



Komplexná QA platforma od IBA

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All-in-One.



All Connected.



All Secure.



1 platform for ALL QA applications

Scalable and modular concept

Customize myQA to your budget



Connect your applications (1 common platform)

Connect your Team (1 common database)

Connect your Sites (Network access using myQA Cockpit)



Similar to a R&V but for QA applications

myQATM Your Global QA Platform

Main points

Network



Platform

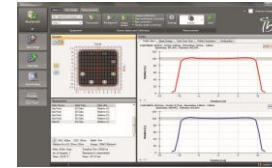


Module

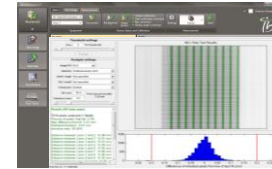


Minimum
Package

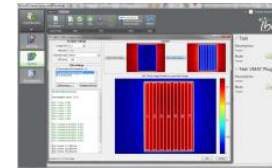
Plug-in (5)



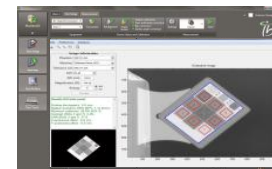
Dosimetry



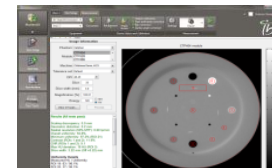
MLC QA



VMAT DMLC
QA

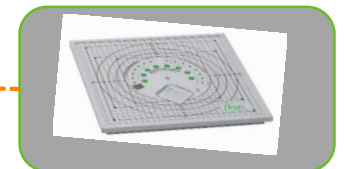


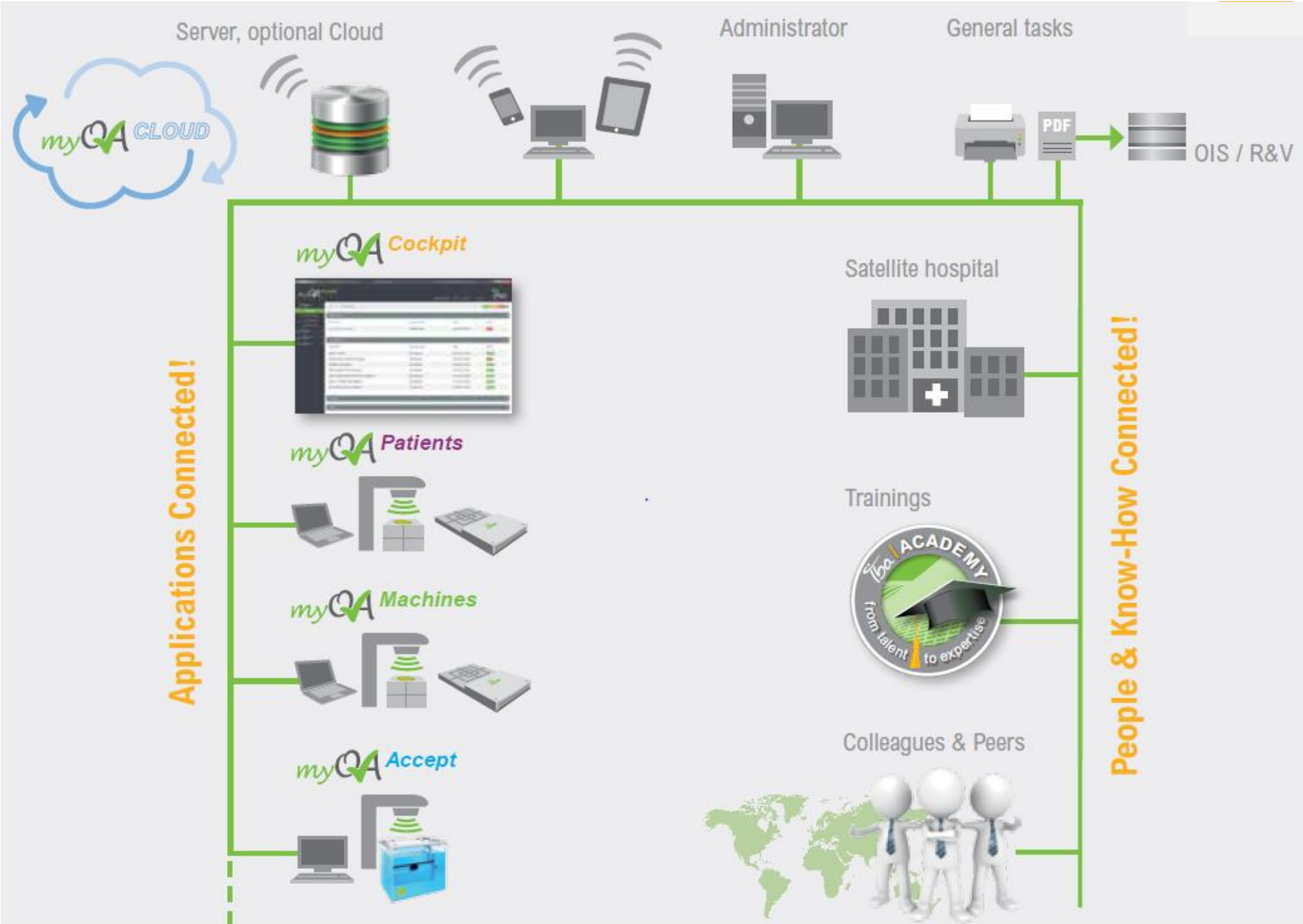
EPID QA



CBCT QA

Hardware





User right management

Tasks manager

Central equipment management (Linacs, devices)

Central database
(storage, archiving, backups)

Traceability with log files

Scheduler

Connected to IBA Service (Online service
& training, Service contract)



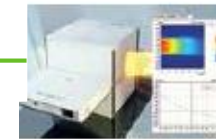
myQATM

One Platform. Multiple Applications.



A screenshot of the myQA Cockpit web interface. It shows a sidebar with a tree view containing "Linac 1", "Linac 2", "Linac 3", and "Linac 4". The main content area displays a table of test results for "Linac 1" (TG-142) on "Task Daily". The table has columns for "Test Name", "Executed User", "Date", and "Status".

Test Name	Executed User	Date	Status
Open Output Constancy	Christian Owers	26.05.2014 09:22	Pass
Mechanical			
Laser Localization	Can Kuyucan	26.05.2014 09:22	Pass
Optical Distance Indicator (ODI) @ 100	Can Kuyucan	26.05.2014 09:22	Pass
Collimator Size Indicator	Can Kuyucan	26.05.2014 09:22	Pass
Light / Radiation Field Coincidence	Can Kuyucan	26.05.2014 09:22	Pass
Light / Radiation Field Coincidence (asymmetric)	Can Kuyucan	26.05.2014 09:22	Pass
Geometry / Collimator Angle Indicators	Can Kuyucan	26.05.2014 09:22	Pass
Leaf Position Indicators (Symmetric)	Can Kuyucan	26.05.2014 09:22	Pass
Safety			
Pass			



MatriXX Family

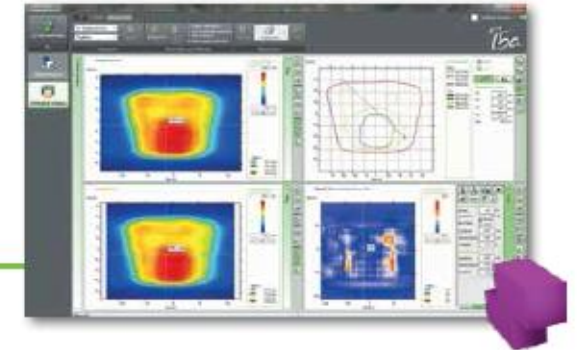


StarTrack

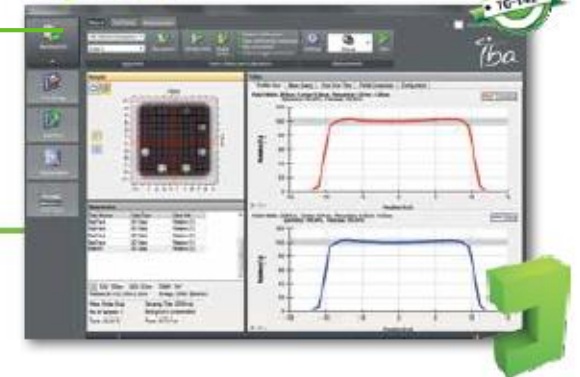
Blue Phantom Family



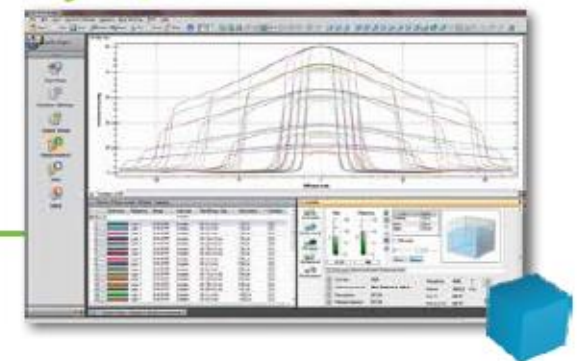
myQA Patients



myQA Machines



myQA Accept





One Platform. Multiple Applications.



