

VISTA™

Optical CT Scanner

KEY FEATURES

- Acquisition, reconstruction, and display of dose distributions in less than an hour
- Compatible with Windows XP and Vista operating systems
- Simple on-screen controls and straightforward workflow



CONE BEAM OPTICAL SCANNER

The VISTA™ scanners reconstruct a 3D map of optical attenuation coefficients within an object suspended in the scanner's region of interest. This is done by capturing a series of 2D optical projections through the region of interest while the object is being rotated and then using Feldkamp filtered back projection to reconstruct the 3D map. The base system is designed to work with radiochromic dosimeters such as Fricke gels which have an absorption peak at 590 nm. Different wavelengths are available on request for different dosimeters and for different applications.



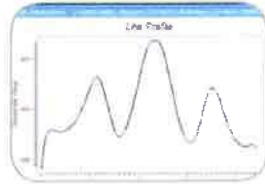
VISTA is capable of scanning objects up to 15 cm diameter by 12 cm long. Objects are suspended in a liquid filled aquarium to provide index of refraction matching. Software is included for scanning, reconstruction and display. Data is fully accessible for research applications.

3D DOSIMETRY

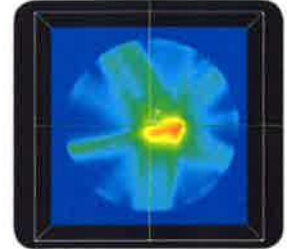
There is consensus within the radiotherapy QA community that 3D dosimetry is required.

"Comprehensive verification of the intricate dose distributions associated with advanced radiation

treatments is now an immediate and substantial problem. ...the rapid advances in the technology to deliver radiation treatments have not been paralleled by corresponding advances in the ability to verify these treatments." Oldham et. al. (1)



Profile of reconstructed bulls-eye of a unique TomoTherapy[®] dose distribution for evaluation



Surface and color rendering of a multi-beam dose distribution.

™ in development

RESEARCH



Clinically viable
3D dosimeter
research solution



ORDERING INFORMATION

- 100-2015 Vista 15 - Package Includes:
- Scanner
 - Software
 - User's Guide
 - Aquarium 15cm
 - Wavelength (590 nm and 633 nm)
 - Rotary Stage with clamp for 15 cm jars
 - 5 Polyethylene terephthalate jars (15 cm)

Accessories

- 500-1015 Additional Aquarium 15 cm
- 500-1060 Additional R15-15 cm Rotary Stage
- 500-1062 R15-10 cm Rotary Stage
- 500-1064 R15-8 cm Rotary Stage
- 500-1280 8 cm PET Jar with Lid box of 32
- 500-1282 10 cm PET Jar with Lid box of 60
- 500-1284 15 cm PET Jar with Lid box of 18

MINIMUM TECHNICAL REQUIREMENTS

- 2 GHz Pentium 4, Windows XP, 2GB RAM, 16 MB Video card with Texture mapping and Open GL support, firewire (6 pin IEEE 1394) and serial port (RS 232)

SPECIFICATIONS

- Enclosure – 35 cm wide x 110 cm long x 35 cm high
- Aquarium – glass/acrylic
- Region of interest dimensions – up to 15 cm diameter, 12 cm long
- Electrical – 24V DC; 120 – 240 V AC switching power supply provided

CONTACT INFORMATION

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