IMRT WORKSHOP

AK - IMRT
29 märz 2007
Deutsches Krebs Forschungszentrum

Sven-Olof Linder

ONCOLOG MEDICAL

Presentation

- Company
- QAMLog
- ?

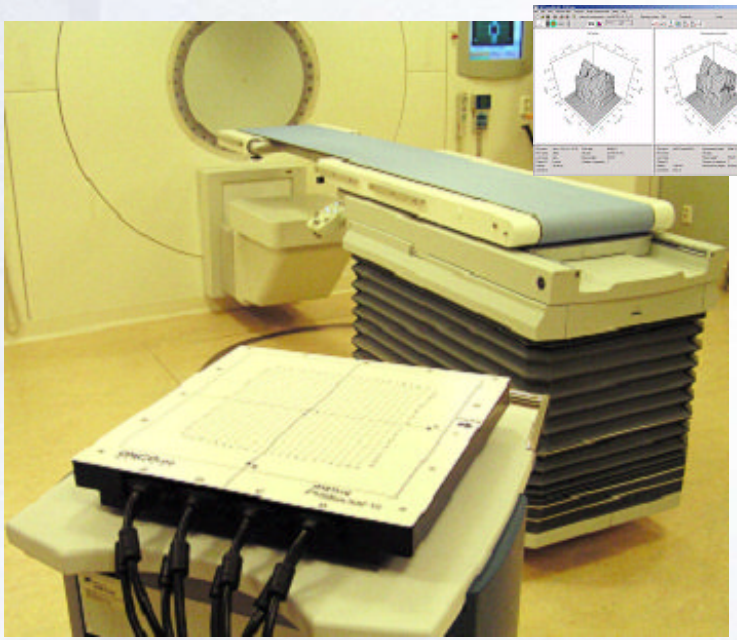
ONCOlog Medical

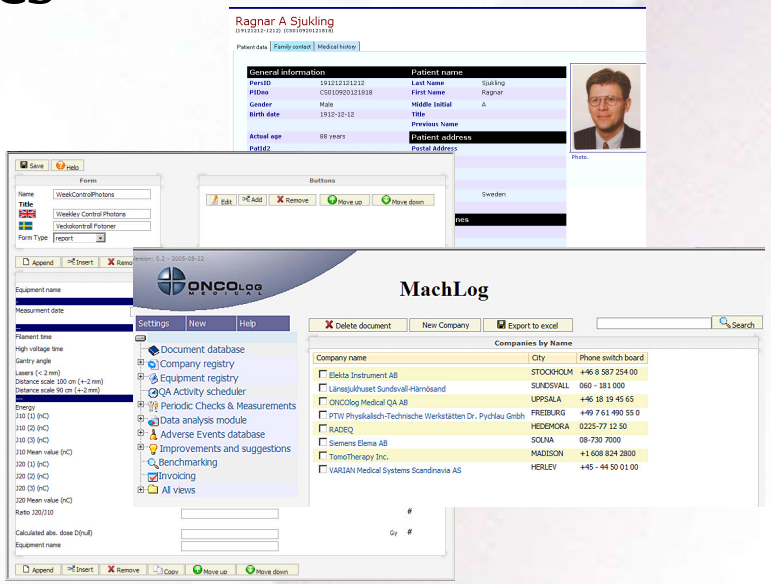
Uppsala Sweden

Provides Products & Services

for

Quality Assurance in Radiation Oncology & Patient Logistics





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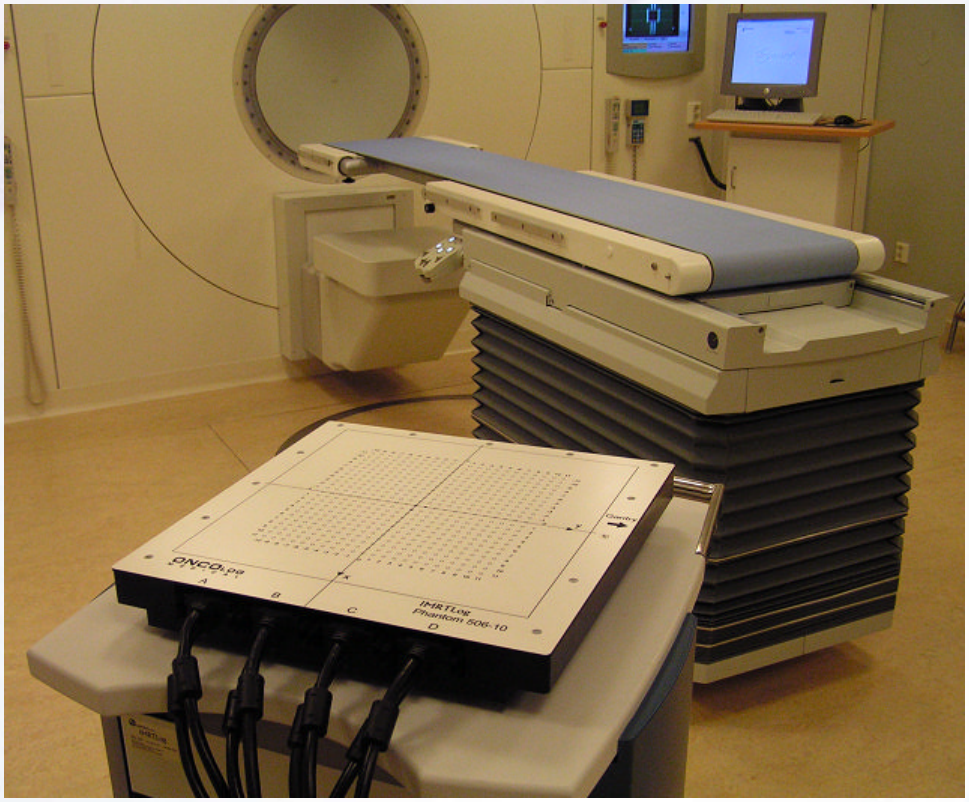


Detectors:

Semiconductor detectors: 2D array.

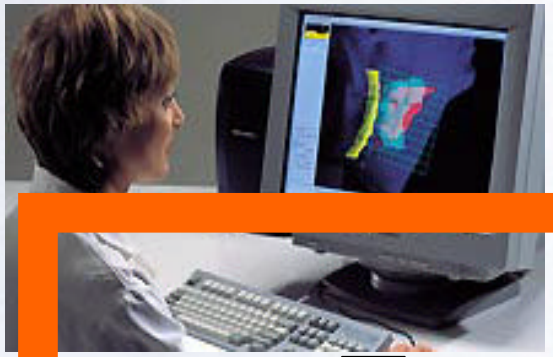
(pre-irradiation 25 kGy, sensitivity change <0.2% per kGy).

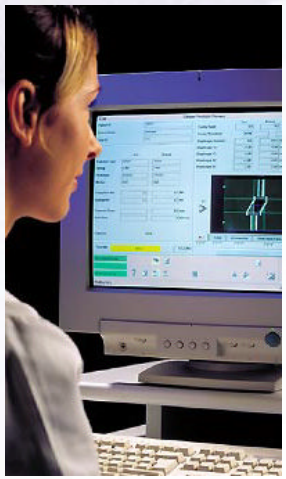
Workflow

How to perform IMRT QA ?

