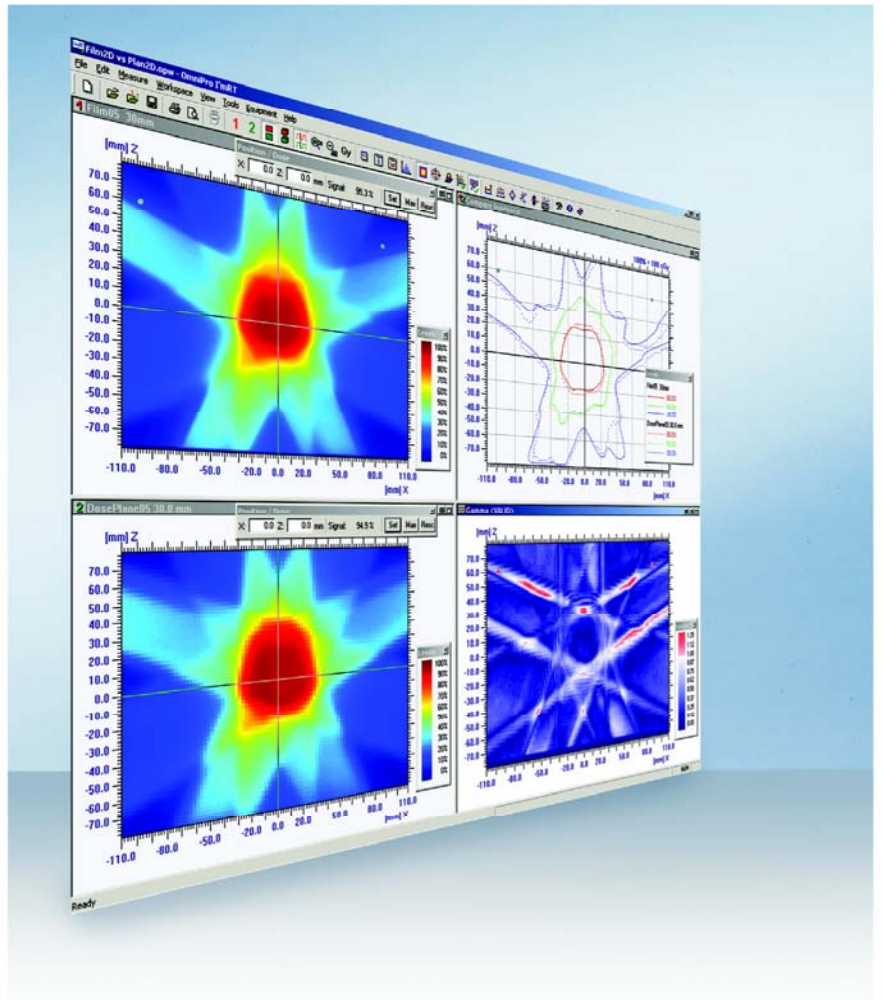


A powerful software solution

OmniPro-ImRT



The software solution for IMRT

FAST_{est} | **most ACCURATE** | **most RELIABLE**

- ✓ Since one fits all solutions no further software modules are requested
 - ✓ Intuitive user interface and efficient analysis using optimized algorithms
 - ✓ Flexible workflow
-
- ✓ Modern data acquisition and analysis tools that enable real-time verification of measured versus planned data
 - ✓ To use with film as well as electronic 2D devices
 - ✓ Advanced calibration routines e.g. for film and I'mRT MatriXX
-
- ✓ Part of the established OmniPro software family
 - ✓ Reliable technology and architecture that is clinically validated
 - ✓ Scanditronix Wellhöfer has more than 12 years of experience with film processing and electronic 2D devices as well as calibration and analysis of dosimetric 2D data

OmniPro-I'mRT is a intuitive, user friendly application software for complete dosimetric verification and QA of IMRT treatment cycles.

