Best® nomos®

healthcare for everyone

Best® TPS™

TREATMENT PLANNING SYSTEM

Innovations in Brachytherapy

Best® TPS™, formerly STRATA Suite, has become the planning system of choice for enhanced patient outcomes. An efficient, user-friendly system, Best® TPS™ has a modern graphical interface coupled with the power and ease of a Microsoft Windows PC Operating System. Best® TPS™ offers unsurpassed quality, flexibility and several unique capabilities. Best® TPS™ offers an array of tools that not only enhance control and quality of planning but also the speed and convenience of plan evaluation and follow up.

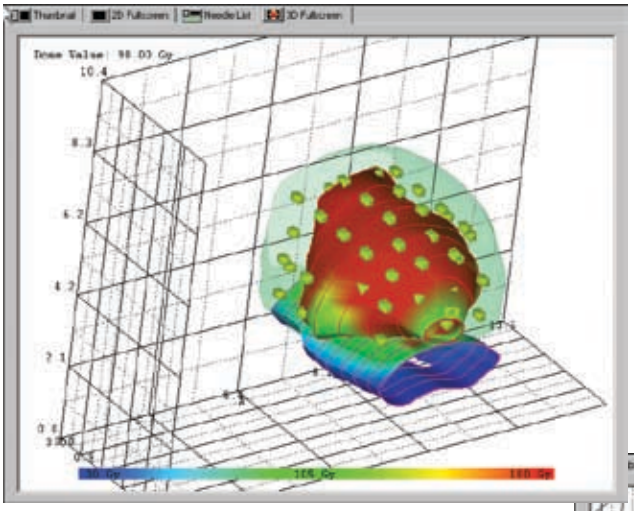
Best® TPS's™ comprehensive specification is the end result of user input and specific design requests. We are dedicated to our Clinical Need philosophy which provides for a collaborative development between the medical professional and TeamBest. We lead the way in new clinical developments towards the future of Brachytherapy.

The Best® TPS™ is an integrated software system that allows clinicians to develop and visualize brachytherapy treatment plans for treating malignant tumors in human tissue. The brachytherapy technique involves the implantation of radioactive sources commonly called "seeds" within the malignant tissue. The Best® TPS™ contains the following software modules, each designed to address a specific function:

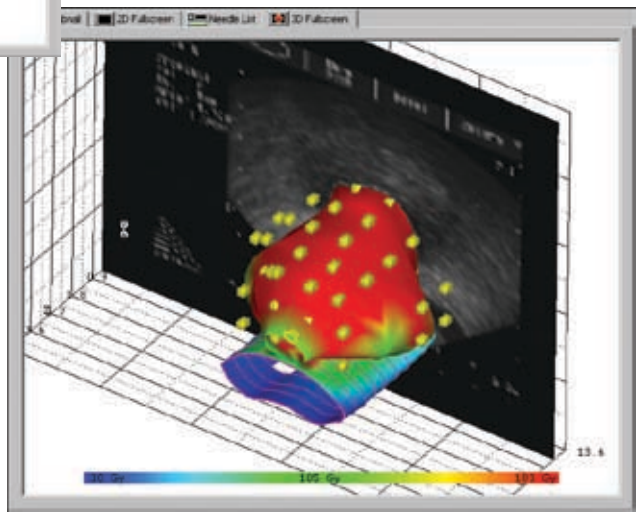
VolumePlan program utilizes multiple 2-D transverse ultrasound images to create a 3-D reconstruction of a patient's prostate anatomy. This volumetric data is used to delineate Planning Target Volumes (PTV's), regions of interest (ROI), or specific targets within the anatomy. Once the patient-specific anatomical geometry is defined, the software is used to plan the optimized placement of seeds for desired dose distribution. The radiation dose delivered is computed and visualized as isolines and isosurfaces and can be analyzed using tools such as the Dose Volume Histogram (DVH) and Dose Wall Rendering. Once a suitable plan has been developed, hard copies can be generated using the print utilities provided with the software.

CTPlan program focuses on the Quality Assurance (QA) of the brachytherapy plan. CT data is used to locate, identify and visualize the radioactive seeds placed in the anatomy and targeted areas. Clinicians follow a similar procedure as in VolumePlan by delineating Evaluation Target Volumes (ETV's), regions of interest, or specific targets within the anatomy. Once the structures are defined, the seed locations are identified and sorted. Dose is calculated and visualized in 2-D as user definable isolines and in 3-D as user definable isosurfaces. Custom reports can be generated and printed. CTPlan also allows for the auto segmentation and 3-D visualization of the bony and soft tissue anatomy directly from the CT data sets.

Scanner Interface program enables the clinician to import images from TWAIN compliant film scanning devices. These images can then be imported into either the VolumePlan or CTPlan modules for further analysis/77 processing.