QA-plan treatment data

TPS



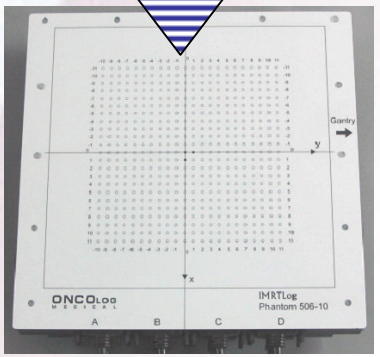


MLC- and dose data

R&V system

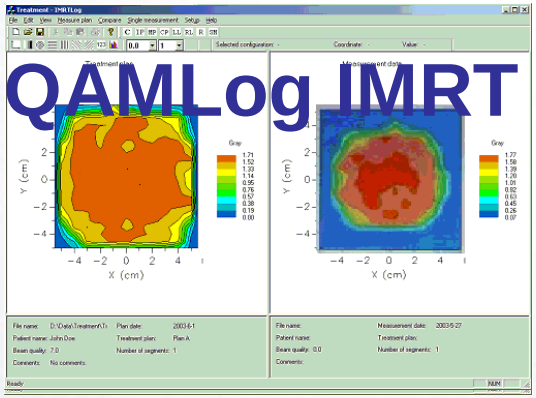
Accelerator and MLC

Beam



Measured dose data

QAMLog IMRT phantom



Dose comparison

QA-plan dose data

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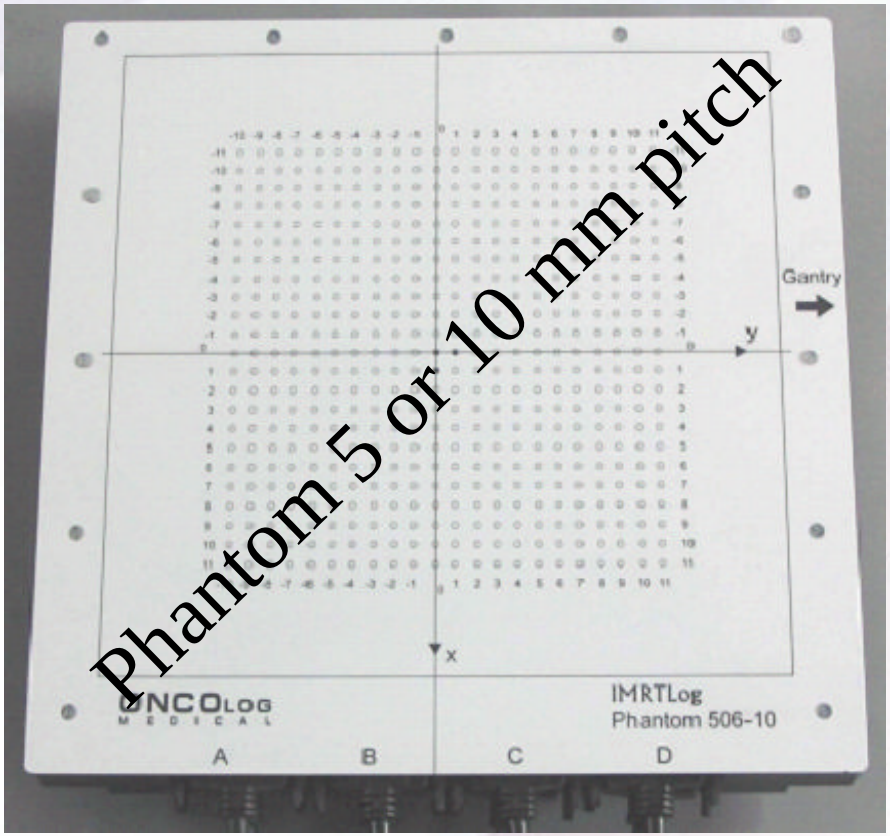
Trolley with electronics



Phantom 5 or 10 mm pitch

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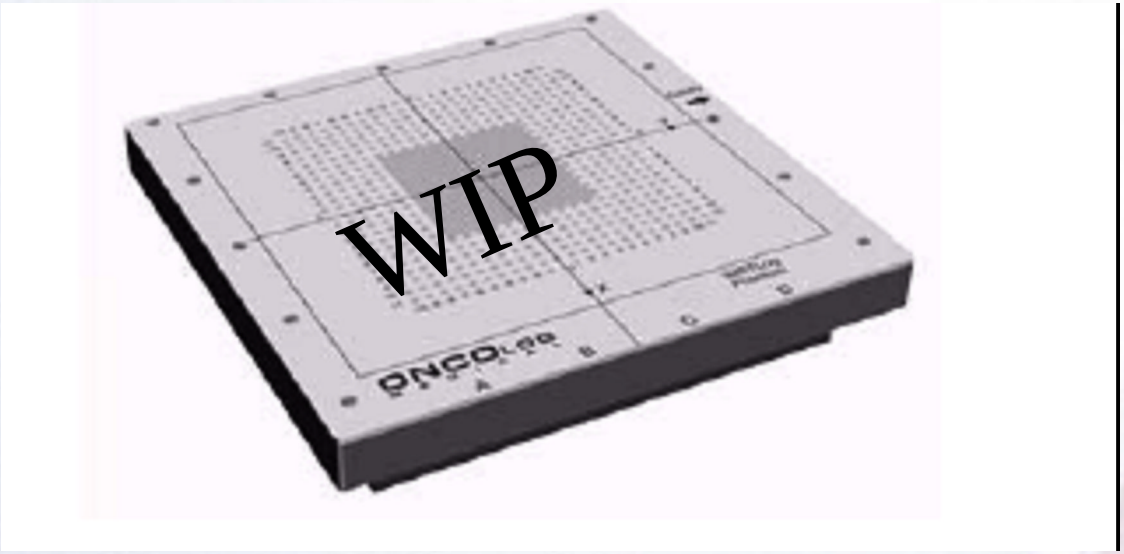
New Phantom:

10 mm pitch

5 mm pitch in central area



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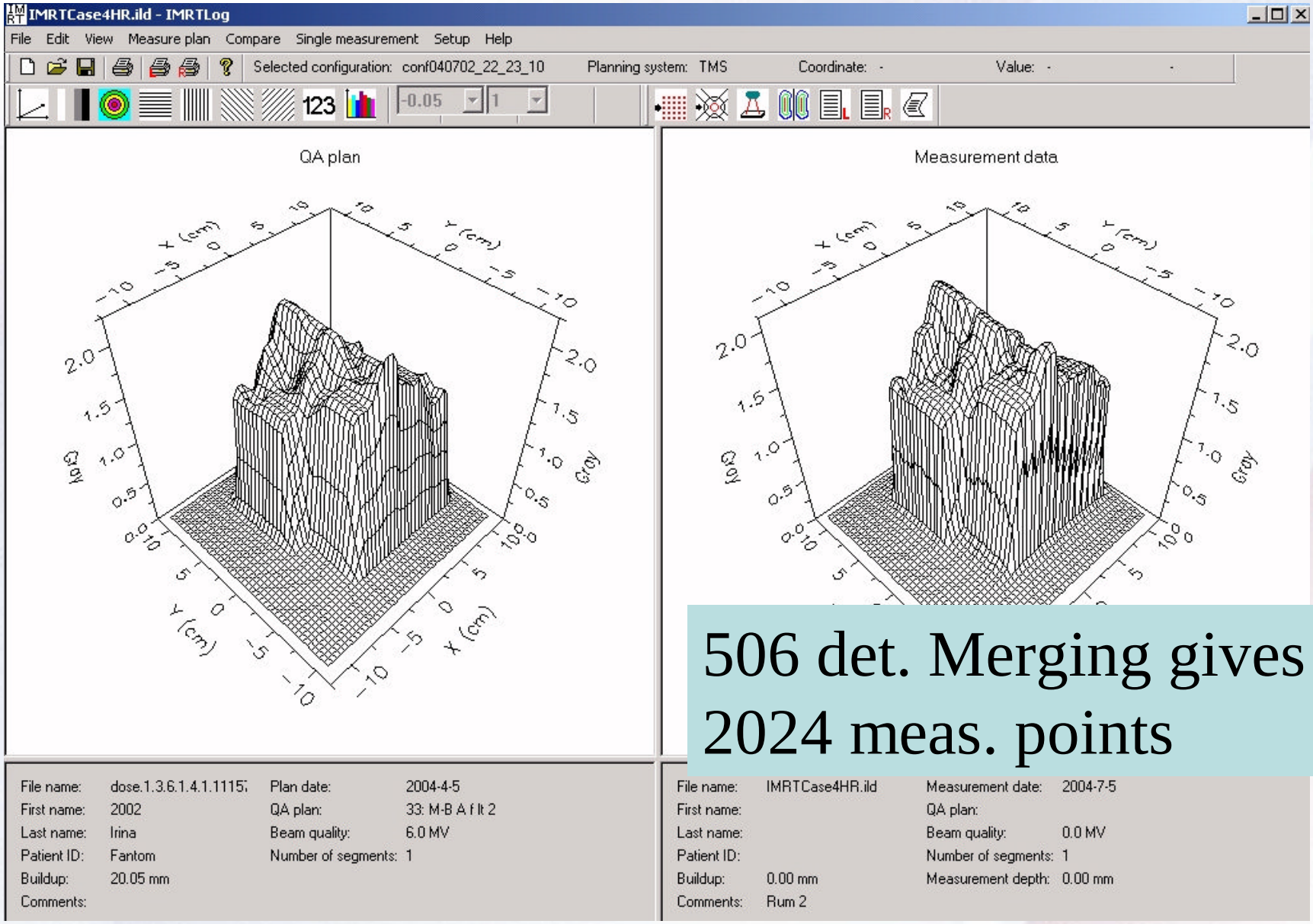

