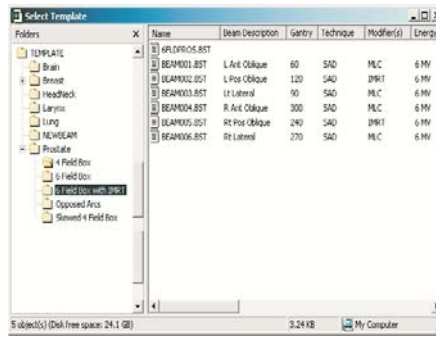
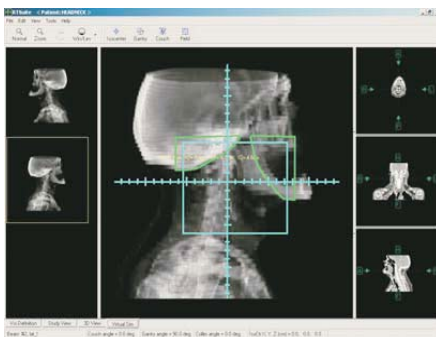
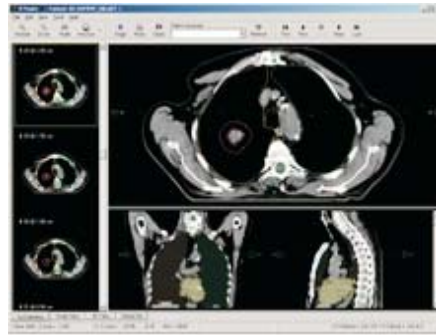
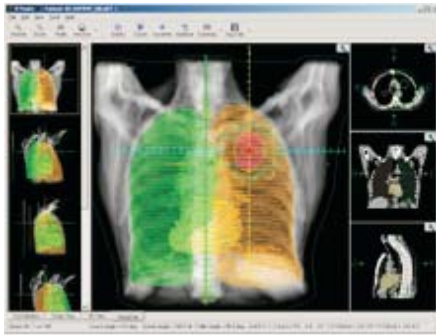


## Treatment Planning & Virtual Simulation System for Radiation Oncology



### MULTIDATA

### RTSuite: Reliability & Speed for the Daily Routine

RTSuite is the optimal environment for treatment planning and virtual simulation in today's clinic. Easy to learn and easy to use, RTSuite offers speed and reliability for the daily routine combined with compatibility with modern treatment machines and methods.

#### RTSuite:

- is an user-friendly, intuitively organized environment for virtual simulation & treatment planning tasks
- is easy to learn, easy to use
- is a PC-based system, assuring fast and reliable performance and hardware that is easy to maintain and to upgrade
- allows the distribution of virtual simulation and treatment planning tasks across the network to achieve optimal workflow in the clinical environment
- supports DICOM RT and the proprietary formats of all leading manufacturers
- is compatible with all linear accelerators and cobalt therapy machines and their record and verify systems
- is a powerful tool in the development and enforcement of departmental quality standards through the RTSuite "Treatment Template" approach

### Achieve the Best Workflow

RTSuite offers PC-based "Workspaces" that can be readily distributed throughout the department to achieve the best workflow, distributing tasks and access to patient data where and when needed.

Treatment preparation functions such as patient demographics and geometry management, treatment volume definition, treatment port design, dose prescription and plan review can be performed at any Workspace or assigned to specific Workspaces intended for different users.



## More Flexibility, More Access

The optimal distribution of tasks in your clinic better utilizes your human and equipment resources. Access patient information and plans when and where useful, without losing valuable time waiting or interrupting other staff or processes.

Work smarter at an RTSuite Workspace - with the right tools, at the right place.

### Workspace Configurations and Associated Tasks

Install RTSuite Workspaces anywhere and everywhere where access to treatment planning or virtual simulation is desired: in the physician's office, simulator control room, conference room or home office. