

### Delta4 Family Choose your patient QA tools to fit your process



We drive the development of solutions for safer radiation therapy

### Delta<sup>4</sup> by ScandiDos

Reinforcing confidence in radiation therapy by making the process safe and efficient.

We are ScandiDos – an innovative forward-thinking company with groundbreaking software and hardware solutions for patient quality assurance in modern radiation therapy.

**The Delta4 Family** of products delivers a comprehensive patient QA solution, ensuring safe and accurate treatment. By using innovative solutions that further individualize radiation treatment, we make the process safe and efficient – while reinforcing confidence in radiotherapy clinics.

### Empowering professionals with power and performance.

Our organization is a trusted authority when it comes to improving the daily workflow of medical physicists. We give them the tools and confidence they need to ensure clinic efficiency, accuracy, and patient safety.

The Delta4 brand guarantees efficient, accurate, and compelling patient QA products for medical physicists and physicians worldwide.



# We give you confidence

As a medical physicist, you demand easy workflow, easy handling, and instant results. At ScandiDos, we are dedicated to helping medical physicists like you optimize their patient QA processes and deliver safe, accurate treatment. Our innovative patient QA products offers groundbreaking software and hardware solutions that make your job easier and more efficient. We are proud to offer the Delta4 family of products, the complete solution for all your patient QA needs.

Invest in the future of radiation therapy with Delta4 and benefit from the highest level of accuracy and efficiency for optimal patient outcomes.

THE DELTA4 FAMILY - DESIG	I YOUR ULTIMATE PATIENT OA SOLUTION
PLANNING	PRE-TREATMENT AT TREATMENT
DELTA4 INSIGHT	DELTA4 PHANTOM+ DELTA4 DISCOVER
	DELTA4 PHANTOM+ MR
	DELTA4 HEXAMOTION
	DELTA4 DISCOVER

#### **INDEPENDENT PATIENT QA FROM PRESCRIPTION TO FINAL FRACTION**

With the Delta4 family, you have full control over the patient QA process and can optimize your workflow to meet your specific needs and demands. The Delta4 family includes a range of products for planning, pre-treatment, and at-treatment dose verification, covering all modern treatment technologies, including VMAT, IMRT, SRS/SBRT, 4D-RT, MRgRT, bore-based linacs, and TomoTherapy.

With **Delta4 patient QA from prescription to final fraction** you will increase your workflow efficiency and always be confident that the dose delivered to your patient also is what you had planned.

#### **DELTA4 – ONE SOFTWARE PLATFORM FOR FULL CONTROL**

We built in user-friendliness from the very start, with a single software for all applications. The Delta4 software supports the entire product family using one common patient database and one seamless workflow. Our products are highly reliable and always perform their tasks correctly, making them ideal for advanced treatment plans and the commissioning and validation of new treatment techniques. Delta4 products are all are designed with ease of use in mind, so you can focus on what matters most: providing the best possible care for your patients.

#### Powerful and intuitive software

The Delta4 software platform is user-friendly and fully integrated into the clinical workflow, making it easy to import TPS plans and structures and push the data from TPS to Delta4 SW. Your patient QA results are instantly available and customizable QA reports allow you to tailor the information to your specific needs. The software module provides an algorithm-independent, accurate assessment of the delivered dose to the patient, giving you confidence that your treatment plans are being followed accurately.

#### WE SUPPORT YOU ALL THE WAY

In addition to their technical capabilities, Delta4 products are also supported by a dedicated and experienced team of experts who are committed to providing the highest level of customer service. The team is available to provide support and assistance, and to help clinics get the most out of their products.

The Delta4 Phantom+ is a valuable tool for us at Herlev Hospital. We find great value in having an independent verification of treatment plans, and we have a complete range of Scandidos' Delta4 products covering TrueBeams, Halcyons, and MRIdian.

Ulf Bjelkengren Technical Manager, M.Sc., Medical Physics, Herlev and Gentofte Hospital

#### **INDEPENDENT PATIENT QA FROM PRESCRIPTION TO FINAL FRACTION**

**A complete solution for all your patient QA needs** the Delta4 Family of products delivers patient QA from prescription to final fraction. Not only can you expect to increase your workflow efficiency but, most importantly, you can also carry out your work with full confidence that the treatment dose delivered to your patient is safe. We reinforce the confidence in radiotherapy clinics, using innovative solutions that further individualize the radiation treatment, making the process safe and efficient.

We offer a variety of products to support the entire treatment process, including Delta4 Insight for planning, Delta4 Phantom+, Delta4 Phantom+ MR and Delta4 HexaMotion for pre-treatment validation, and Delta4 Discover for both pre-treatment and at-treatment validation.

The Delta4 software supports the entire product family using the same patient database and one seamless workflow.

## **Delta4 Insight**

#### PLANNING

#### Verify the accuracy of your treatment plans

Delta4 Insight is a high-standard Monte Carlo-based Secondary Dose Calculation software that ensures the dose you've planned for your patient is correct in all clinical situations. Seamlessly integrated with the Delta4 software, it verifies the accuracy and quality of your plans with a fast and accurate fully automated process, achieving an accuracy of 1%/1mm.

With customizable protocols, flexible commissioning, and the ability to use golden data or your own, Delta4 Insight answers the vital questions about your treatment plan's accuracy, all while saving you time and effort. Don't risk compromising the quality of your entire treatment chain - trust Delta4 Insight for accurate plan verification.



- Independent verification: Delta4 Insight provides an independent dose calculation to ensure the accuracy of treatment plans, giving you peace of mind in all clinical situations.
- Monte Carlo-based dose calculation: Delta4 Insight uses a state-of-the-art Monte Carlo engine for precise dose calculation with an accuracy of 1%/1mm, considered the gold standard in radiotherapy.
- Fully automated and integrated: Delta4 Insight seamlessly integrates with the Delta4 software, providing instant results and saving you time and effort.
- Flexible commissioning and customization: Delta4 Insight offers flexible commissioning and customization options, allowing you to adapt to specific objectives and fulfill regulatory requirements.
- Easy workflow and comprehensive patient QA: Delta4 Insight comes with intuitive analysis tools and provides a full overview of each patient treatment, giving you total control from prescription to final fraction in an efficient way.

## Delta4 Phantom+

#### **PRE-TREATMENT**

#### Accurate patient QA in less time than ever

The Delta4 Phantom+ is the fastest and most accurate 4D verification system on the market. It offers the most efficient and accurate verification of IMRT, VMAT, Halcyon, Radixact, and TomoTherapy plans, and is the only system that measures the dose distribution in the isocentric region rather than a single flat or wrapped plane.



The Delta4 Phantom+ is equipped with patented geometric, dual orthogonal detector planes and specialized detectors that make it a unique QA system that fulfills the requirements in TG-218.

- The Delta4 Phantom+ is a must-have for any radiation therapy clinic, offering accurate and reliable measurements for optimal treatment outcomes
- With its high-resolution detector array, the Delta4 Phantom+ provides unparalleled accuracy in characterizing complex treatment fields, ensuring the highest level of patient safety
- Say goodbye to the hassle and downtime of traditional patient QA methods the Delta4 Phantom+ is easy to use and can be quickly set up for various measurements, saving you valuable time and resources
- The Delta4 Phantom+ is the ultimate QA solution, compatible with multiple treatment machines and seamlessly integrated into existing workflows, ensuring minimal disruption to your clinic's operations
- Invest in the future of radiation therapy with the Delta4 Phantom+, a tool that delivers the highest level of accuracy and efficiency for optimal patient outcomes.





As a Clinical Scientist, I value the straightforward, meaningful data that Delta4 provides. The wireless functionality of the Delta4 Phantom+ makes it so quick and easy to use, it's even been described by one member of staff as 'an absolute dream'.

#### Karen Hawthorn Clinical Scientist, Newcastle upon Thyne Hospitals NHS Foundation Trust

## **Delta4 Phantom+ MR**

#### **PRE-TREATMENT**

#### Accurate patient QA in less time than ever

The Delta4 Phantom+ MR is a specialized version of the Delta4 Phantom+ designed for use with MR-linacs. Sharing the same qualities as the original phantom, the Delta Phantom+ MR is MR-compliant for field strengths up to 1.5T and offers the most efficient and accurate verification of Elekta Unity and ViewRay MRIdian.



- The ideal solution for patient QA in radiation therapy for MRI-linacs
- Unique design allows for accurate and reliable measurements of dose distributions in MR-linac environment
- Equipped with high-resolution detector array that enables sub-millimeter spatial resolution, making it an ideal tool for characterizing complex treatment fields
- Compatible with multiple treatment machines, and can be integrated seamlessly into existing patient QA workflows, ensuring minimal disruption to your clinic's operations, and providing confidence in the delivery of accurate treatments.





The Delta4 Phantom+ MR is quick and easy to use and give us confidence that our treatments are delivered just as they are intended.

Wilfred de Vries Clinical physicist engineer, UMC Utrecht

## **Delta4 HexaMotion**

#### **PRE-TREATMENT**

#### The tumor moves and so does the Delta4 HexaMotion

Delta4 HexaMotion is the ultimate solution for motion management QA in radiotherapy. With its ability to recreate the movement of tumors in six dimensions and independently simulate patient breathing motion, HexaMotion helps ensure tumor control and accurate treatment. When paired with the Delta4 Phantom+, Delta4 HexaMotion can verify the effects of intra-fractional motions and identify which patients or groups of patients require motion management techniques.



Delta4 HexaMotion offers unparalleled convenience and efficiency, with a quick and easy setup process, a trolley that eliminates lifting, and remote-controlled alignment. Don't let intra-fractional tumor movements compromise your treatment - choose Delta4 HexaMotion for reliable and accurate motion management QA.