506 det. Merging gives 2024 meas. points

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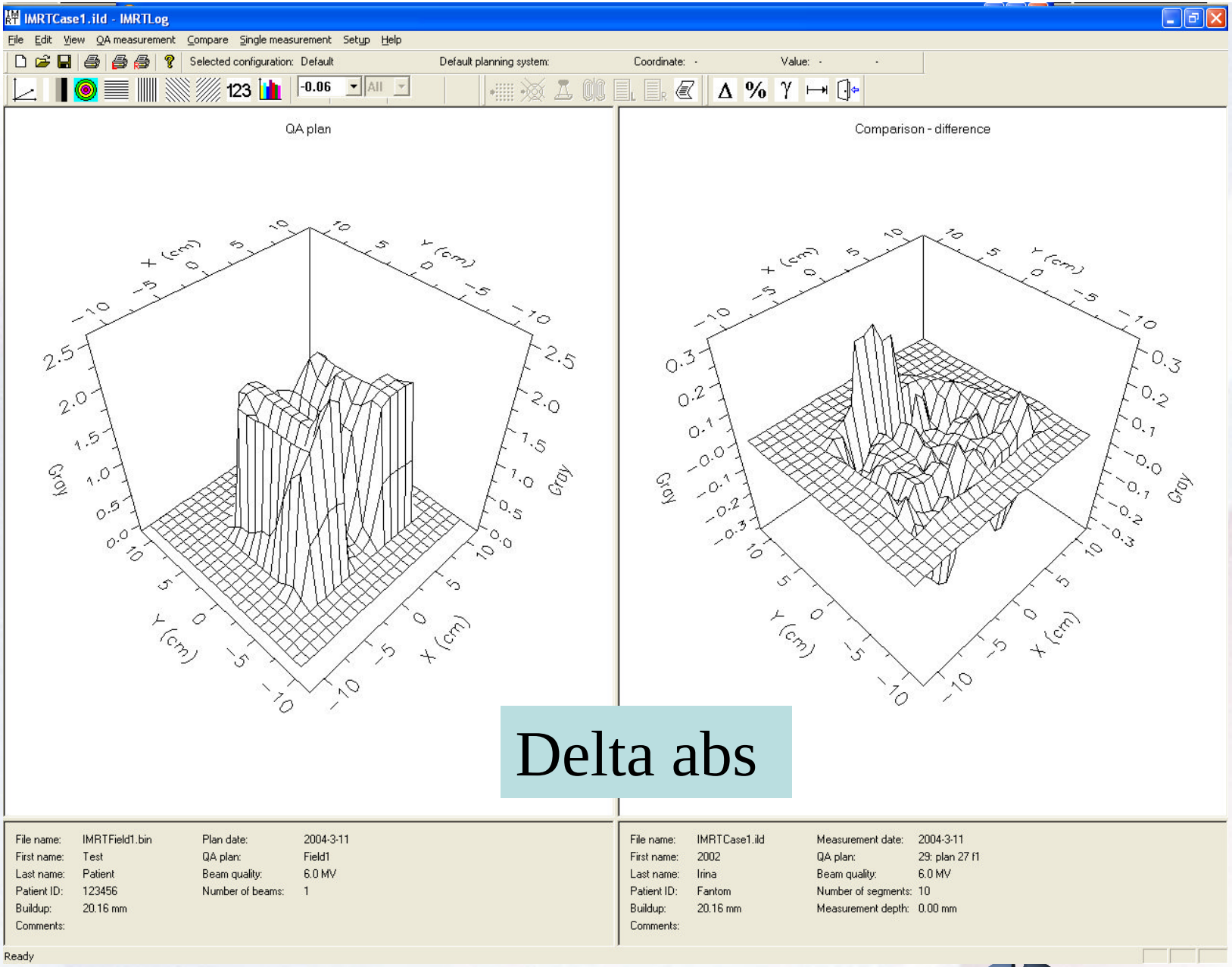

Delta abs

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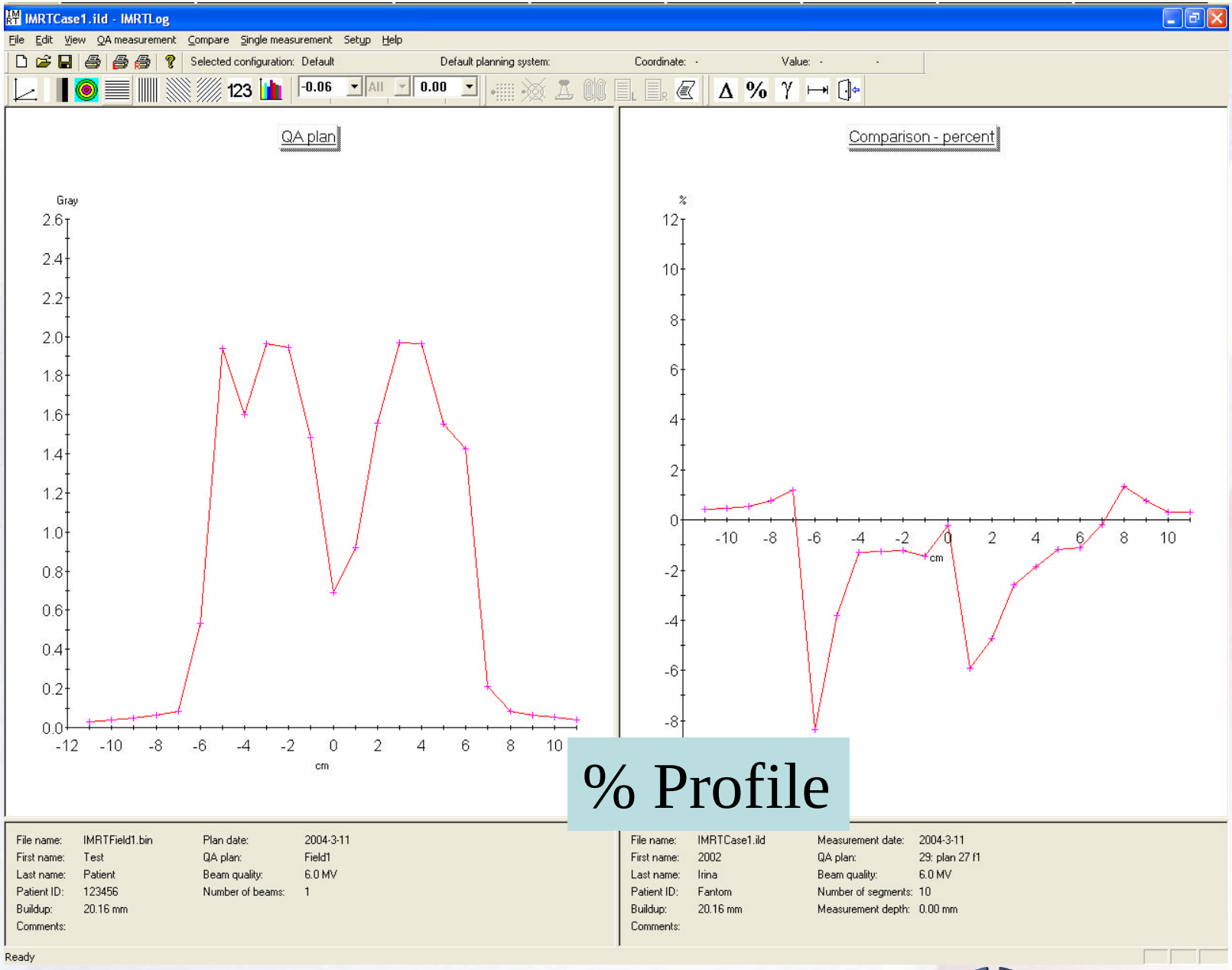

