*Exceeds TG-142 specifications with quantitative analysis

IGRT Module [COMPREHENSIVE]

Track and trend results to prevent potential clinical issues:

- Imaging and treatment coordinate coincidence [kV, MV, CBCT] (single gantry angles and four cardinal angles)
- Positioning/repositioning [kV, MV, CBCT]

CBCT Module [COMPREHENSIVE]

Automatic analysis of Catphan® phantoms provides data for monthly Cone-Beam CT QA Tests, including:

- Geometric distortion – Meets TG-142 specification of measuring tolerances of ≤2mm (non-SRS/SBRT) and ≤1mm (SRS/SBRT)
- Spatial Resolution*
- Contrast*
- HU Constancy*
- Noise*

*Meets TG-142 specification for comparison to baseline

> The **TG-58 Report** encourages users to demand the use of a tool such as PIPSpro QC Software at acceptance to help ensure that the EPID is indeed operating at or above specifications.*
>
> * Michael G. Herman, et al, "Clinical Use of Electronic Portal Imaging: Report of AAPM Radiation Therapy Committee Task Group 58," **Med. Phys.** 28 (5), May 2001

The **PIPSpro QC Software (REF 91310)** consists of the PIPSpro QC Software, including modules for quality control, registration, image enhancement, and image analysis, plus the QC-3 and FC-2 Phantoms. The **PIPSpro Comprehensive Software (REF 91320)** includes the MLC, QC-3, FC-2, and QCkV-1 Phantoms and additional modules for performing stereotactic radiosurgery QA, MLC QA, CBCT QA, and dewarping images.

Over 55 publications validate the performance of PIPSpro.

PIPSpro Software SPECIFICATIONS

OPERATING SYSTEM		**SCREEN RESOLUTION**	800 x 600 (1024 x 768 recommended)
	MICROSOFT® WINDOWS® XP WINDOWS VISTA® WINDOWS 7	**CD–ROM DRIVE**	2X speed or greater
PROCESSOR	Intel® or AMD®, 350 MHz or greater	**SCREEN COLOR DEPTH**	256-bit or greater
MEMORY	64 MB (256 MB recommended)	**PRODUCT STANDARDS**	Designed to meet IEC 60601-1-4 CE
HARD DRIVE	50 MB or greater	**RECOMMENDED SOFTWARE**	Microsoft Excel

Catphan® is a registered trademark of The Phantom Laboratory.
Windows® is a registered trademark of Microsoft Corporation.
Specifications subject to change without notice.

ORDERING INFORMATION **PIPSPRO** SOFTWARE **REF 91310**

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STANDARD IMAGING®