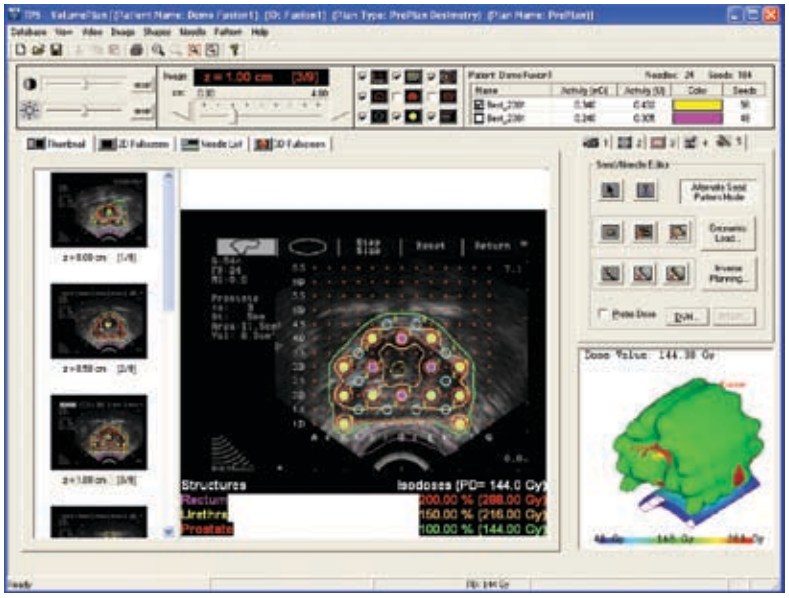


Structure wall dose rendering, along with volumetric ultrasound based imaging system for reconstruction of patient anatomyand dose verification.



Genetic Algorithm Inverse Planning allows users to compute optimized seed and needle locations based on geometric and dosimetric constraints.

Advanced sketching and visualization utilities assist in delineating 2-D & 3-D anatomical structures.

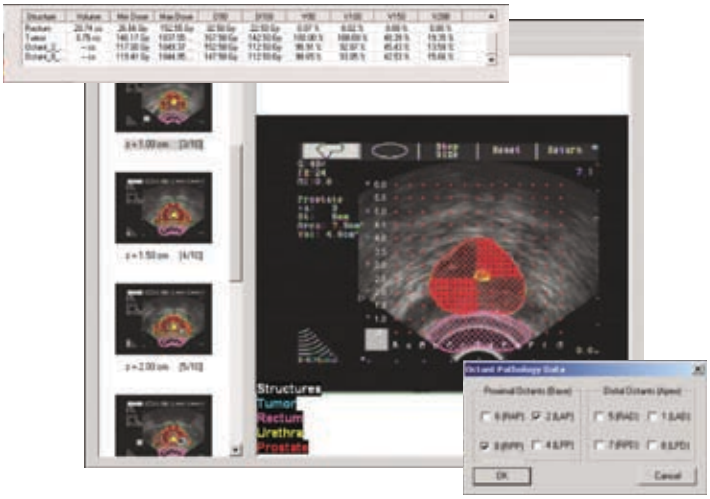


FEATURES UNIQUE TO BEST® TPS™

TeamBest believes in improved patient outcomes and developed our software by first identifying the clinical needs of the prostate Brachytherapy procedure through intensive research and clinical experience at major luminary sites. As such, we believe that Best® TPS™ is the current state of the art for prostate implants. The many advantages of the Best® TPS™ treatment planning system are too numerous to list for the purposes of this document, but we can chronicle a few specific features developed at the request of our users.