% Profile

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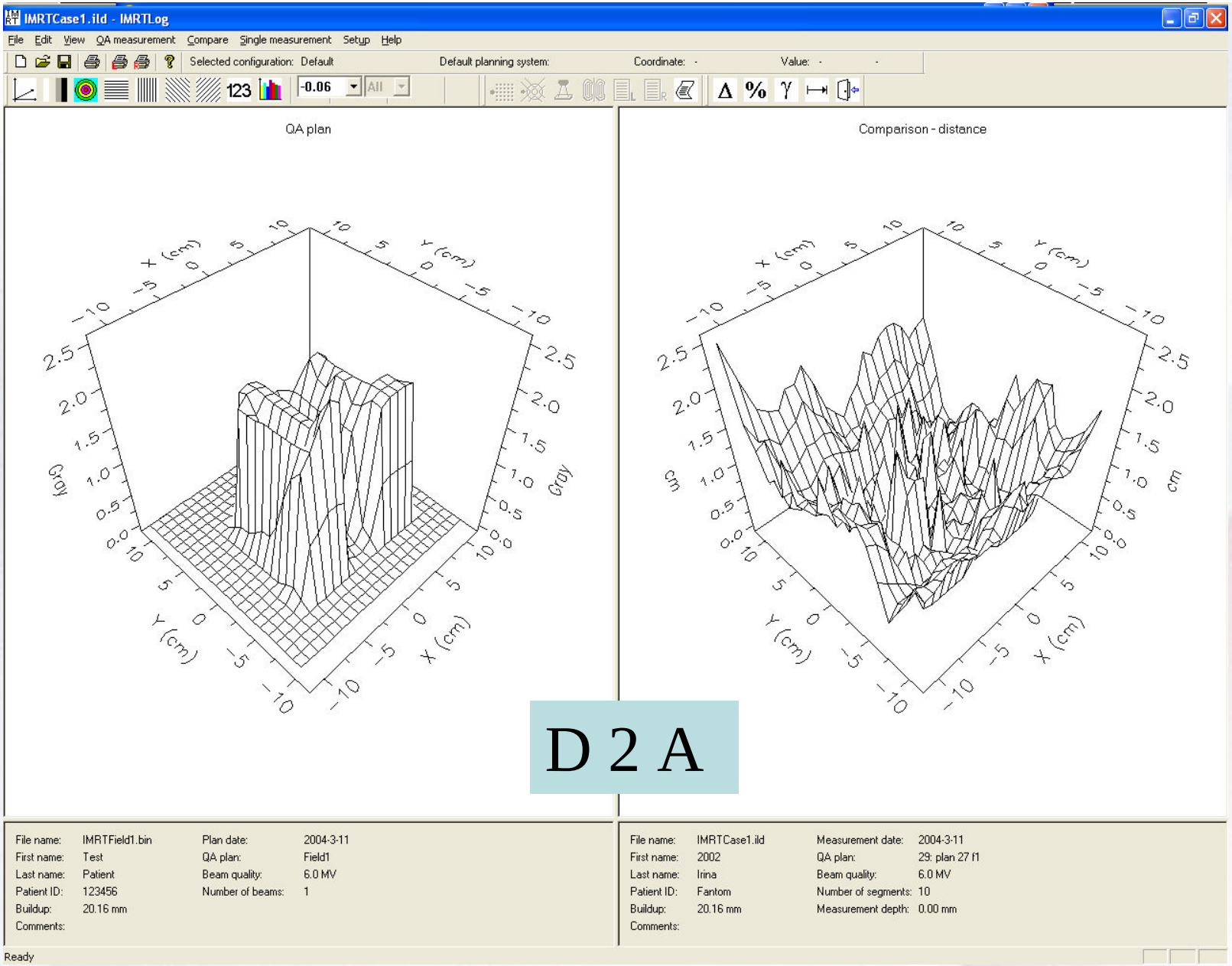

D 2 A

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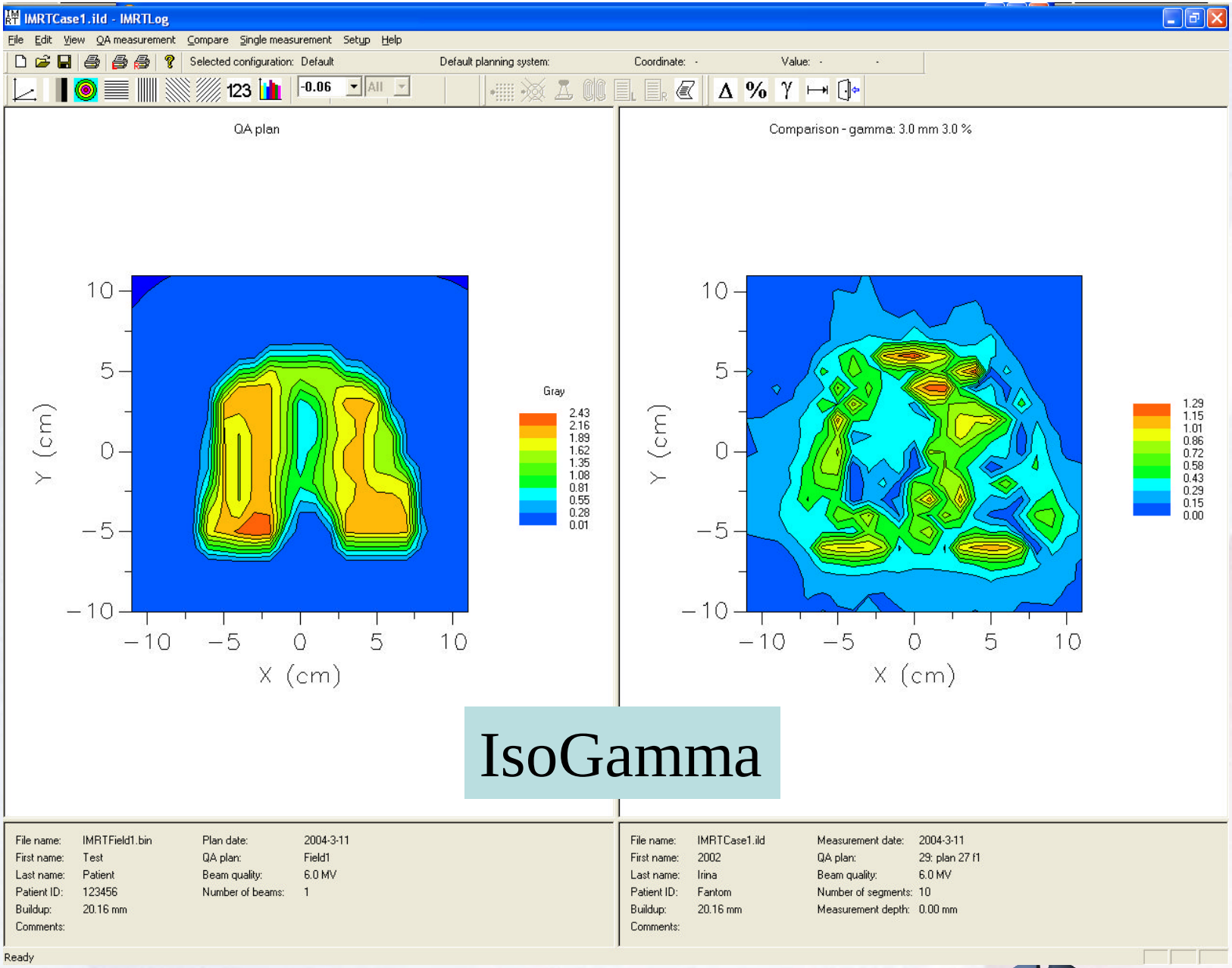

