

Code of practice: Create a verification plan for OCTAVIUS Detector 729 in Oncentra Masterplan TMS

Oncentra Master Plan TMS

There is no Verification Option in Oncentra Master Plan. Therefore each patient plan has to be exported onto the desired verification phantom setup.

In case of a field-by-field verification on plan has to be re-calculated on the phantom for each gantry direction. (See Fig.1)

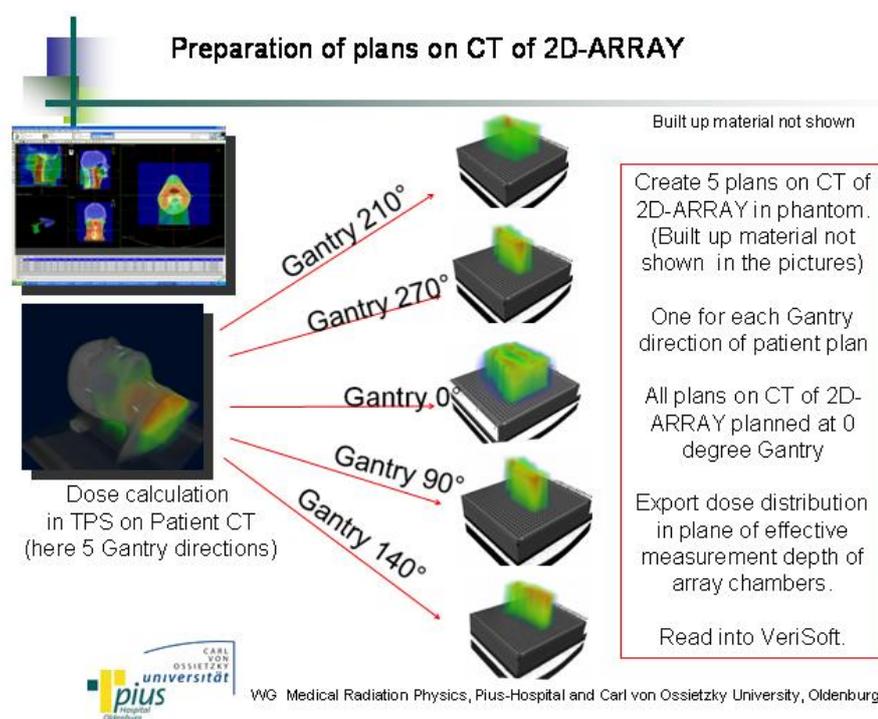


Fig. 1: Plan preparation for field-by-field verification

In the following the procedure for the field-by-field method will be described in detail. It is useful to use the same verification phantom for each IMRT plan to be verified and store them under different case titles.

Step 1: Import of the Patient Data onto the verification phantom:

The plan must be exported from the patient and re-imported on the phantom set-up. Usually the isocenter of the plan must be shifted towards its supposed position on the 2D-ARRAY (e.g. effective plane of measurement or surface). This position should correspond to the one used during the measurement with the 2D-ARRAY. (Hint: It is useful to define an "IsoPoint" at the corresponding position in the CT of the phantom).

Step 2: To assure an adequate resolution of the dose grid, set the calculation matrix to at least 2mm in each direction.

Step 3: Create a separate verification plan for each gantry angle.

You should copy the plan obtained in step 1 and create a separate plan for each gantry direction. After deleting the beams not used in this sub-plan set the gantry to 0 degree, so that the central beam is perpendicular to the surface of the 2D-ARRAY. Hint: if you do Step 3 before Step 2 you need to set the calculation matrix for each plan separately

Step 4: Calculate the dose distribution for each verification plan

Step 5: Open the Export Module. Important: If you do not have a designated export folder you can find the prepared DICOM data usually under C:\OTP_DATA\DICOM\ExportTemp

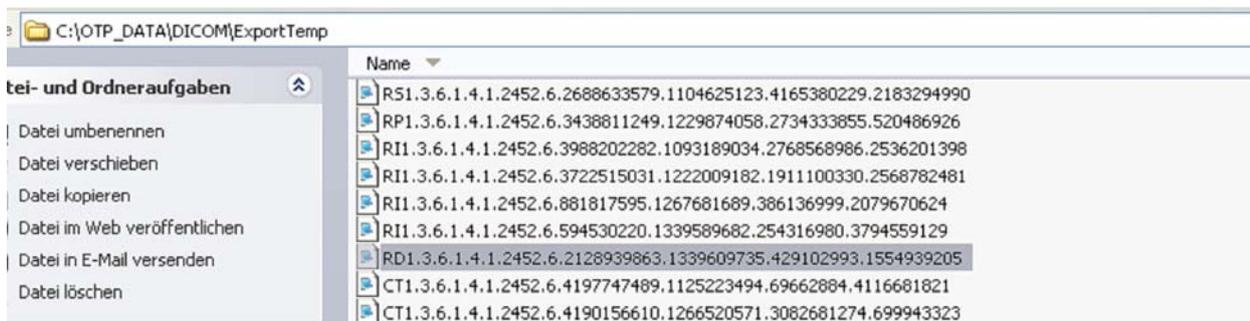


Fig. 2: Data export

Chose the RD File and copy it to the folder containing the VeriSoft patient measurements.

Step 6: You are now able to open the dose distribution in VeriSoft

Step 7: The effective point of measurement lies 7.5 mm beyond the surface of the 2D-ARRAY. The plane you choose in VeriSoft must correspond to this position. However a problem may occur when the dose grid in MasterPlan is larger than the physical phantom dimension. (Fig 2). To verify the depth inside the treatment planning system, the user may visualize the dose grid in the Beam Modelling Module. The evaluation depth can be obtained by adding the length of the dose grid "in air" to the depth in the phantom.

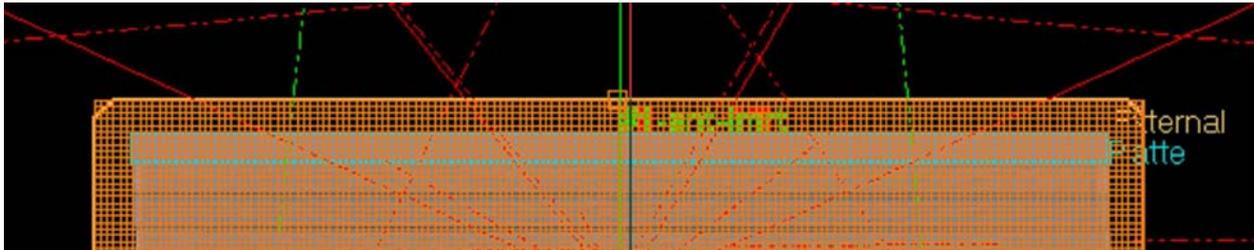


Fig.3: Example for a situation in which the dose grid is larger than the phantom dimension.

Because VeriSoft measures the depth from the first point of the dose grid, the depth in which the comparison will be made has to be adjusted.

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