

Long term reputation in the medical industry.

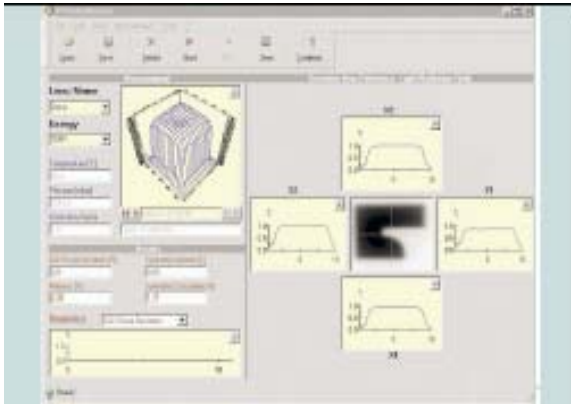
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LACO Inc.

can do it all!



Beam parameters of medical linear accelerators should be determined regularly, and their constancy by time should be verified and recorded (see IEC 60976¹). The measurement of the complete radiation field with a two-dimensional detector facilitates the required procedures considerably, and minimizes the time needed for setup, measurement and data analysis.

MultiCheck analyzes the data acquired with the PTW 2D-Array. The 2D-Array is positioned either on the patient couch or in a special gantry holding device, and a specific test field size is adjusted (22.4 x 22.4 cm² or 26 x 26cm², respectively). After the irradiation of the 2D-Array with approx. (0.5 ... 1) Gy MultiCheck displays the measured field in a 3D graphics presentation, and compares it with reference data stored for the actual linac and energy, presenting the difference matrix along with the numerical analysis results.

Measured data and analysis results are stored in ASCII files in a directory structure created by the user using the Windows Explorer. It is possible to browse a directory to investigate the stored data, or to check numerical analysis results as a function of time. Results can also be exported to spreadsheet programs for further investigation.

MultiCheck allows the definition of tolerance matrices and thresholds, facilitating the assessment of the actual results.

¹IEC 60976: "Medical electrical equipment - Medical electron accelerators - Functional performance characteristics"

MultiCheck Therapy QA Software

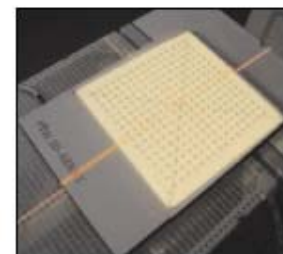
Software for constancy checks on medical linear accelerators with two-dimensional chamber arrays

Features

- * Checks flatness and symmetry in the complete irradiation plane according to IEC 60976¹
- * Checks constancy of central dose, leaf positions and wedge angles (dynamic or static wedges)
- * Checks coincidence between light field and radiation field
- * Allows export of analysis data into MS-Excel spreadsheets
- * Supports all versions of PTW 2D-Arrays

Specification

- * Type of product: Software for QA on medical linear accelerators
- * Application: Constancy tests of high-energy photon beams
- * Field Size: 22.4cm x 22.4cm (16 x 16 array)
- * Supported Hardware: *seven29* 2D-ARRAY
- * Accuracy of position checks: 1 mm
- * Reproducibility of dose measurement: better than 1%
- * System requirements: Microsoft® operating system on PC Software MatrixScan for data acquisition



The 2D-array set up on the treatment couch for QA Measurements