IsoGamma

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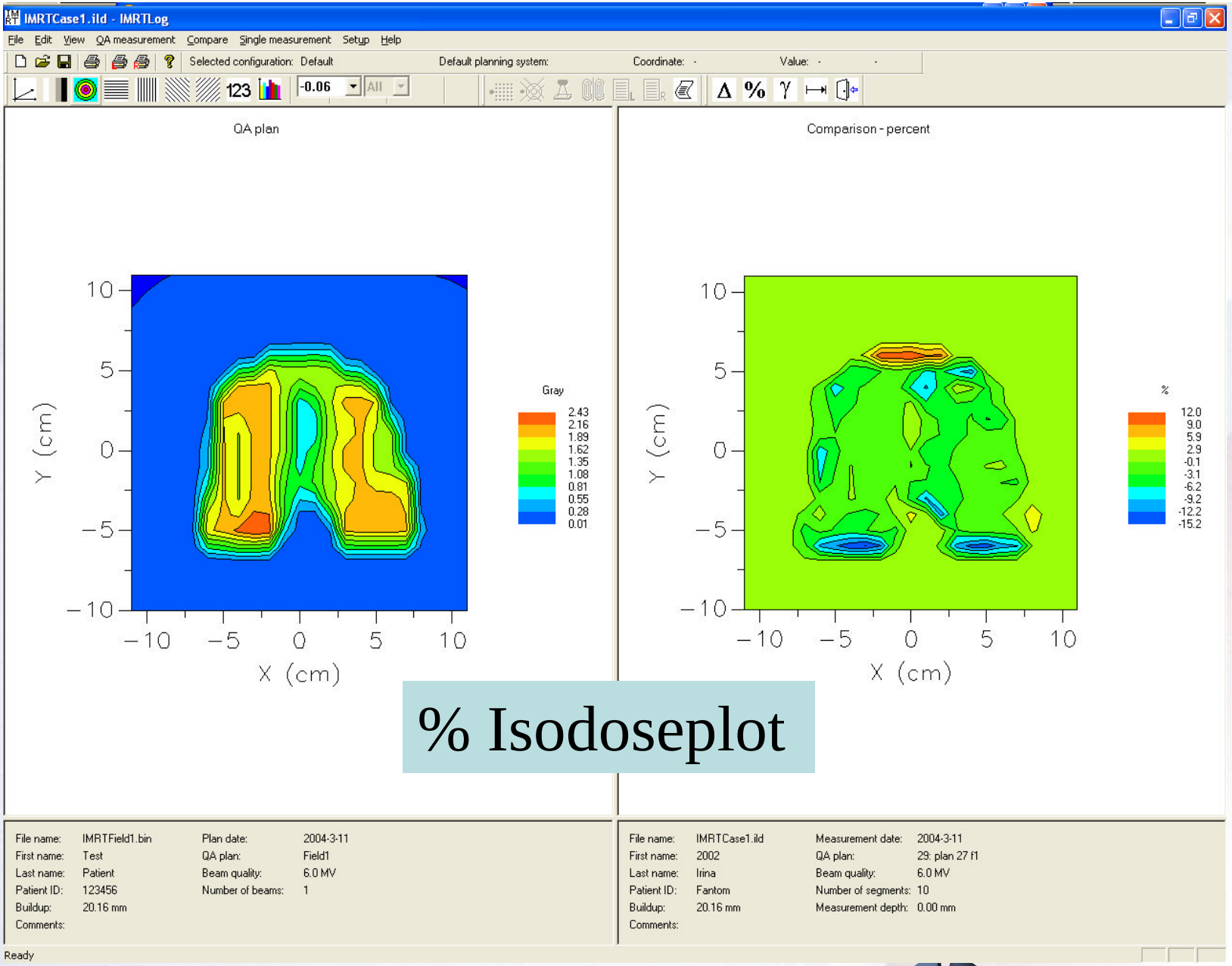

% Isodoseplot

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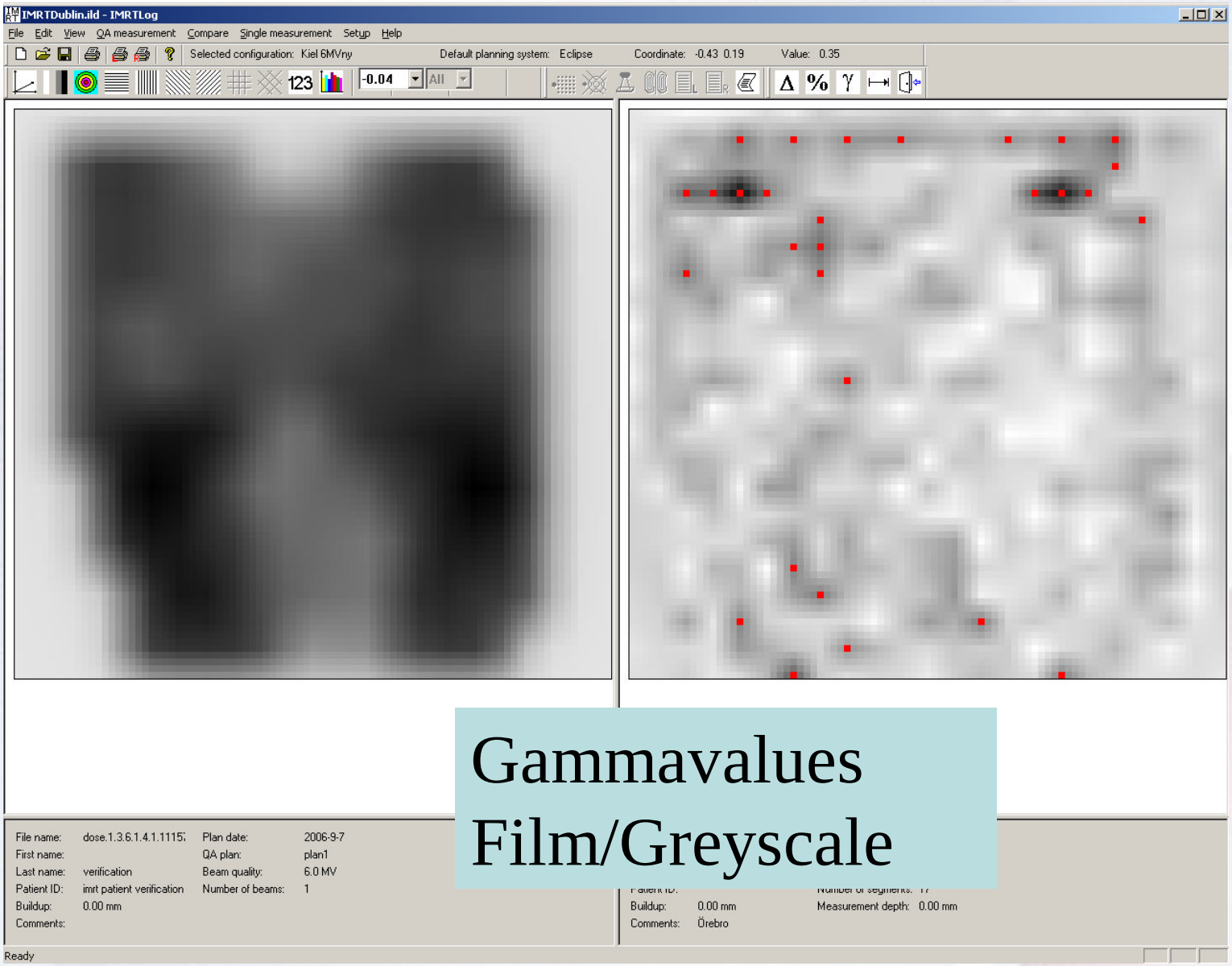