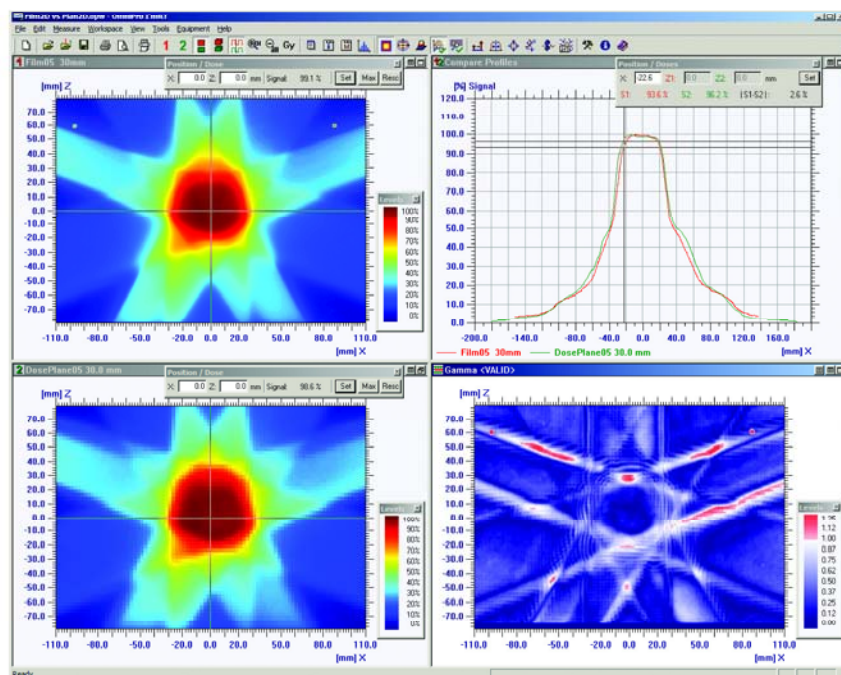
It incorporates the latest software technology with extensive and flexible import as well as export functionalities to compare TPS planned data with dose distributions from films exposed in a phantom such as the I'mRT Phantom, or with 2D data acquired with film or electronic 2D devices like I'mRT MatriXX, iViewGT, I'mRT QA or BIS 710.

An easy parameter set-up enables fast, real-time verification of measured versus planned IMRT treatment cycles. It includes various types of 1D, 2D and 3D visualization techniques like step and shoot or sliding windows, data analysis functions and image processing tools. Visual and mathematical comparisons using modern analysis tools such as the Gamma method are also included.

measured data



TPS data



visual comparison
1D profiles
2D isodoses

mathematical comparison
sum
difference
absolute difference
correlation
multiplication
Gamma method
division
DTA

OmniPro-I'mRT Features

I'mRT Phantom data:

- Film data from Vidar, Kodak (Lumisys) and Twain compatible film digitizers
- Scanner and film calibration routines
- Absolute dose verification

I'mRT MatriXX data:

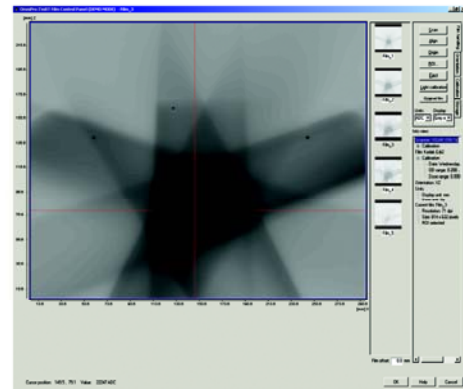
- Individual and integrated IMRT segments
- IMRT field verification (step and shoot)
- Dynamic field verification
- Linac QA
- Linac start-up
- Daily QA
- Verification of dose and dose rate

I'mRT QA and BIS 710 data:

- Individual and integrated IMRT segments
- MLC QA
- Light vs radiation field
- Linac QA
- Linac start-up
- Real-time 2D intensity of the delivery system
- Real-time, simultaneous display and parametrization

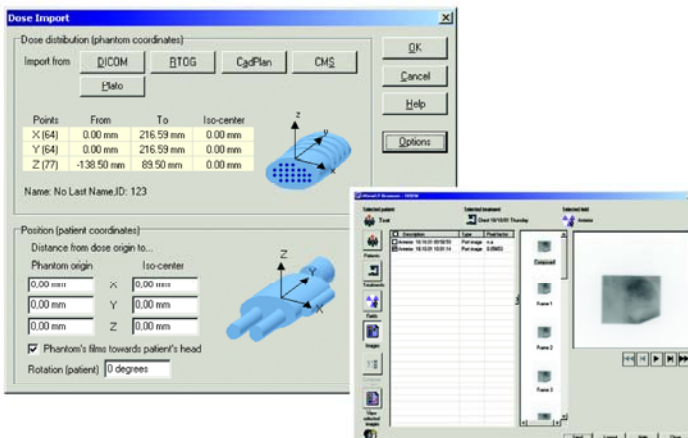
Devices:

