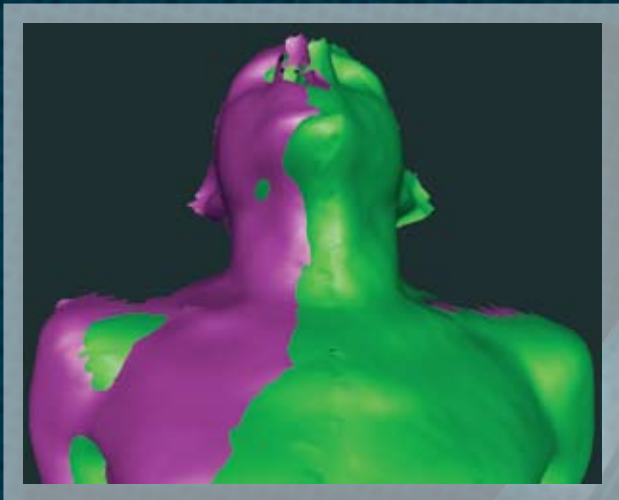
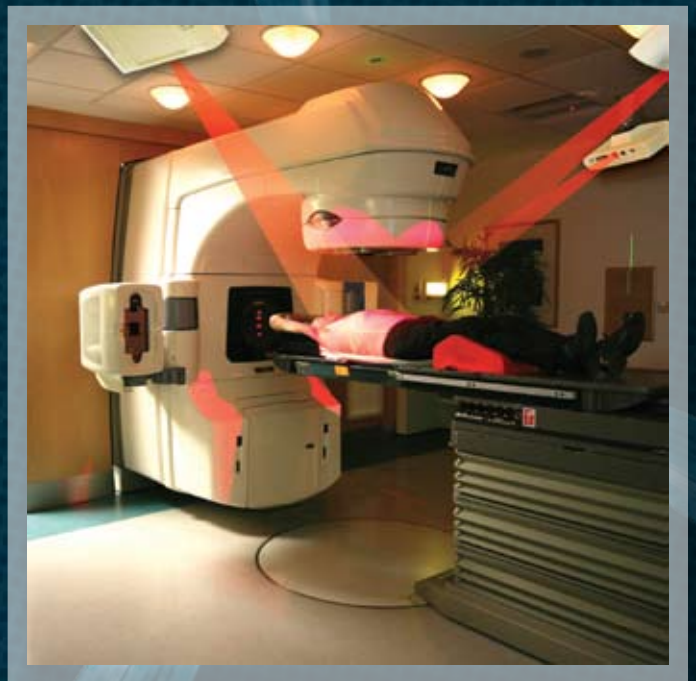


More than just Motion Management



visionrt

*Knowing where your patient is
makes all the difference.*

alignrt®

Patient Setup and Surveillance



Dynamic, non-invasive, 3D surface imaging provides real time feedback during the patient setup process

Couch position corrections can be applied automatically¹



Continuous surveillance during radiation delivery

Automated beam-hold¹ if patient motion exceeds user defined tolerance



Patient data can be recorded for post treatment analysis and audit

¹ Full details of supported interfaces are provided in third party interface statement.

gatect®

Real Time Tracking For 4D CT Reconstruction



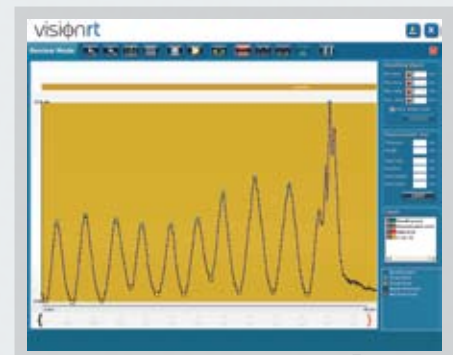
User selects points to track respiratory and patient motion

No markers, spirometer or any form of patient contact device are required



Surface imaging acquisition is synchronized with CT¹ data collection

Tracked data may be reviewed offline. Editing tools allow the user to correct any phase tags or the labelling of valid breathing data



The edited respiratory data is exported to the 4D workstation, thereby enabling the subsequent reconstruction of 4D CT data

gater[®]

Markerless Respiratory Gating

Acquire reference surface and select optimal tracking points. To ensure reproducibility, these can be imported from a previously captured reference surface



As determined by the 4D treatment plan, suitable gating and patient motion thresholds are set. GateRT[®] supports both amplitude and phase based gating protocols

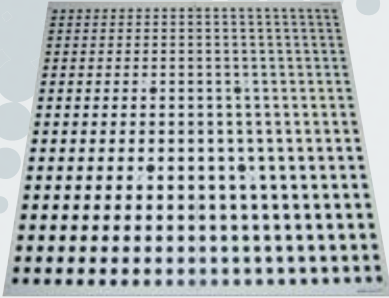
Start tracking. The beam is gated¹ according to user defined gating thresholds



GateRT[®] also monitors patient movement and abnormal breathing. If either of these exceeds a pre-set tolerance, the beam is held automatically

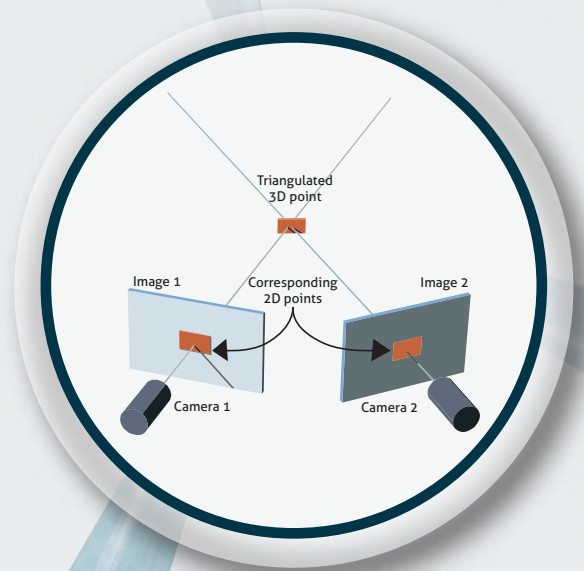
core technology

Vision RT's imaging technology employs stereo vision techniques, by viewing an object through two cameras from different perspectives



Camera calibration is performed to determine the optical properties as well as the positions and orientations of each data camera with respect to iso-centre

Through the process of triangulation, the actual 3D position, with respect to iso-centre, of any set of corresponding points between two cameras may be derived



To compute the 3D surface model, a pseudo-random optical pattern is projected onto the patient. All visible corresponding points are determined automatically and the 3D surface model is computed

High speed surface matching techniques calculate motion in six degrees of freedom at several frames per second



*Knowing where your patient is
makes all the difference.*

visionrt

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