Patients

Test Results

Trend Analysis



✗ Linac 1

✗ Task Daily

✓ Task Weekly

✓ Task Monthly

✓ Task Yearly

✓ Linac 2

✓ Linac 3

✓ Linac 4

myQA Cockpit

Linac 1

Task Daily

Task Weekly

Task Monthly

Task Yearly

Linac 2

Linac 3

Linac 4

Linac | TG-142 | Task Daily

90% ✓ 05% ⚠ 05% ✗

Dosimetry

Test Name	Executed User	Date	Status
Dose Output Constancy	Christian Goehl	26.05.2014 09:22	failed

Mechanical

Test Name	Executed User	Date	Status
Laser Localization	Can Kayacan	26.05.2014 09:22	passed
Optical Distance Indicator (ODI) @ iso	Can Kayacan	26.05.2014 09:22	failed
Collimator Size Indicator	Can Kayacan	26.05.2014 09:22	passed
Light / Radiation Field Coincidence	Can Kayacan	26.05.2014 09:22	passed
Light / Radiation Field Coincidence (Asymmetric)	Can Kayacan	26.05.2014 09:22	passed
Gantry / Collimator Angle Indicators	Can Kayacan	26.05.2014 09:22	passed
Jaw Position Indicators (Symmetric)	Can Kayacan	26.05.2014 09:22	passed

Safety

MLC

Status

passed

failed

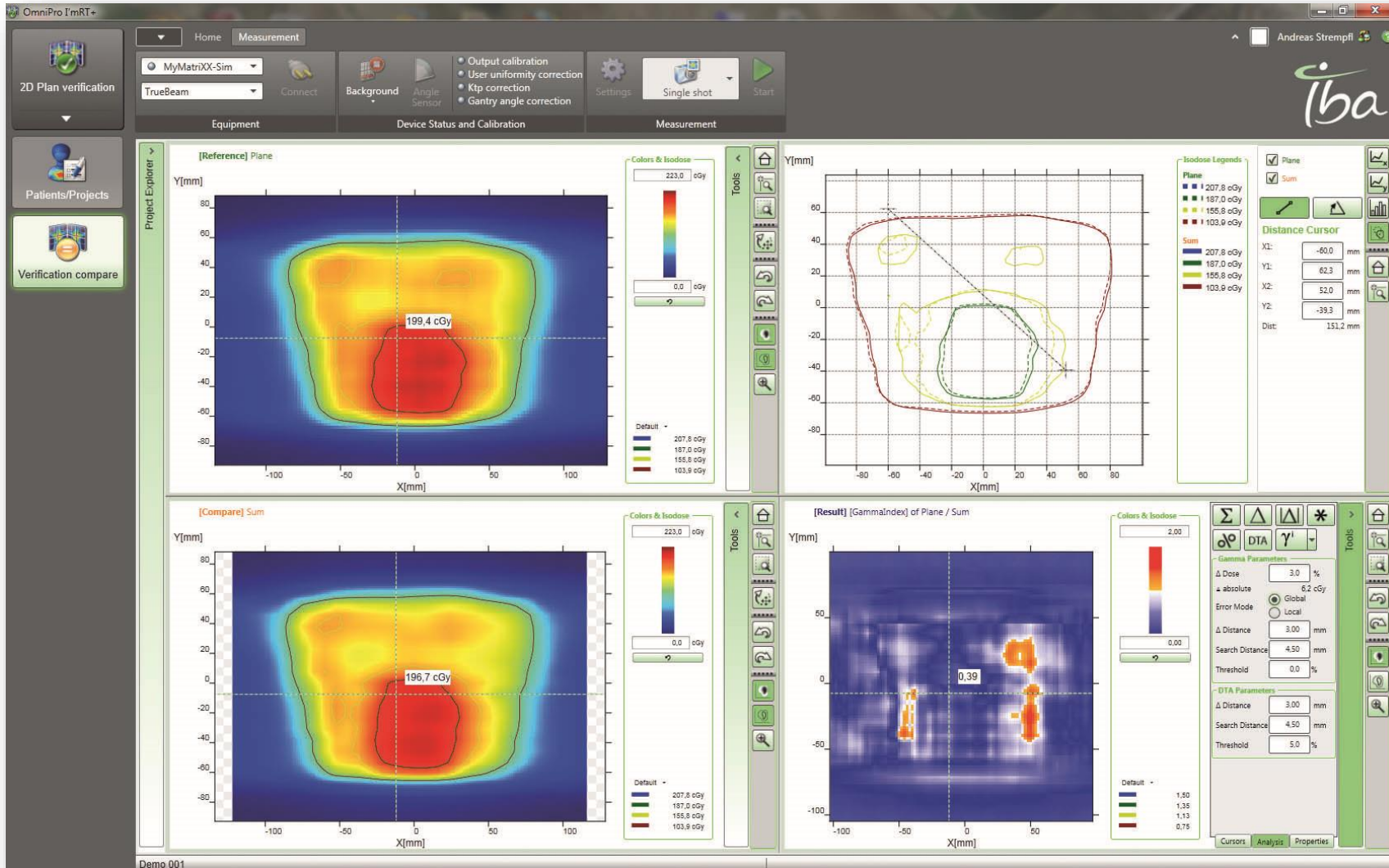
passed

passed

passed

passed

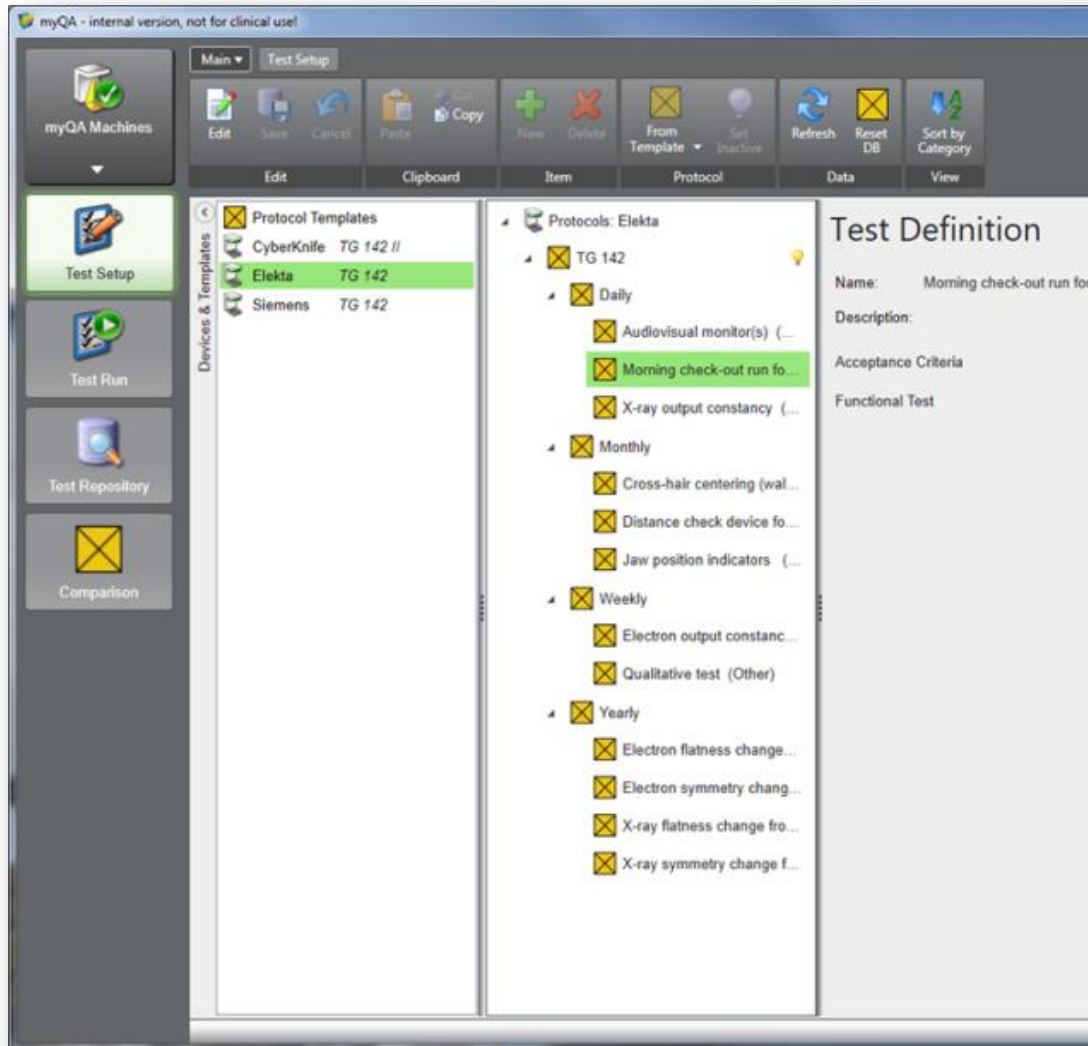
passed



Patient Plan Verification

- ✓ **Workflow optimized** software for 2D plan verification of dose distribution in just 4 steps
- ✓ Designed to **increase your efficiency** and **reduce the patient QA time** of your IMRT and rotational cases.
- ✓ Review the status of your patient verification in the myQA Cockpit!

Appr. Status	Name	Case	Type	Appr.
>	Study Id 9611	Ohr	2D PV Matrx	Admin
?	Changed At	Breast	2D PV Matrx	
?	1	Unknown	2D PV Matrx	
?	Study Id 9611 (2)	Unknown		
?	Code review	Unknown	2D PV Matrx	
?	Test	Unknown	2D PV Matrx	
?	Study Id 9611 (1)	Unknown		
?	fff	Unknown	2D PV Matrx	
?	123	Unknown	2D PV Matrx	
?	TTP Changed at	Unknown	2D PV Matrx	
?	TTP 11841	Unknown	2D PV Matrx	
?	Sabine Test project	Unknown	2D PV Matrx	
?	2	Unknown	2D PV Matrx	
?	TTP 13456	Unknown	2D PV Matrx	