Gammavalues
Film/Greyscale

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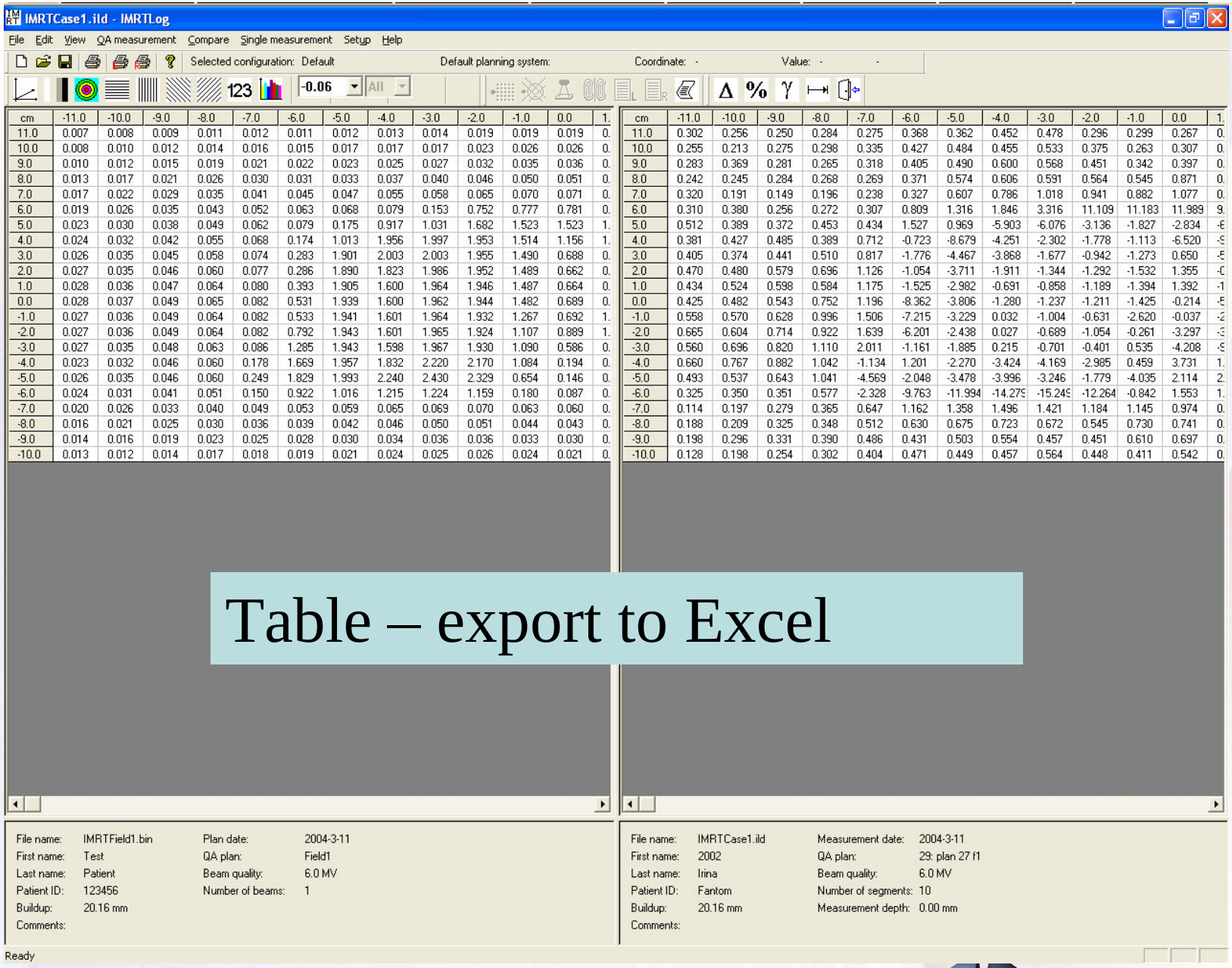

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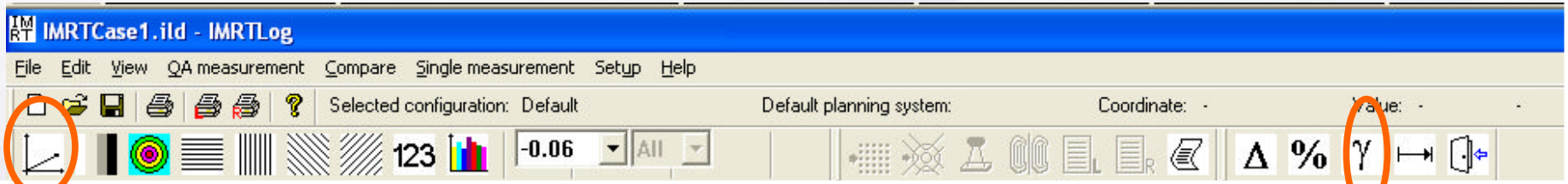

3D

Gamma

User friendly GUI

Display of profiles, 3D etc.

Calculation of D2A, Gamma etc

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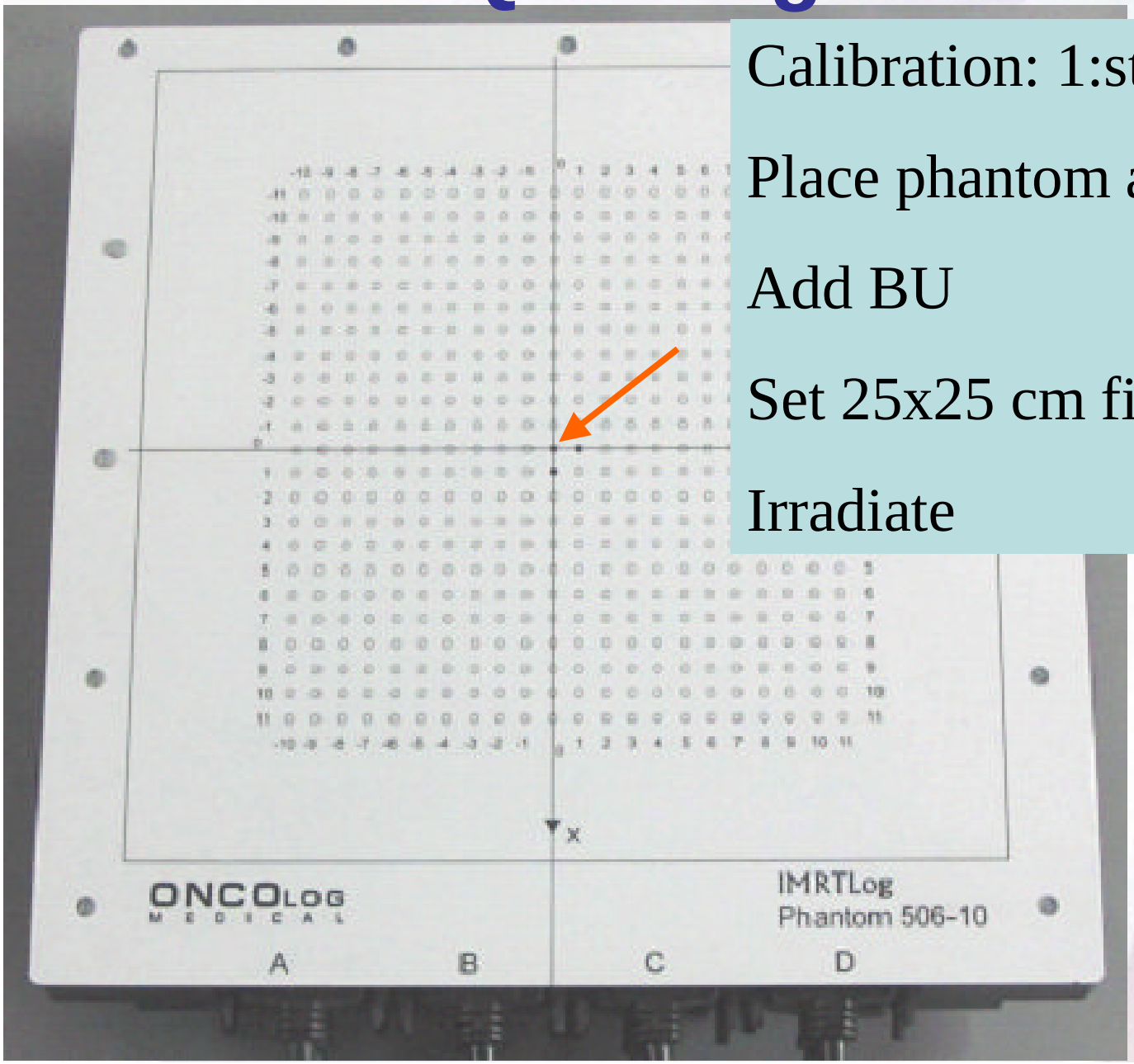