- State-of-the-art 6D motion management system
- Real-time tracking and monitoring of patient's internal organ motion, allowing for accurate treatment delivery and improved patient outcomes
- Featuring an advanced tracking algorithm, ensuring high accuracy and reliability in all types of treatment, including SRS, SBRT and hypofractionated treatments.
- Easy to use and can be integrated seamlessly into existing clinic workflow, ensuring minimal disruption to clinic operations.
- The Delta4 HexaMotion provides physicians and physicists with the necessary data and tools to optimize treatment plans and deliver the highest level of patient care and safety.



The Delta4 Phantom+ with Delta4 Hexamotion helps me feel assured that my machine can deliver the dose that is promised to the patient, that it is done safely, and I get fantastic results from it.

Aaron A. Kempenich MSc, DABR, Medical Physicist and radiation safety officer, Altru Cancer Center, Grand Forks, ND

### **Delta4 Discover**

#### **AT TREATMENT**

#### Transmission detector for at treatment patient QA

Delta4 Discover is a game changer in patient QA for radiation oncology clinics. As the first and only transmission detector approved for clinical use during treatment, it **independently** verifies that the prescribed dose is delivered to the patient in exact accordance with the prescription. This ensures enhanced patient safety and optimized patient QA workflow, replacing pre-treatment verification.



With the future of radiation therapy trending towards increasingly complex treatment plans, including 4D treatments, hypofractionation, and adaptive radiotherapy, the need for instantaneous plan approval and maximum accuracy during all stages of patient QA is greater than ever before. Our solution, Delta4 Discover, provides the utmost in confidence and patient safety while maximizing efficiency in patient QA with minimal changes to the normal workflow at the clinic.

- Real-time dose verification during treatment for enhanced patient safety and optimized patient QA workflow
- High resolution with 4040 detectors and 2.5 mm resolution for maximum accuracy
- Suitable for a wide range of applications, including 4D treatments, hypofractionation, and adaptive radiotherapy
- Minimal attenuation and minimal increase in skin dose to the patient without reducing treatment clearance
- Efficient and easy to use, with minimal changes to the normal workflow at the clinic.





When implementing the Delta4 Discover it was a very simple characterization process, we did not have to do beam modeling and the automated interfacing with the R&V system enabled a seamless workflow. It is not time consuming in our daily routine and we intend to use it continuously in all treatment fractions, and also use it for our SBRT treatments and implement it in our Machine QA program.

Dr. Edoardo Petrucci Medical Physicist, Ivrea Hospital – ASLT04, Italy

### **Delta4 Software**

#### User-friendly and fully integrated workflow

The Delta4 software platform is user-friendly and fully integrated into the clinical workflow, making it easy to import TPS plans and structures and push the data from TPS to Delta4 SW. Your patient QA results are instantly available and customizable QA reports allow you to tailor the information to your specific needs. The software module provides an algorithm-independent, accurate assessment of the delivered dose to the patient, giving you confidence that your treatment plans are being followed accurately.



- Integrated in the workflow: Keep up an efficient clinical workflow, thanks to well-integrated software. TPS plans can be easily imported together with TPS dose and structures.
- Intuitive interface: Easily navigate between patients, measurements, and analysis. All the information you need is just a click away. The QA analysis is performed automatically as soon as the dose has been delivered, instantly indicating pass or fail.
- Instant results: Your QA results, including dose deviation, distance to agreement (DTA), and gamma index, become available instantly—no further processing required. Easily customize QA reports to meet your specific needs.
- **Powerful analysis:** The unique 4D measurements yield the data needed to analyze the delivered dose for fraction, beam arc, or control point. The delivered 4D dose can also be analyzed in the patient's anatomy. The Delta4DVH suite of software modules provide unique analysis tools for finding the clinical significance of a deviation.

#### ADD ONS

#### **DELTA4DVH ANATOMY**

With the Delta4DVH Anatomy software option, you can verify and analyze the dose that has been delivered to the patient anatomy. Based on the measurements in the isocentric target region and dose calculation of the dose in the patient anatomy you now have a truly independent verification of the delivered dose. With QA based on real measurements, there's no need to trade accuracy for efficiency

- Highest accuracy with real measurements in the target region
- Instant pass/fail analysis based on dose to the tumor and OAR
- Clinical significance

#### **DELTA4 MACHINE QA**

Featuring super-fast data acquisition and advanced data analysis, Delta4 Machine QA allows you to perform QA of your linac, with respect to rotation, startup behavior, and dynamic beam modulation in no time. Easily define the test sequences that allow you to perform extended accelerator QA for IMRT and VMAT - in just a few minutes.

- Check stability with high accuracy and detailed analysis
- Beam constancy at various gantry angles
- Check the dosimetric MLC performance (in media and not in air) at various gantry angles
- Discover and track long-term effects and trends

The HexaMotion platform allowed for accurate phantom positioning and motion for a wide range of simple and realistic patient motions. The Delta4 Phantom+ was found to be very reliable, easy to setup and allowed for easy analysis of dose delivery accuracy. The combination of the two allowed for validation of the Radixact Synchrony<sup>®</sup>.

Lee Goddard Medical Physicist, DABR, Montefiore Medical Center, Bronx, NY

# Innovative and Efficient QA delta4family.com



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