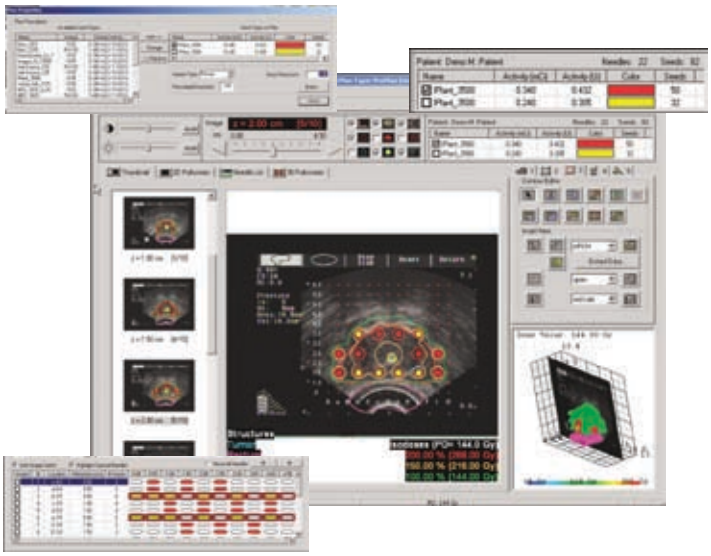
- Concurrent 2-D and 3-D visualization in all of the Best® TPS™ software modules provides for a level of quality assurance previously unavailable in a stand alone treatment planning system. Every step of the planning process – from outlining anatomical structures, placing seeds, calculating dose etc. – is instantly visualized in the 3-D window. Experienced dosimetrists have told us that since using our system they have changed and improved their treatment planning once they were able to visualize the process in real-time three dimensional models.
- Unique and advanced specialized planning tools such as the Slice Shifter provide for an ability to correct for movements and/or misalignments which occurred during the ultrasound image acquisition process, especially when that process is not in control of the treatment planning personnel. Allows for slice by slice adjustments to ultrasound images to correct for any misalignment of pre-implant volume study.
- Multiple image acquisition capabilities, including direct ultrasound feed, local area network via Dicom III, floppy diskette, VCR, digitizer, and flatbed scanner provide for unprecedented speed and flexibility. Acquisition of 2-D hardcopy ultrasound images via flatbed scanner is unique to the Best® TPS™ treatment planning system. This feature allows for the retention of the ultrasound image throughout the treatment planning process promoting improved patient care. Other systems use a digitizer, which does not retain the ultrasound data.
- Margin Grower and Volumetric (3-D) Margin Grower features make Best® TPS™ the only planning system that can grow volumes to adhere to the new RTOG protocols
- The Pattern Load feature provides for user definable standard seed patterns and saves time by allowing re-use of good designs to initiate new plans. Of all our seed placement utilities, this is the most widely used and appreciated features.
- Seed Pattern Save feature allows the user to store a specific pattern in a database in order to recall the pattern and overlay onto an intraoperative volume study for a quick check of preloaded needle dose distributions on a time of implant prostate volume.
- Needle Load Patterns can be e-mailed to seed vendor for pre-loaded needles.
- Treatment Plans can be e-mailed to, reviewed from, and printed by any PC.
- Intelligent optimization for automatic seed loading patterns (SmartLoad®)
- 2-D editing of needle and seed placement with simultaneous 3-D viewing for quality control.
- Clear simultaneous visualization of dose distribution by isodose lines and isosurfaces, dose volume histograms (DVH) and dose wall rendering.
- Treatment plans and reports are in Excel format, to allow viewing and printing remotely. File is viewed as a color isodose distribution with or without images in background; pre and post plans can be easily e-mailed to participating physicians.
- Image Cut and Paste used when length of prostate in sagittal view does not correlate with number of transverse images. Allows for the insertion of an actual ultrasound image and not a blank slice. Eliminates the need to redo an erroneous volume study created when the prostate moves along with the ultrasound probe.
- 3-D Dose Cloud automatically defaults to prescribed dose in planning system and in printouts. Other systems default to an arbitrary value that has no relation to the actual plan. In other systems, prescribed dose in 3-D has to be set manually with each plan.

- 1 Centimeter Spacers in Printouts eliminate the reporting error created when using a series of 5.5 mm spacers to separate seeds in needles with a seed at the base and apex. Loads typically used along the urethra at little C & D 2.5 and 3.5.
- Dual Activity Module ability to create treatment plans with seeds of different activities.
- Octant DVH Module ability to view the DVH values of specific prostate volumes.



OCTANT DVH MODULE

DVH analysis for discrete volumes within the prostate gland



DUAL ACTIVITY MODULE

Conformal dose distribution for critical structures and defined regions of interest

ULTRASOUND/CT

Concurrent viewing of pre- and post-implant images, structures, and dosimetry data

Complete zoom and translation of all 2-D and 3-D images

Fuse coordinate systems of Ultrasound based pre-plans and CT based post-plan

One button copy of pre-plan contour onto post-plan CT images

Expand, translate and modify prostate contours once placed on CT images

Margin Grower™ user definable, quick expansion of contours for planning and enlarged implant volume or expression of post-implant edema while maintaining original contours

Side-by-side comparison of pre- and post-implant Dose Volume Histograms and Dose Wall Histograms

Multiple dose visualization options including 2-D isolines and 3-D isosurfaces

Full access to Best® patient databases and image sets

Full anatomical structure definition and editing

Auto seed sort

Structure Surface Dose Visualization

Excel-based print reports

Volume reporting for all defined structures including post-implant edema

OUR SERVICE IS AS TRUSTWORTHY AS OUR PRODUCTS

We are committed to providing the highest level of customer training and support to ensure your practice runs smoothly without disruption to patient throughput.

SPECIALISTS ON CALL

Our specialists are on call Monday through Friday, 8 am to 5 pm EST. After-hours support is available via a paging system.

OUR FIELD SERVICE ENGINEERS RESPOND QUICKLY

We are committed to responding promptly to your needs, and providing the highest level of customer support available.

YOU ARE UP AND RUNNING FAST WITH ON-SITE APPLICATIONS SUPPORT

Our highly experienced team provides hands-on training so you are up and running quickly.

DEDICATED TO PROVIDING TREATMENT OPTIONS

At Best® NOMOS®, everything we do is designed to provide targeted, accurate and effective treatment for patients who are fighting cancer. By making our advanced technology available and affordable, we are helping more oncologists and clinicians treat more patients at more locations than ever before.

Best® NOMOS® is a member of TeamBest™ – a family of Best® Medical companies.

From brachytherapy seeds and equipment, dosimetry kits, phantoms, treatment planning systems, an array of medical/health physics equipment, and product remanufacturing/servicing, to radioactive sources, gamma teletherapy machines, cyclotron systems, and particle therapy treatment, TeamBest™ has it all!

Check out each company's site at **www.teambest.com**

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