Calibration: 1:st step

Place phantom at centre

Add BU

Set 25x25 cm fieldsize

Irradiate

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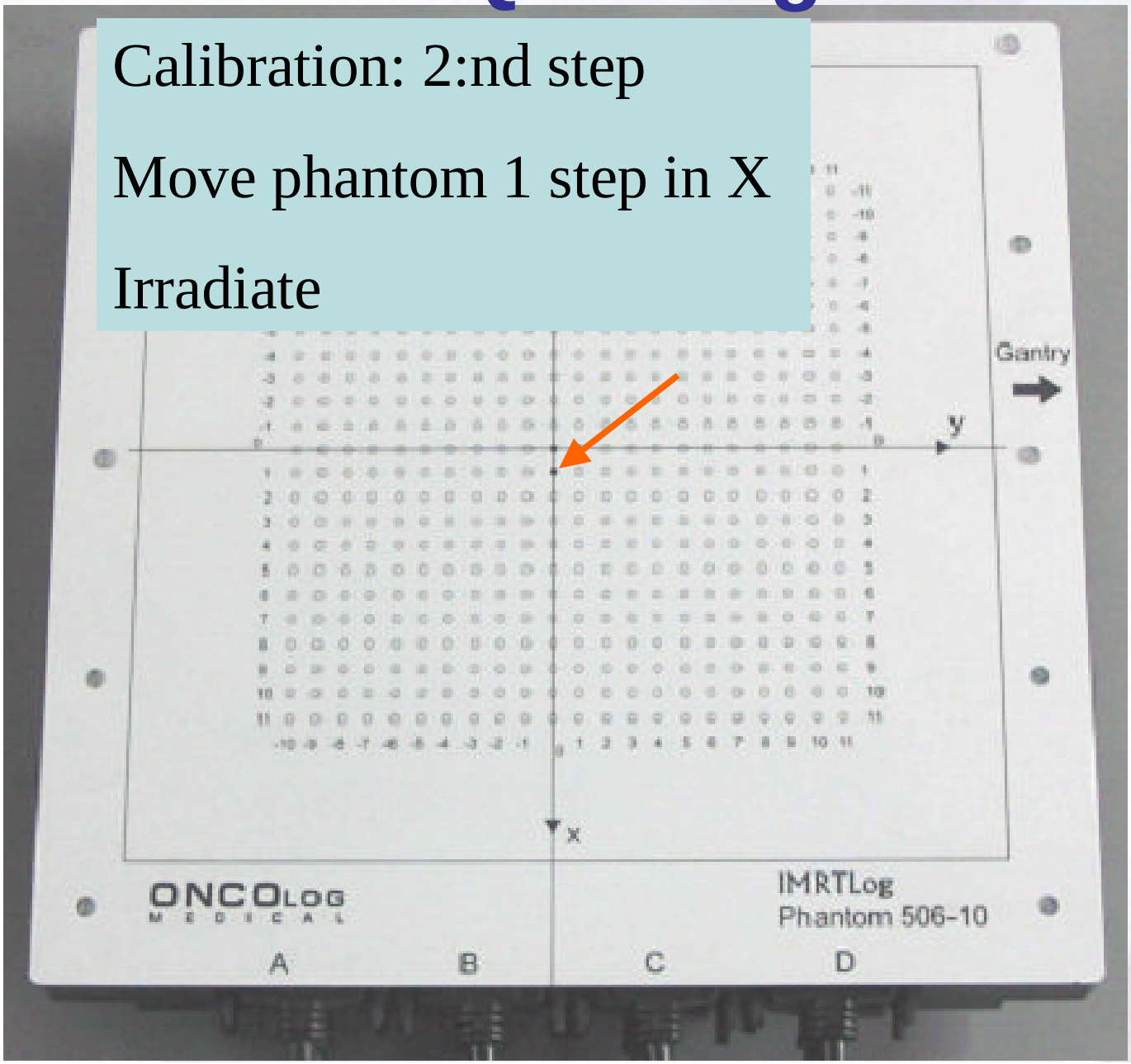
Calibration: 2:nd step

Move phantom 1 step in X

Irradiate



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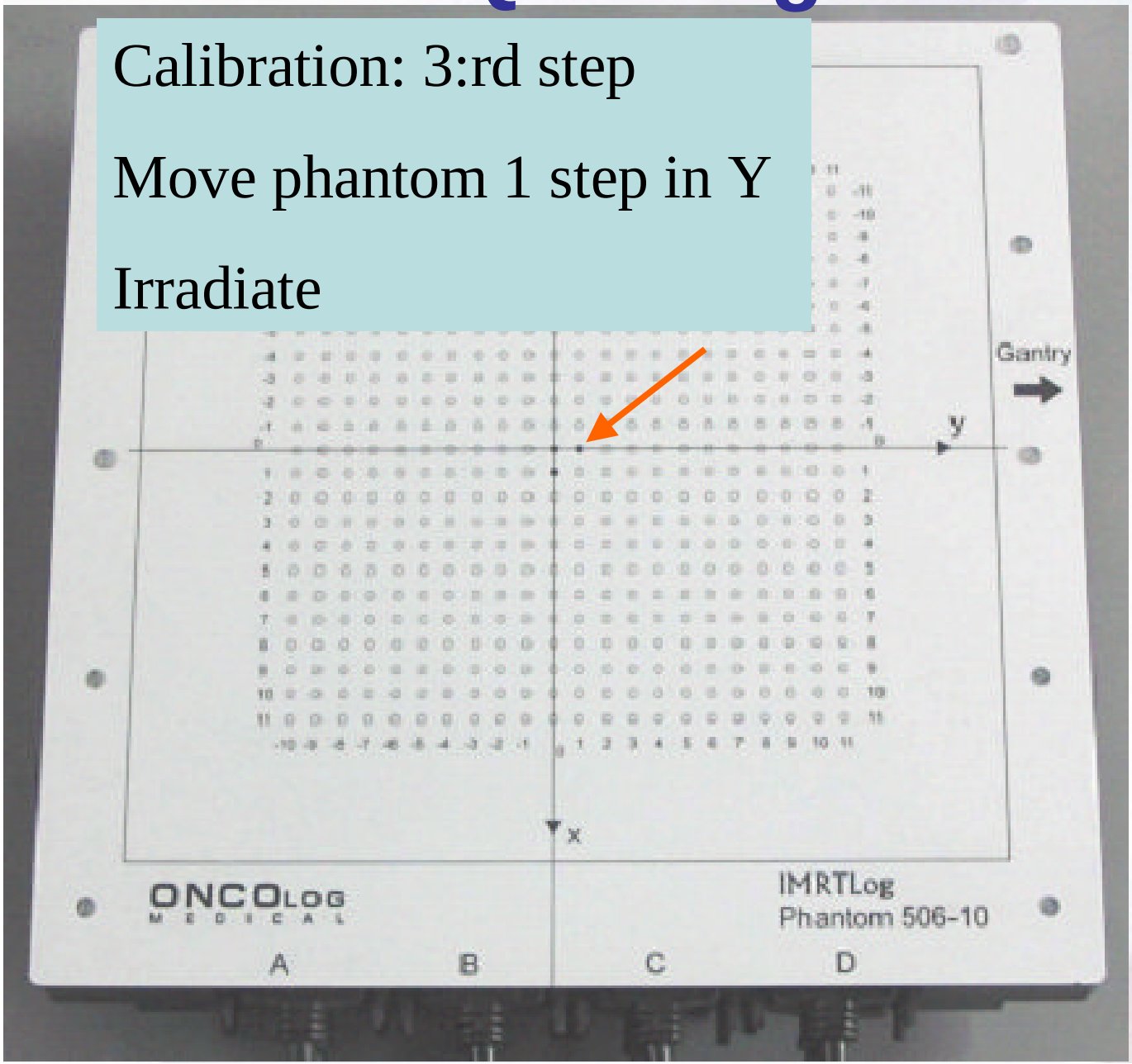
Calibration: 3:rd step