- I'mRT MatriXX
- I'mRT Phantom
- Scanners: Vidar™ VXR-16, VXR-16 DosimetryPRO, DosimetryPRO Advantage/Kodak (Lumisys)/ Twain compatible scanners
- I'mRT QA
- BIS 710



Data import:

- Import of planned 2D and 3D dose from all TPS supporting DICOM RT (from network and files) and RTOG (ASCII and binary) formats as well as proprietary formats (e.g. BrainLAB, CMS)
- Import of fluence maps from various TPS (e.g. CadPlan, Pinnacle, CMS)
- Export and import of generic ASCII files
- Extended iViewGT™ interface

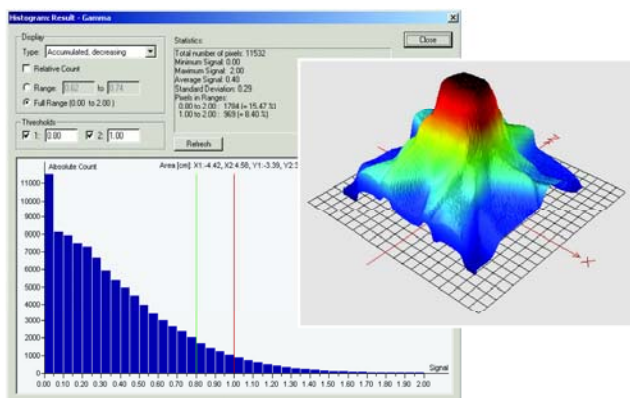


Verification and analysis:

- Verification of measured vs planned, planned vs measured, measured vs measured and planned vs planned data
- 1D profile analysis (e.g. symmetry/flatness)
- 1D profile comparison
- 2D isodose comparison (incl. dynamic isodoses)
- Basic maths: sum, (absolute) difference, multiplication, division
- Advanced maths: correlation, extended Gamma method (threshold, gamma angle, optimized algorithm) and DTA (distance to agreement)
- Flexible order for data verification (data set 1 vs 2 or data set 2 vs 1)

Data display:

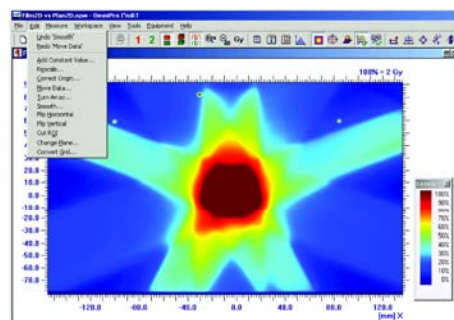
- 1D, 2D and 3D data visualization: profiles, isodose contours, 2D/3D dose distributions and histograms for data sets and results
- Different color palette representations
- Advanced isodose set-up with template files
- Extensive cursor analysis functions such as zoom, distance, position, angle etc.



- Region of interest analysis
- Display of absolute dose values
- Extended parameter pages

Data handling:

- Rescaling, Automatic Origin Correction, Shifting, Turning, Smoothing, Flipping, Cutting, Adding Constant Values, Changing Plane, Changing Resolution
- Undo/Redo functionality



Minimum computer requirements

Operating system:	Microsoft Windows™
Processor:	Pentium at 1300 MHz
Memory:	512 MB RAM (minimum), 1 GB RAM (recommended for real-time intensity mode)
Hard disk:	with at least 160 MB available, recommended 40 GB for data archiving
Monitor and graphics:	supporting a resolution of 1024 x 768 pixel at True Colour (32-bit)
Ports:	1 free PCI slot for the frame grabber board (when using l'mRT QA), Available Ethernet connection (RJ-45 for l'mRT MatrixX) interface to film scanner
Film scanners supported:	Vidar™ VXR-16, VXR-16 DosimetryPRO, DosimetryPRO Advantage/Kodak (Lumisys)/Twain compatible scanners
Import of planned data:	all TPS that support DICOM RT or RTOG formats BrainLAB, CMS, CadPlan

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