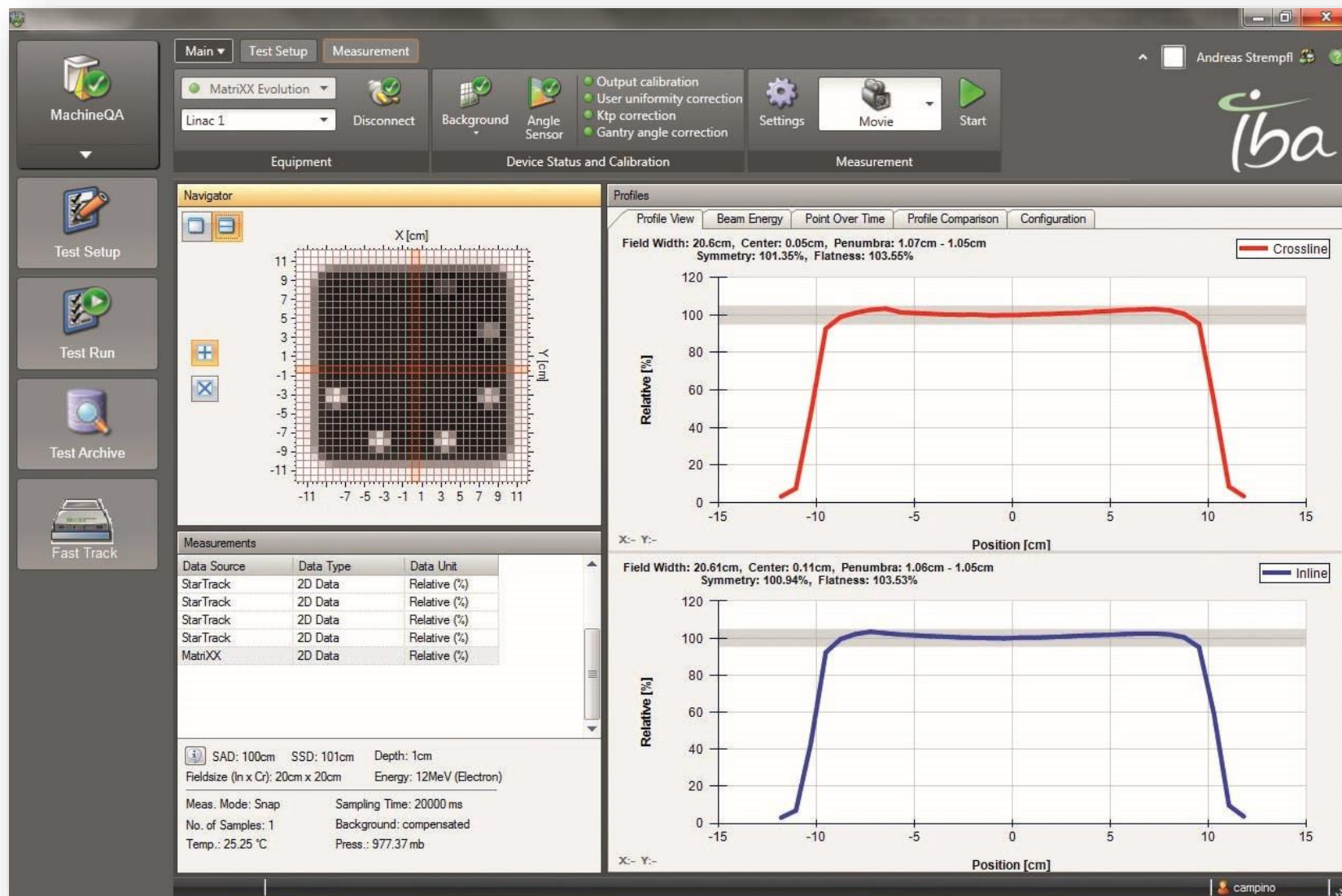


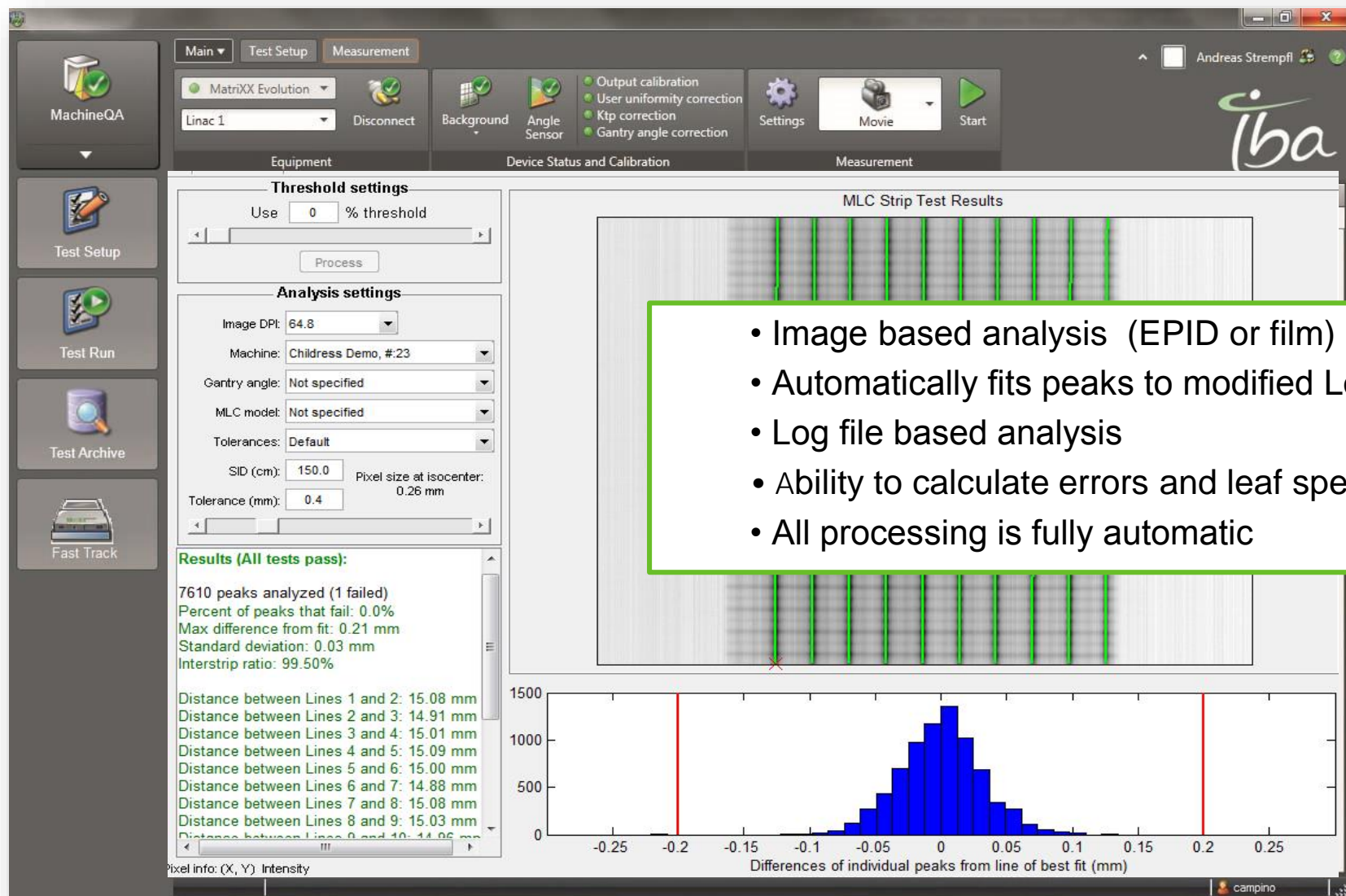
Protocol based Machine QA

- ✓ **Generic tests** and **customizable protocols** (expected results, references & tolerances, frequency)
- ✓ Complete machine QA according to TG-142
 - Dosimetry with ST or MXX
 - CBCT QA
 - EPID QA
 - MLC QA based on log files or images
- ✓ Scheduler: Manage your tasks. Manage your time.
- ✓ Import of water phantom data to be used as reference data or for annual QA (e.g. from OP Accept)

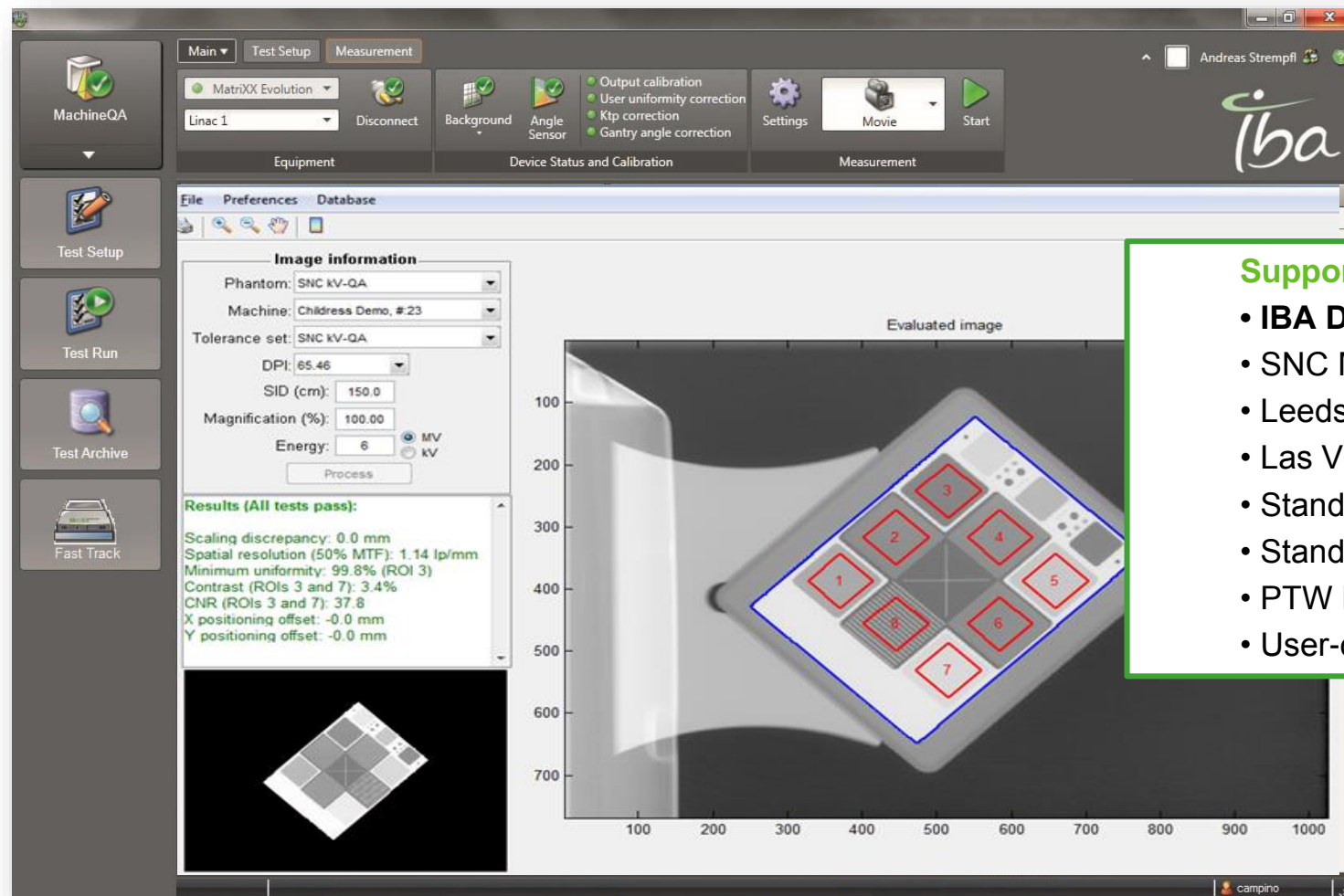
Machine QA in 3 steps:

1. Test Setup
2. Test Run
3. Test Archive



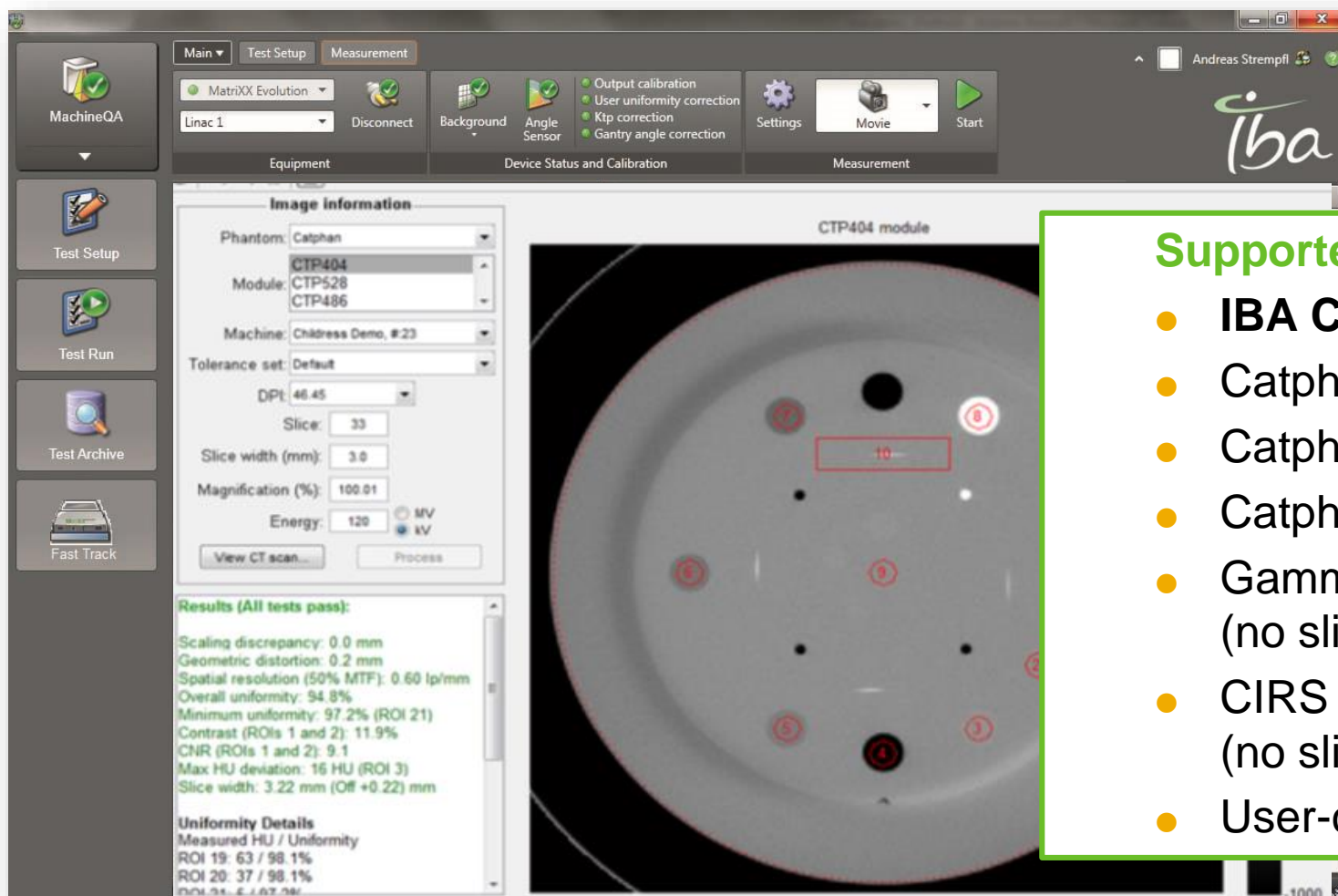


- Image based analysis (EPID or film)
- Automatically fits peaks to modified Lorentzian function
- Log file based analysis
- Ability to calculate errors and leaf speeds only for a few test fields
- All processing is fully automatic



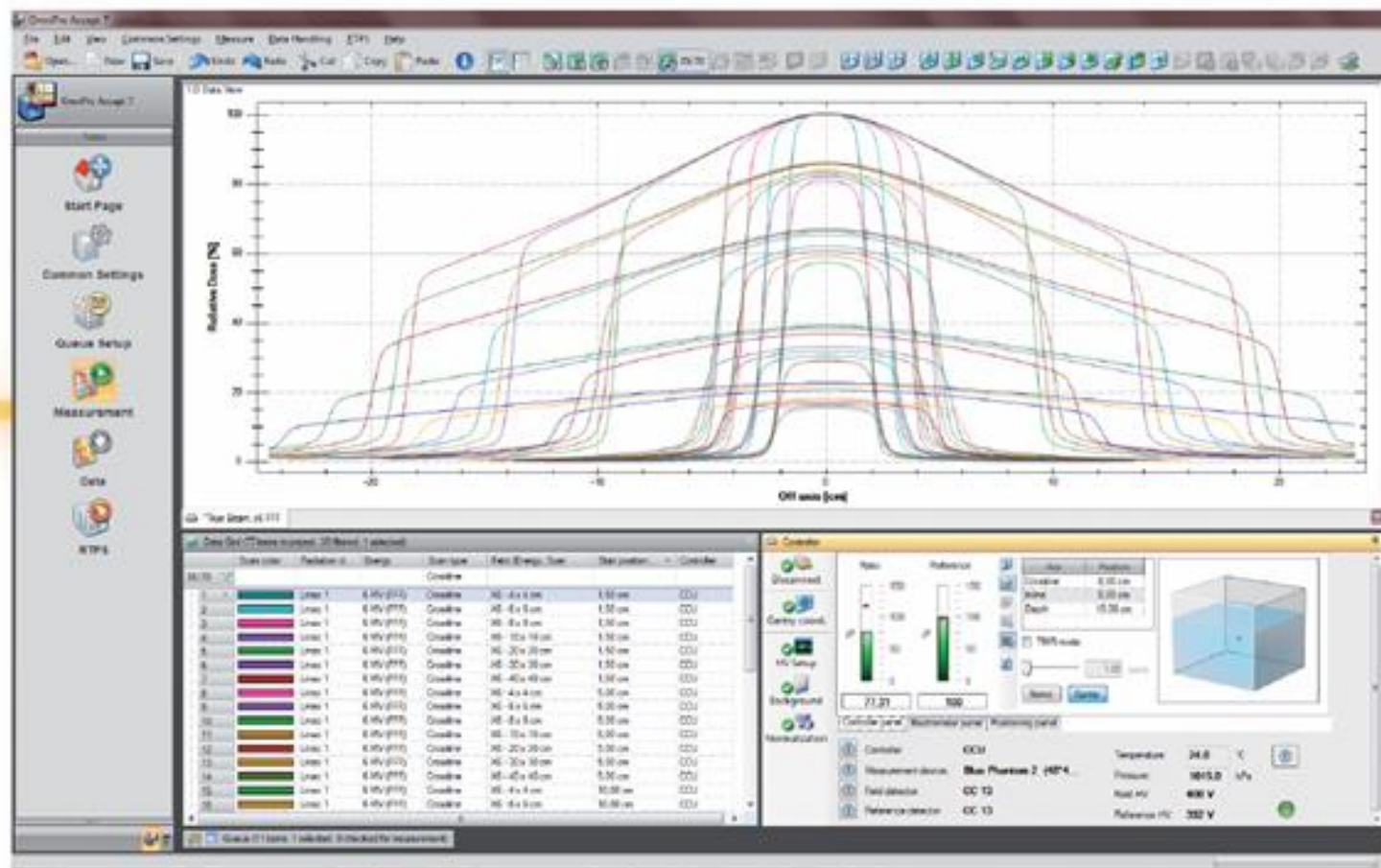
Supported Imaging phantoms

- **IBA DIGI-13, IBA Primus**
- SNC MV and kV Image-Pro phantoms
- Leeds TOR 18FG (included with IGRT linacs)
- Las Vegas (no spatial resolution, included with linacs)
- Standard Imaging QC-3
- Standard Imaging QC-kv1
- PTW EPID QC (no positioning or scaling)
- User-customizable additions



Supported CT phantoms

- **IBA CBCT phantom**
- Catphan 503 (Elekta IGRT linacs)
- Catphan 504 (Varian IGRT linacs)
- Catphan 600
- Gammex 464 ACR Accreditation Phantom (no slice width)
- CIRS 610 AAPM CT Performance Phantom (no slice width or spatial resolution)
- User-customizable additions



Commissioning and annual Linac checks *

Use the power of the Blue Phantom system for establishing your high accuracy profiles

Easily integrate your profiles and PDDs e.g. into your myQA Machine as a daily reference to your gold standard!

