

# MEPHYSTO<sup>®</sup> *mc*<sup>2</sup> Software Medical Physics Control Center



## *Software for therapy beam data acquisition and data analysis in radiation therapy*

### Features

- ▶ Customizable Control Center for all dosimetry tasks in radiotherapy
- ▶ Fast beam data acquisition with integrated graphical TaskList
- ▶ Fast and accurate commissioning with batch conversion for all established TPS
- ▶ Supports online data analysis with linear array

The Medical Physics Control Center MEPHYSTO *mc*<sup>2</sup> is the most advanced, comprehensive and self explaining user interface for TBA control and data evaluation. Solutions of all important dosimetry tasks in radiotherapy are implemented in modules with optimized workflows. The Control Center is customizable and allows the adaptation to the available equipment. Additional software or documents can be integrated.

By means of intuitive graphics with two tabs for accelerator and measurement parameters, the user can quickly and easily start a measurement. Predefined measurement programs for PDDs, profiles, matrices for isodoses, and points are available. Axis definition for each defined radiation device with name and direction is possible.

Beam data collection for LINAC commissioning and TPS beam data collection can be done very fast and structured due to an implemented TaskList with multiple energies, applicators, wedges, blocks, field sizes, SSDs, depths and even multiple queues.

An optimized batch conversion module for each established TPS is available.

All established international protocols including the LINAC vendor specifications are available. User specific protocols can be generated. Curve comparison with percentage difference or 1D gamma analysis is possible.

Besides many other operations, ion depth curves can be converted into water absorbed energy dose curves according to all established international protocols. Matrix operations allow adding treatment fields. A table generator for OCR table creation and PDD conversion into TPR curves is available.

Data can be imported and exported with copy and paste function. A plot generator allows scaled and customizable printouts, html print preview is also available. Data can be stored anywhere in the network, with filenames in windows convention. New programming technique allows drag and drop functionality and customizable screens and colors.

Isodoses and rotational 3D Display in color wash or lines. Dual cross hairs, zoom and various normalization functions are available.

### Additional functions:

- ▶ Linear Array  
A module to adjust the beam with online analysis is included. Static fields as well as dynamic (IMRT) fields and wedges can be measured and analyzed.
- ▶ TPR  
Allows easy and precise TPR measurements with an optimized module with stepping mode and fast continuous mode.
- ▶ MLCSOft  
Includes MLCSOft software for calibration and QA to verify the radiological MLC positions for 48 leaves in one run.
- ▶ Absolute Dosimetry  
TanSoft for absolute dose measurement with TANDEM electrometer in accordance with IEC 60731 and UniSoft Edition 2000 is included.
- ▶ Film Analysis  
Full functionality of FilmSoft for film dosimetry with a GAFCHROMIC optimization for RGB scanners is included.
- ▶ Planning Module (plamo)  
Format and transfer TPS data according to their specification.

### Ordering Information

- S080045 MEPHYSTO *mc*<sup>2</sup> basic software
- S080045.001 Option LA48
- S080045.002 Option MLCSOft
- S080045.003 Option TPR
- S080045.004 Option Film Analysis
- S080045.005 Option Absolute Dosimetry
- S080045.006 Option Planning Module (plamo)  
The type of TPS has to be specified
- L981154 TBA hardware and software upgrade, connecting system M
- L981155 TBA hardware and software upgrade, connecting system BNT
- L981156 TBA hardware and software upgrade, connecting system TNC