**BEAMSCAN® Software Feature Overview**

**Setup and Configuration**
- Reduce setup time with BEAMSCAN® Wireless Auto Setup.
- Customize or create new task lists to automate beam data collection.
- Set or adjust optimal scanning speed and resolution.
- Access and effectively manage all detectors and treatment machines from one single location.
- Shift the effective point of measurement (EPOM) of your field detector according to the dosimetry protocol used.
- Shift zero point to measure half beam profiles of large fields.
- Create or customize dosimetry protocols.
- Change colors, fonts or styles as needed.

**Beam Data Acquisition**
- Select a TPS-specific task list for automatic beam data collection.
- Use the fast scanning mode to cut scan time.
- Choose from a variety of measurement programs, including TPR/TMR, output factors for any field size or geometry, wedge/tray factors, isodose distributions in different depths or absolute dose.
- Measure very large beam profiles without tank shift.
- Overlay a reference curve on a running measurement for online comparison.
- Check and adjust the beam in real-time.
- Check and adjust the water level for efficient evaporation control.
- Automatically calculate measurement depth of profiles based on nominal $d_{max}$ or % PDD value.
- Repeat a previous measurement at any time with one click.

**Data Processing**
- Smooth or average data to remove unwanted noise.
- Merge half beam profiles.
- Mirror profiles to correct coordinate system or asymmetry.
- Add profiles and PDDs for comparison.
- Shift profiles or PDDs along depth axis to correct measurement depths.
- Correct CAX of FFF profiles based on user-defined penumbra values.
- Convert measured ionization curves to absorbed dose to water curves based on international protocols or user-defined $R_{50}$ value.
- Normalize data to CAX, a specific point or absolute value.
- Create correction tables for depth- or dose-related corrections.

**Beam Data Analysis**
- Evaluate FFF beam profiles.
- Analyze beam data according to international or vendor-specific dosimetry protocols.
- Compare scans using 1D Gamma comparison or percentage deviation.
- Generate tables for TPR/TMR, OCR and output factors.
- Display, analyze and edit output factors in a 1D or 2D table.
- Select single scans for detailed analysis.
- Superimpose scans for a quick visual symmetry check.
- Calculate TPR/TMR from depth dose measurements.
- Determine absorbed dose to water according to IAEA TRS-398 or AAPM TG-51 (optional).
- Convert imported scanned or digital images for comparison or quantitative analysis (optional).

**Data Handling and Export**
- Format your beam data for easy import into your TPS.
- Export your analyzed beam data to Track-it for trending and reporting.
- Copy and paste selected data points or entire data tables to Excel, ASCII, etc.
- Customize your printouts with the Print Designer.
- Print to PDF for archiving and sharing.

**Track-it Trending and Reporting**
- Access your analyzed beam data from anywhere in your network, using a standard web browser.
- Track the current status of your QA tasks (open, skip, pass or fail).
- Automate reporting by using predefined or custom protocol templates, e.g., AAPM TG-142 Annual QA.
- Maintain logbooks, e.g., to document service and repair interventions.
- Update your QA reports automatically with AutoFill.
- Complete reports offline in the treatment room and synchronize when back online.
- Add attachments to protocol templates to provide guidance on test procedures.
- Schedule QA tasks on specific days of the week.
- View and manage all QA reports conveniently in the Track-it Dashboard.
- Show trends of selected data to track performance changes over time.

For more information on BEAMSCAN®, visit www.beamscan.de or contact us at info@ptw.de.

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