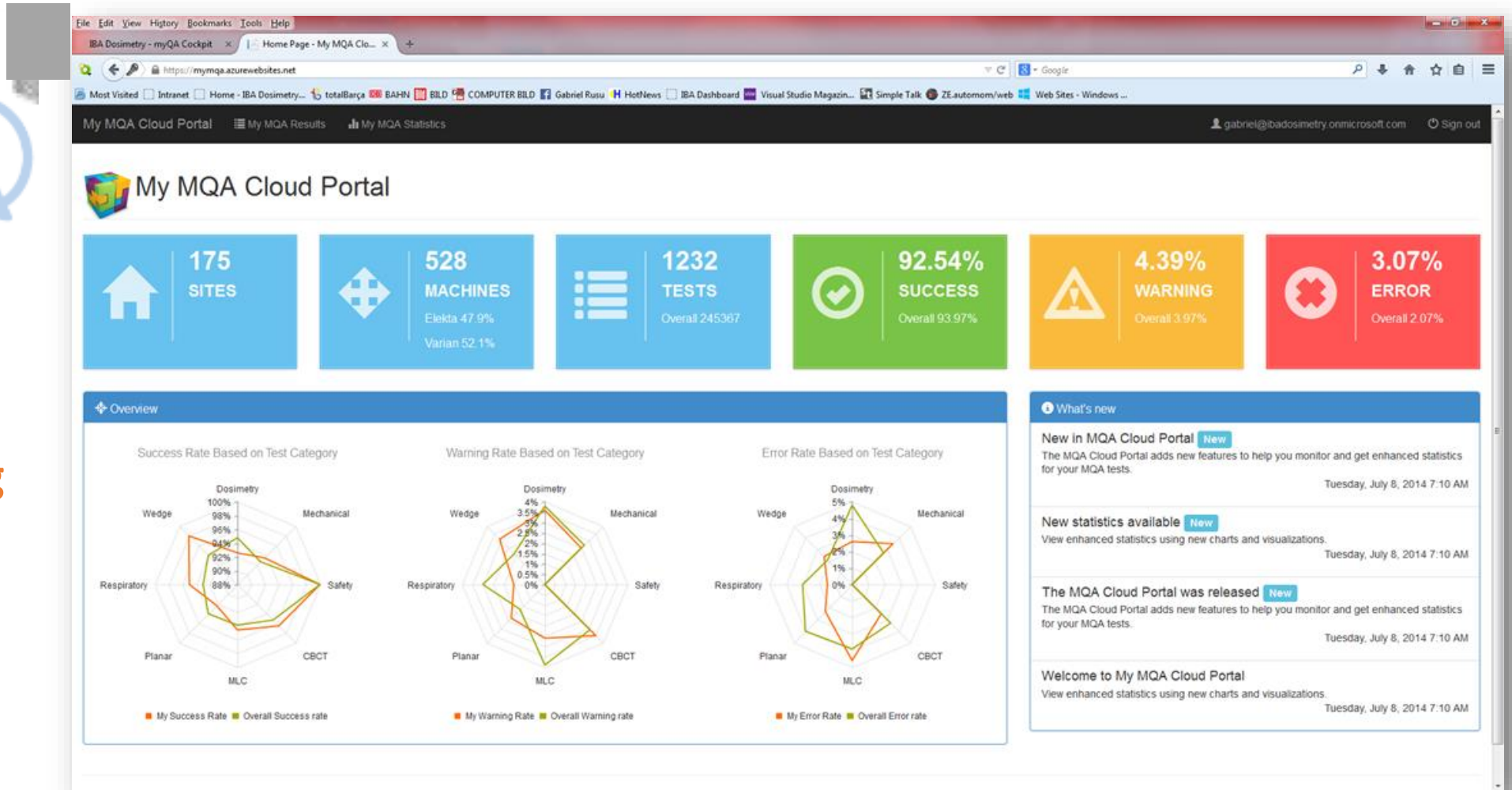


Blue Phantom Family



Storage

Benchmarking

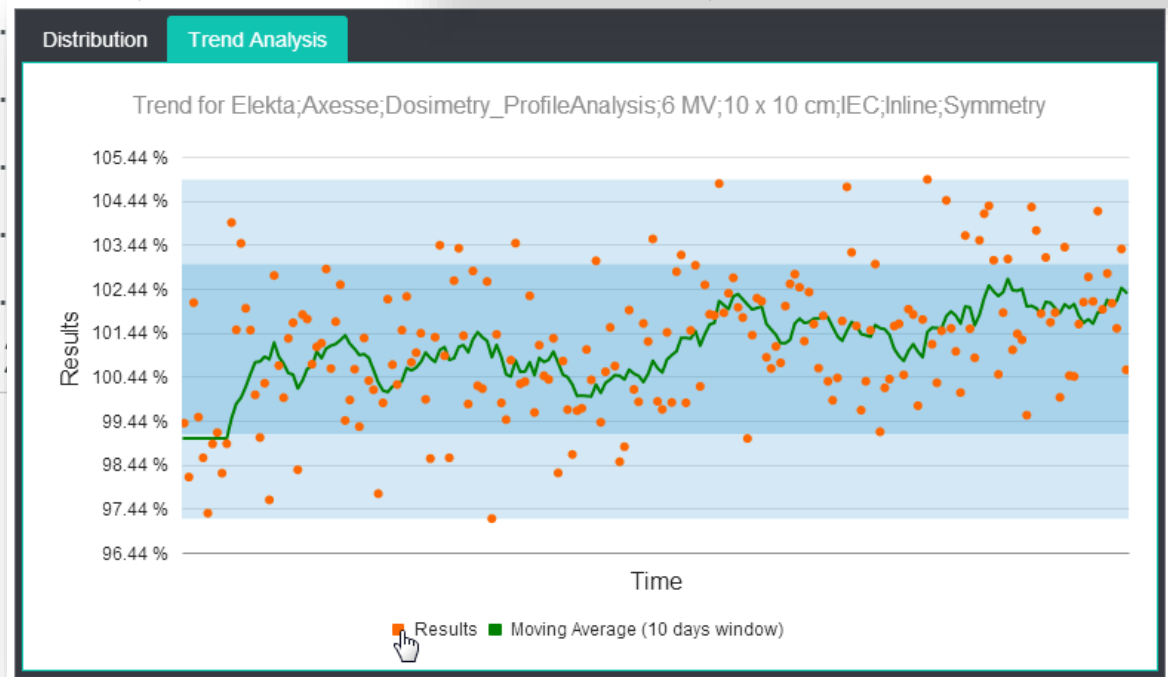
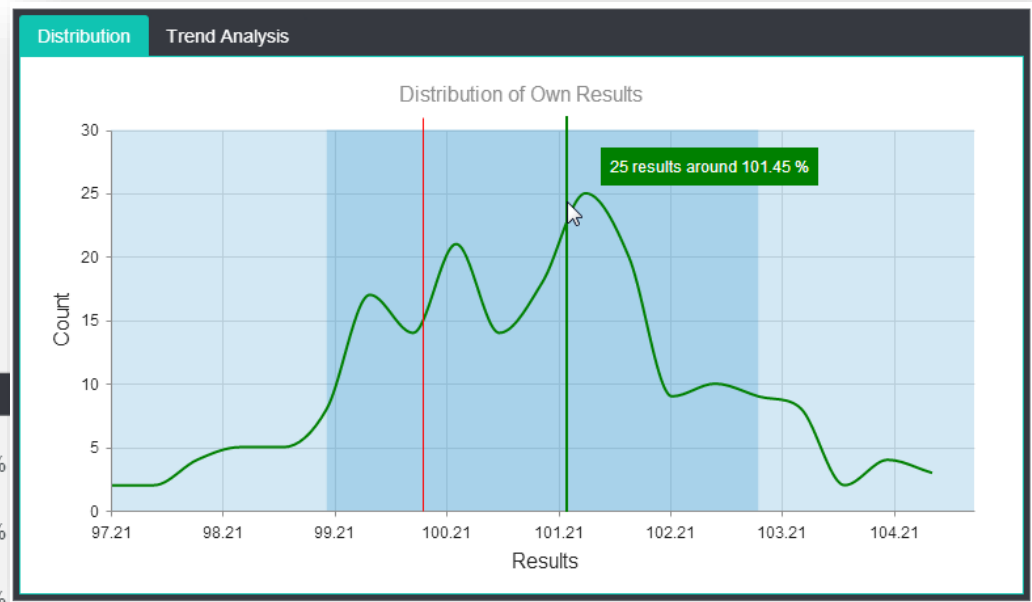