Move phantom 1 step in Y

Irradiate



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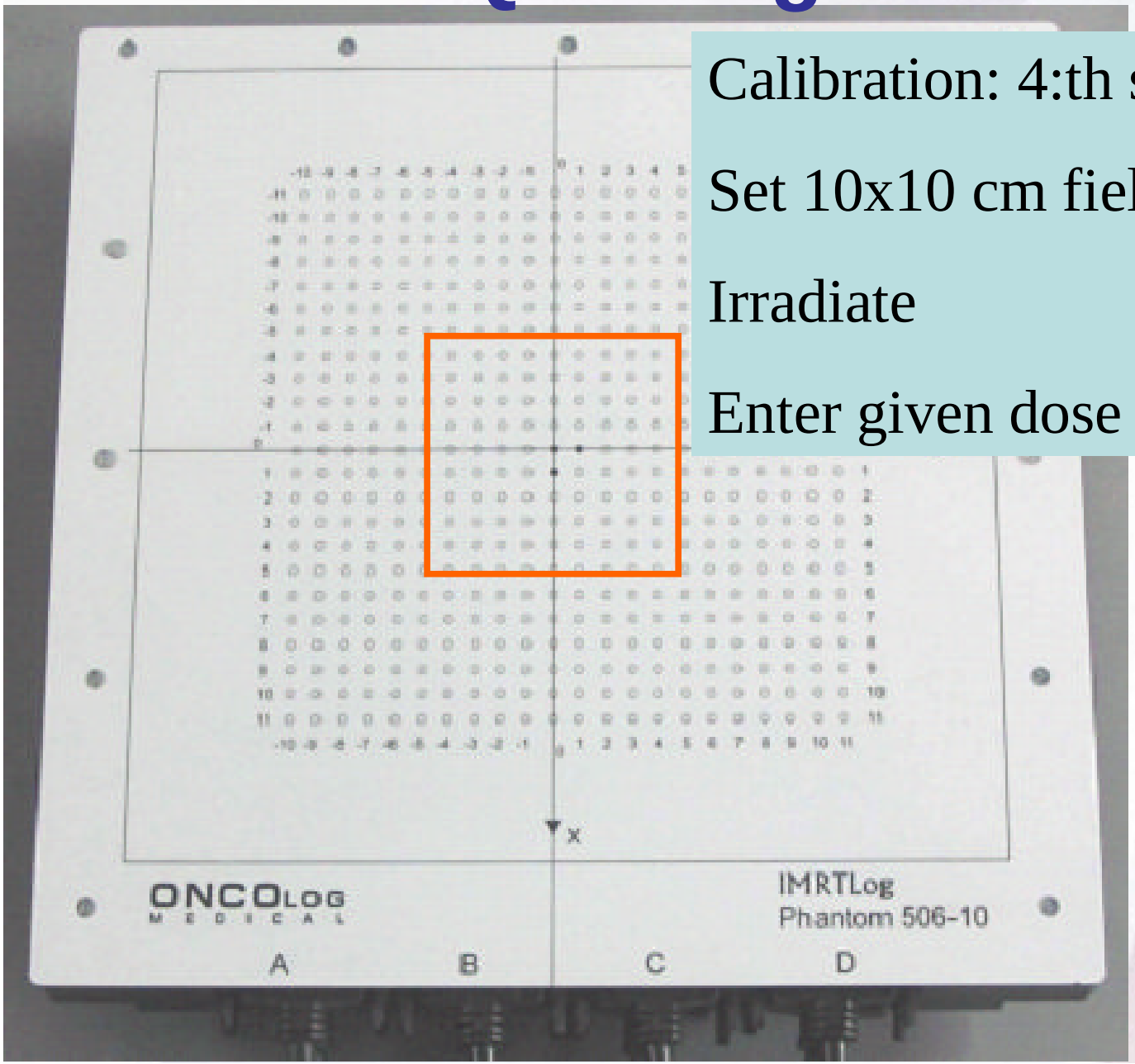

Calibration: 4:th step

Set 10x10 cm field

Irradiate

Enter given dose – Done!

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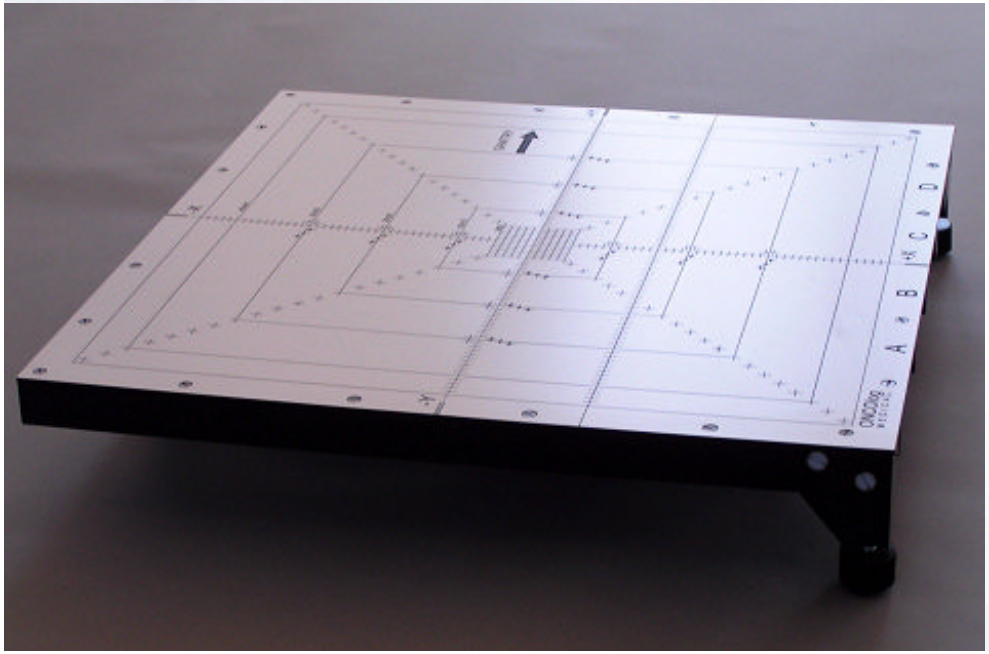
QAMLog is more :

- A Roadmap
- Integrated Concept
- Low total purchase cost
- High spatial resolution
- Fast Gamma



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Vielen Dank für Ihre Aufmerksamkeit

Haben Sie Fragen?