



Radiation Time Calculation and Secondary Check Software for Independent 1D MU Verification





# **Company Profile**

We, the medtec- GmbH, located in the beautiful north west of Germany in an industrial aria called Ecopark, Emstek. In cooperation with our sister company & development partner "Curadia GmbH" and "GermanPhysics" we are a high performance team. Our main focus lies in development, design and in the close future manufacture of medical equipment, particularly radiotherapy facilities. Our corporate philosophy contains specifically the following points. Our complete philosophy can be found at http://medtec-gmbh.de/philosophie.htm







# **History**

 Various cancers can be treated either by x-ray therapy machine or high energy linear accelerator with individual dose prescription and treatment position.

**MU Calculation** 

- In the past, the radiation time & MU calculations were done manually by hand calculator using measured dosimetry data listed in tables.
- Human errors could not be neglected for using these tables.
- It was very time-consuming and accuracy and reliability of the calculations were hugely affected by human errors.

#### X-Ray Therapy

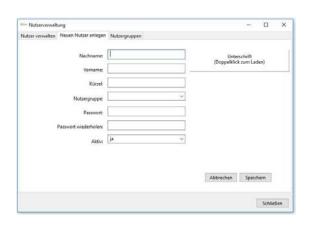
- In external radiation therapy, accurate dose calculation is extremely important in treating benign and malignant tumors.
- To overcome the human errors, using an independent secondary calculation and verification software for monitor unit/ radiation time is essential
- Nowadys, it is an vital part of the QA to check the MU with another independent software to prevent any potential errors before starting patient radiation.
- Cplan allow the user to perform calculation for both radiation time for kilo voltage X-ray therapy machines and MU for external high energy photon. It is also a suitable tool for patient data documentation.

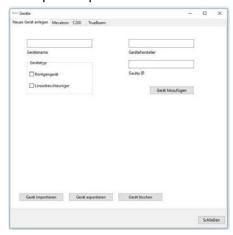




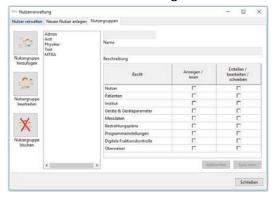
# **Cplan Key Features**

- Dual modality calculation software for external high energy photon and kilovoltage X-ray therapy
- Secondary monitor unit / radiation time software for independent patient plan verification





- Multiple languages
- Unlimited treatment units in multiple institutions/departments
- Easy to setup and commissioning
- Suitable for patient protocol documentation
- Possibility to add pictures of patients and treatment positions
- Password controlled user login with individual access rights





- Possibility to access from several workstations
- Archive of created plans and basic statistical analysis
- Export therapy plan for exposure on X-ray therapy machine C200







#### **Worklist Import:**

- Dicom Worklist
- MPPS

### Plan Export:

Dicom SR

### **Workstations**

- The software Cplan is available in two variants.
- On the one hand as a pure software product for the planning of irradiations and on the other hand with an interface to an X-ray depth therapy device. This interface was named "C200 module". This results in the following two products:
  - 1) Software Cplan Workstation and C200 module
  - 2) Software Cplan Workstation without C200 module

### **DIN Standards**

Our software is marked as a medical device. By developing we had to be met following standards:

- DIN EN 62304
- DIN EN ISO 13485
- DIN EN ISO 14971
- DIN EN 60601-1-6
- DIN EN 62366



For further information about our Cplan or our companies do not hesitate to contact us.

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