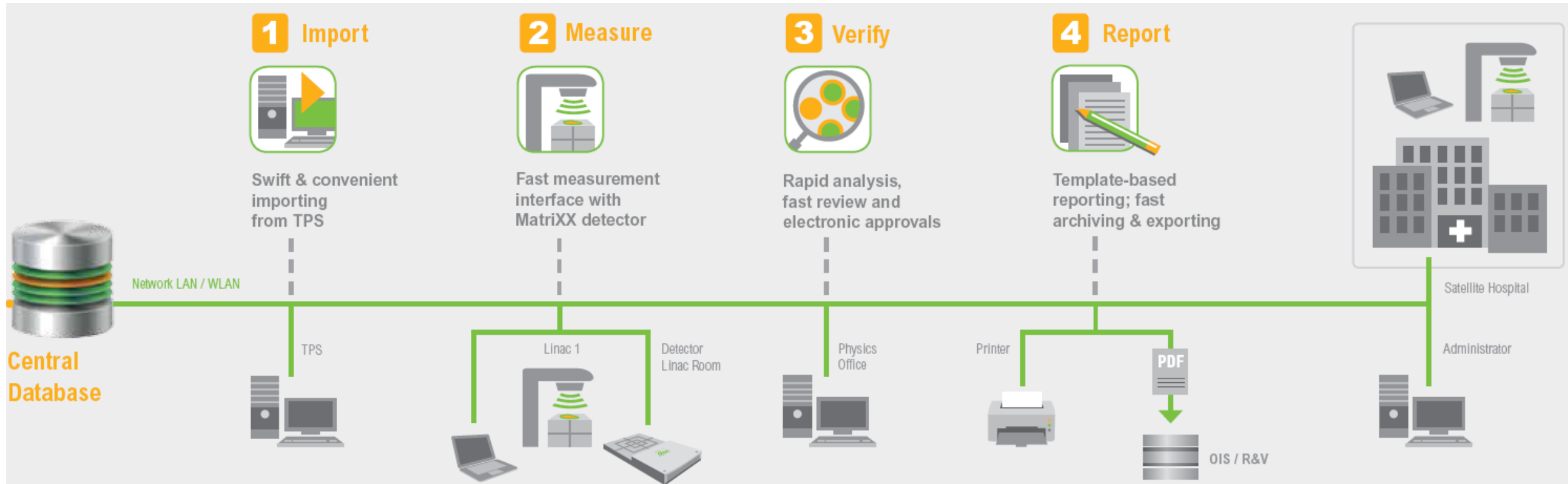
Storage

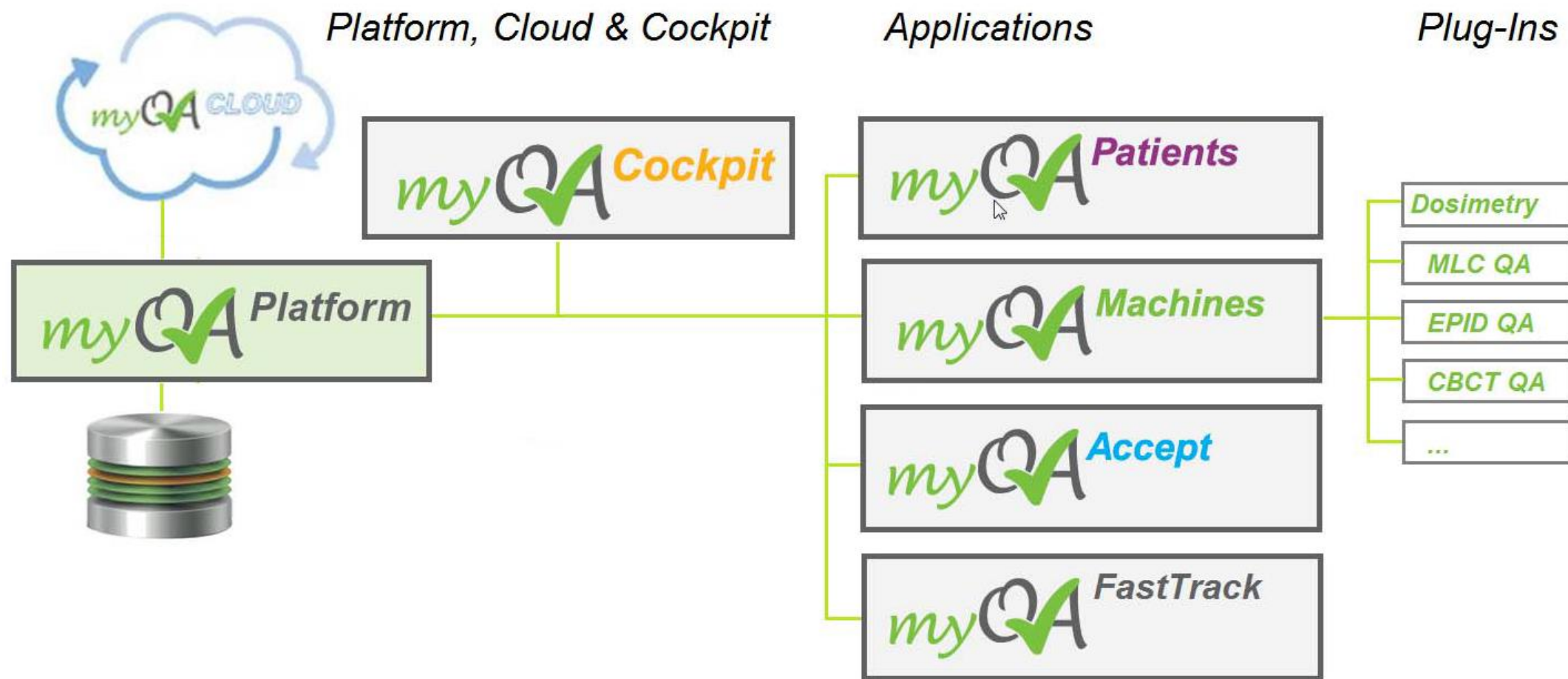
Benchmarking

Statistics	Own Results	Overall Results
Mean	101.18 %	99.98 %
StdDev	1.54 %	1.50 %
Variance	2.38 %	2.25 %
Median	101.18 %	99.98 %
Skewness	0.00	0.00
Range	7.00	7.00
Min	97.18 %	97.18 %
Max	104.18 %	104.18 %
Count	25	25

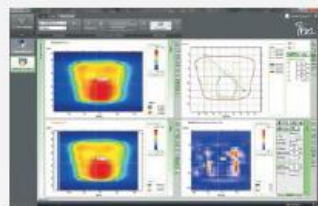


Central Database - Workflow Efficiency



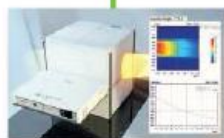


myQA Patients (OmniPro-ImRT+)



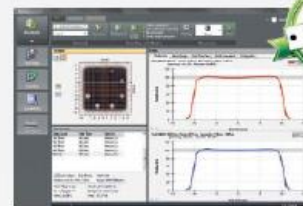
New 2D Plan Verification

- Intuitive and efficient workflow in 4 optimized steps
- New software based on experience with > 1600 OmniPro-ImRT users



Integrate your MatrixXX and OmniPro-ImRT+ into your myQA platform

myQA Machines (TG-142)



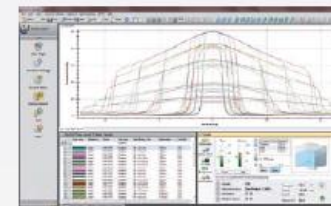
New Machine QA

- Complete protocol based machine QA (default: TG-142)
- Plug ins for automated test runs such as: Dosimetry, MLC QA, Imaging QA (EPID, CBCT), Room QA, etc.



Connect your existing MatrixXX or StarTrack detectors

myQA Accept (OmniPro-Accept)



Commissioning & Annual QA

- Connect your existing OmniPro-Accept software to the myQA Platform
- Benchmark your data in the cloud and use scans as test results or individual reference



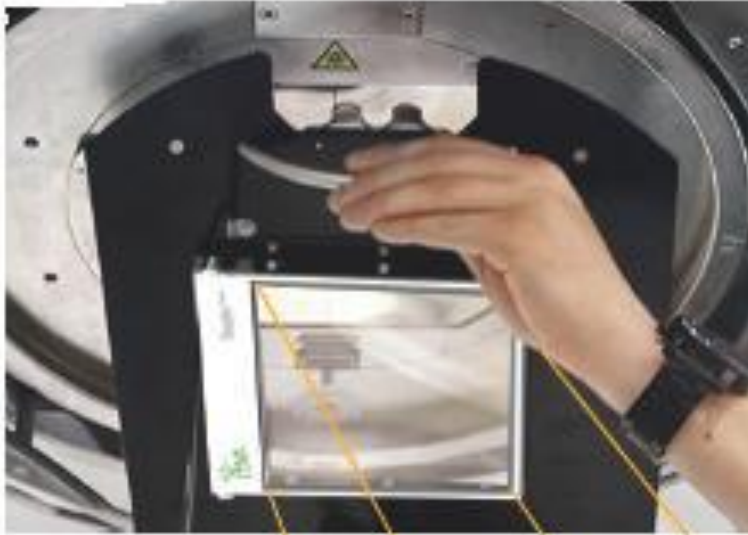
Integrate your IBA Water Phantoms and existing OmniPro-Accept software

myQA FastTrack

- Connect to your StarTrack* or MatrixXX detector
- Start Measurement
- Instant display of results and real-time analysis (e. g. for beam steering)
- **Import and Export of data files for quick comparison**

StealthChamber™

Unique Design

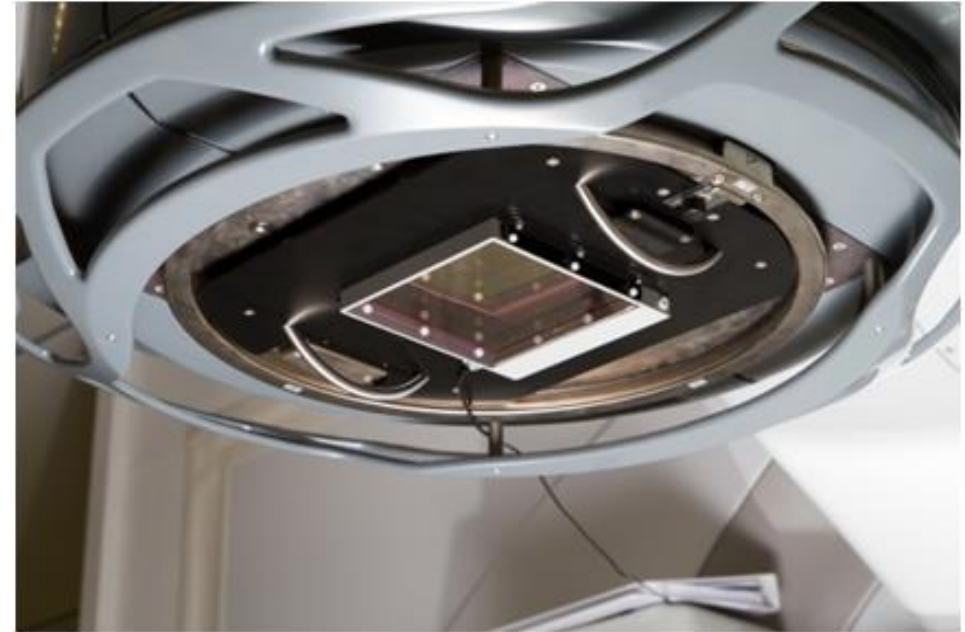


- Perturbation free “beam invisible” reference signal chamber for relative dosimetry
- Transmission detector design
- Patent pending

Chamber and field size displayed in real size:



StealthChamber™

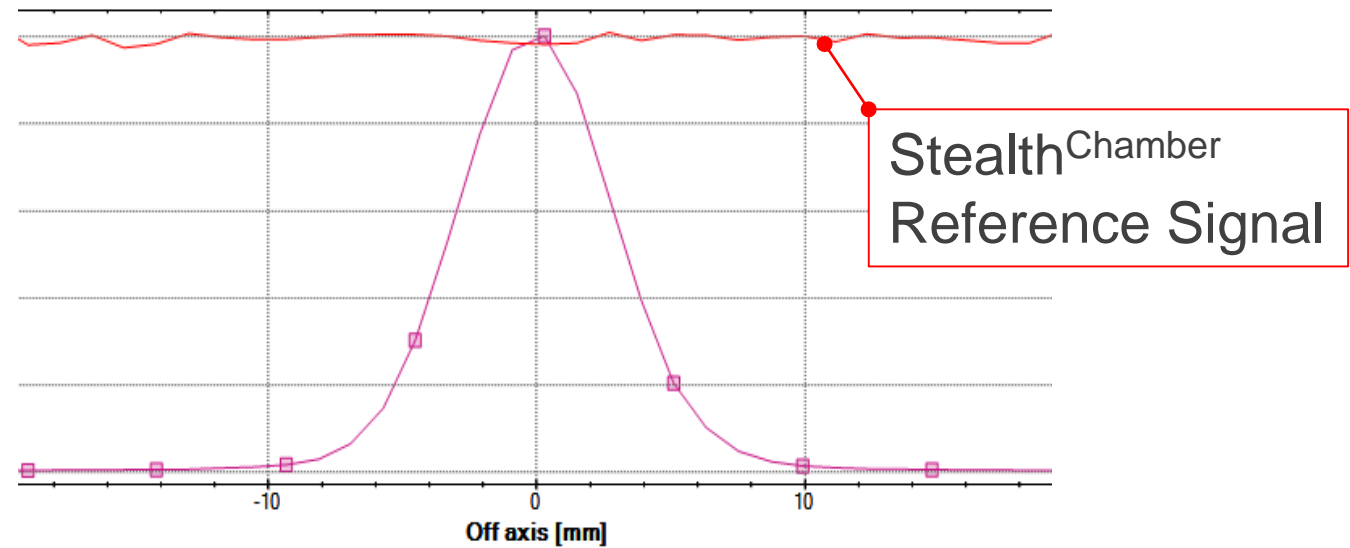
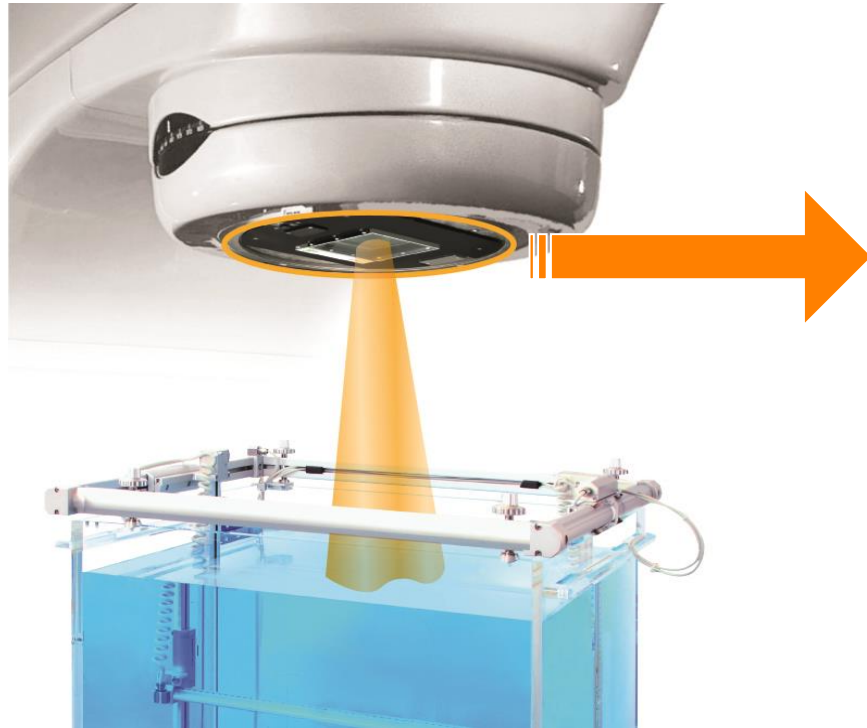


Square **Stealth**^{CHAMBER} (active field size 15x15 cm) while mounting on ELEKTA LINAC head using ELEKTA adapter

Stealth^{CHAMBER} Mounted on ELEKTA-Synergy head

Uncompromised Accuracy

- Excellent reproducible reference signal quality
- Perturbation-free signal for consistent high accuracy



Field size: 5 mm x 5 mm, measured with continuous scanning mode!

Uncompromised Speed and Accuracy!



Stealth^{Chamber}™

your reference signal chamber to

- Overcome the need to compromise between signal accuracy and workflow efficiency
- Scan with superior quality and continuous measurements
- Even for small SRS cones

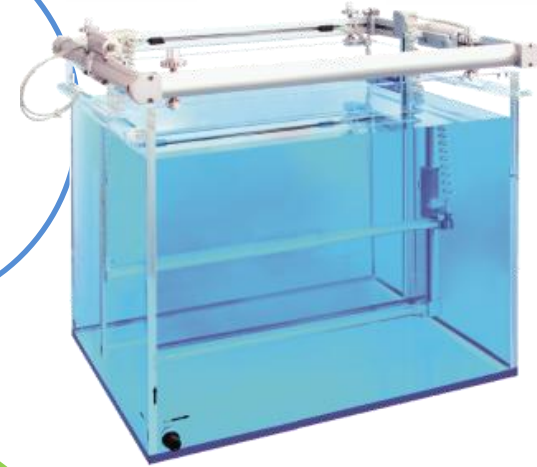
Universal Plug & Play

- Stealth^{Chamber} for IBA water phantom family
- No additional system upgrades or modifications needed



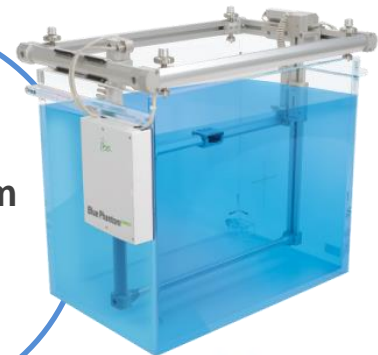
**Blue
Phantom
Helix**

**Blue
Phantom²**



**Stealth
Chamber**

**Blue Phantom
Compact**



Dedicated mounting plate for Varian / Elekta

Varian



Elekta



Cable mounting



Blue Phantom^{COMPACT} **Leading Functionality**



- Entirely based on the proven **Blue Phantom²** water phantom solution

**fastest,
most accurate,
most reliable
beam scanning!**

Blue Phantom^{COMPACT} Compact Footprint

- 2D high-end water phantom with smaller dimensions and minimized weight
- Easy transportation with more efficient use e.g. for annual checks
- Optimized for satellite hospitals and commissioning service providers



Scanning area in water	478 x 410 mm (X/Z)
Water-Tank dimensions (exterior)	645 mm x 407 mm x 550 mm (L,W,H)
Approximate volume	116 l
Weight empty / filled with water	36 kg / 152 kg max (79.4 / 335 lbs)

Blue Phantom^{COMPACT}

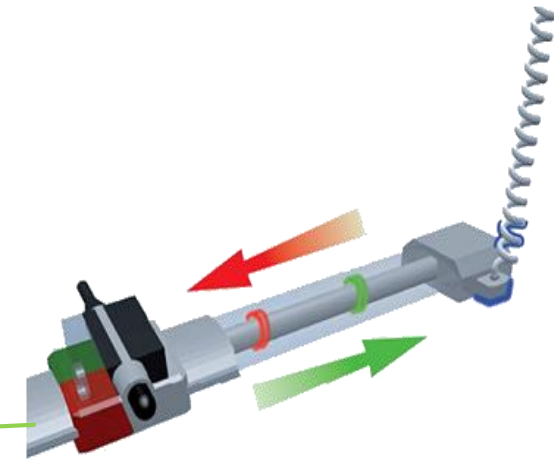
Outstanding Design, Unique Advantages

- Optimized speed & resolution in different profile segments
- Efficiency, highest Accuracy and Peace of Mind



Micro-leveling

- in just 2 min
- highly accurate
- user validation build into process!



Unique detector positioning system

- absolute positioning
- accuracy 0.1 mm
- guaranteed and certified

Blue Phantom^{COMPACT}

Powerful Combination for Ultimate Small field Dosimetry

Stealth^{CHAMBER}

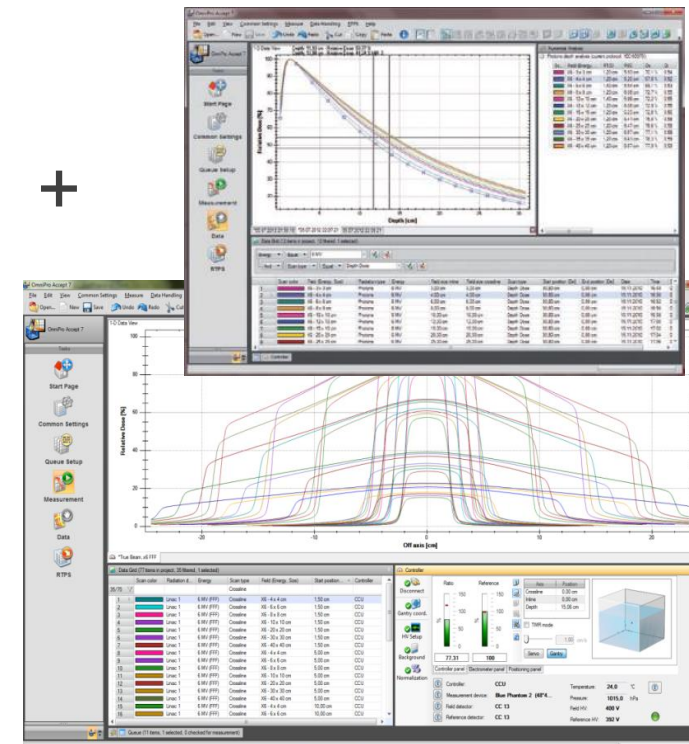
Blue Phantom^{COMPACT}
& CCU



+ „new“ SFD:
IBA Streotactic Diode
2nd generation



+



OmniPro Accept 7.4

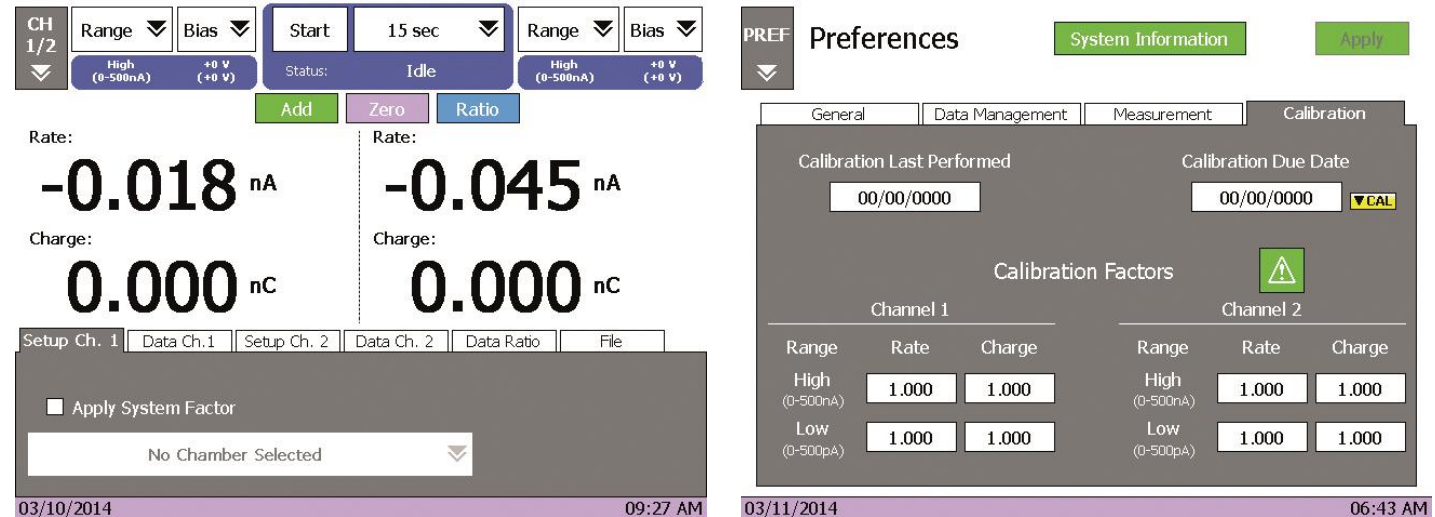
DOSE² High-Performance



- Dual-Channel Reference Class Electrometer for reference dose and dose rate measurements in radiation therapy

Independent Dual-Channel

- Two independent measurement channels



- Independent control of applied system factor, range and bias voltage **+/- 1000V**
- Wide measurement range for advanced applications

Accuracy and Stability

- Reference Class Electrometer
- Significantly exceeds IEC 60731 and AAPM ADCL recommendations

Performance Characteristics	IEC 60731 Limits	DOSE ²
Resolution		1 fC
Repeatability	+/- 0.25%	± 0.1%
Long-term stability	+/- 0.5% Over 1 year	± 0.5% (over 1 year)
Zero Drift	+/- 0.5%	± 0.25%
Zero Shift	+/- 0.5%	± 0.25%
Non-Linearity	+/- 0.5 %	± 0.25%
Response Time	< 3 sec	< 2 sec on high range < 12 sec on low range
Stabilization Time	+/- 0.5% Min Rated Range = 15 min to 6 hr	± 0.1%
Range Changing	+/- 0.5%	± 0.25%
Dose Rate Dependence	+/- 0.5%	< 0.5%

Workflow Efficiency



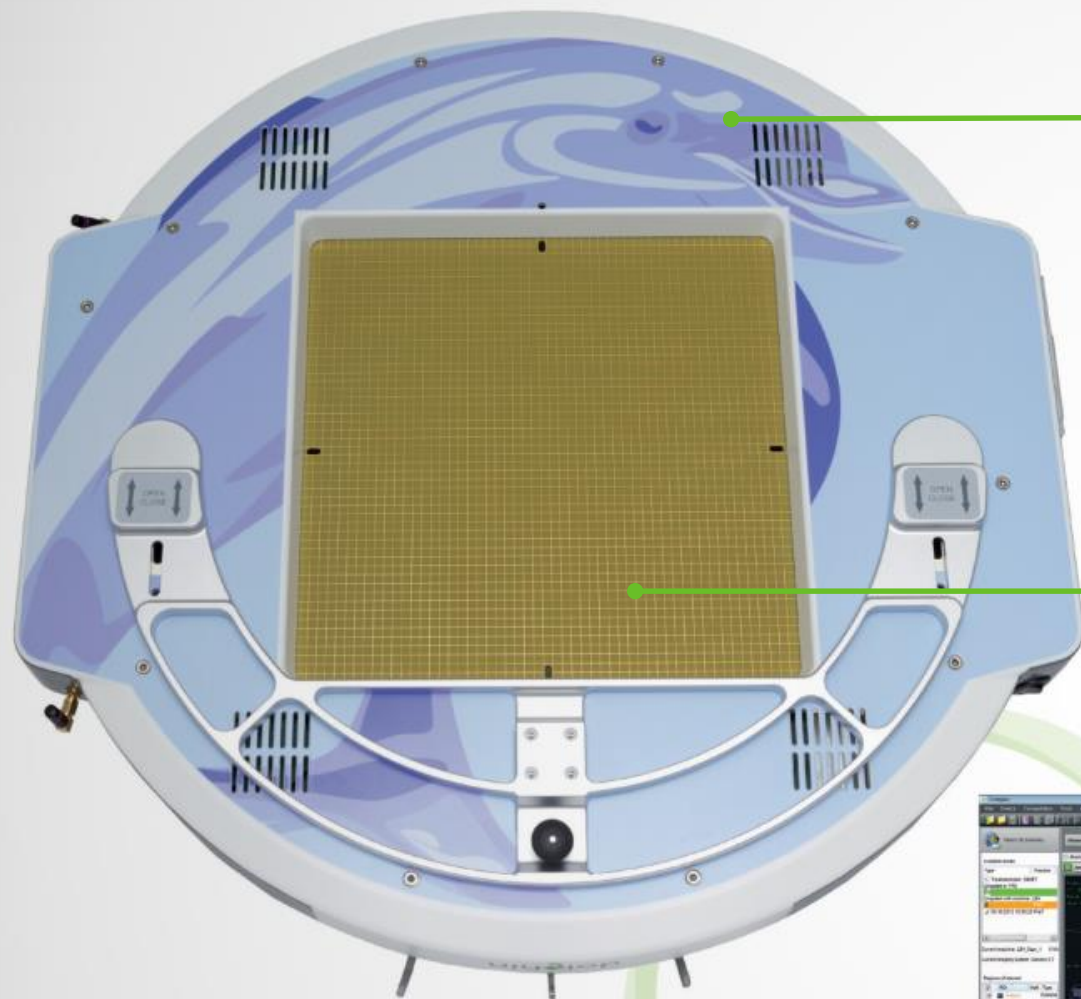
- Threshold triggered measurement mode
- Intuitive touchscreen operated interface
- Simple data export via USB



ONLINE TREATMENT MONITORING

ONLINE CONTROL

- ▶ Real time measurements
- ▶ Verification of entire treatment chain
(end to end test)
- ▶ Independent measurement-based verification



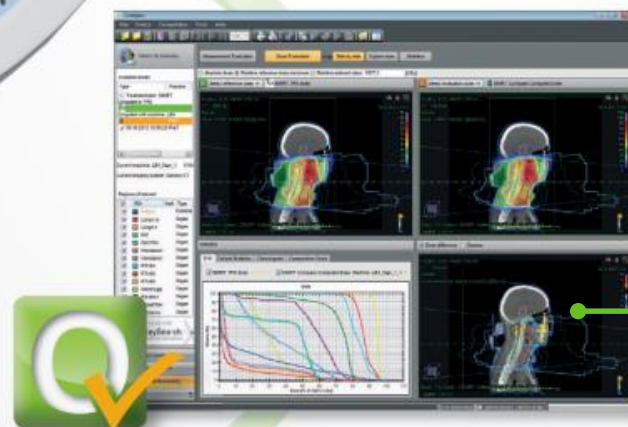
**ONLINE
Care™**

- ▶ Patient Comfort
- ▶ Therapist Support
- ▶ Patient Attraction



**ONLINE
Control™**

- ▶ Online Treatment
- ▶ Increased QA Efficiency
- ▶ Independent Verification



**ONLINE
Confidence™**

- ▶ More Care
- ▶ More Control
- ▶ More Confidence

dolphin™



High-resolution, high-accuracy detector array

- Measures the real treatment instead of pre-treatment beam
- Detector is perpendicular to the beam, no angular dependence

Optimized for rotational treatments

- Built-in angle sensor
- Measure beam segments per gantry angle and time (4D)

Slim design

- Maximum clearance
- Supports SRS / SBRT cases with couch angles

Unique patient-friendly design

- Higher patient comfort and peace of mind for better treatment compliance
- More relaxed and stable patient which leads to a better outcome

Unique: Full treatment confidence from the plan to the last fraction

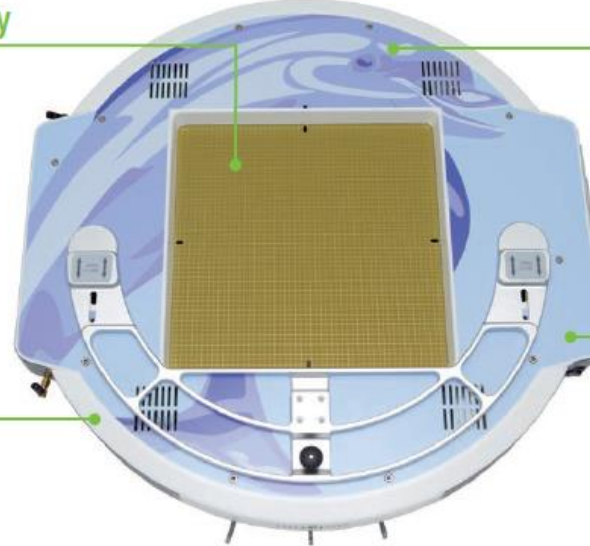
- **Online** patient treatment monitoring during each fraction
- **Pre-treatment** TPS plan verification supported

Easy attachment

- Varian / Elekta linac head accessory mounts supported

Cable-free design

- Wireless data connection
- Battery powered, easy to exchange in seconds





Thank you for your attention!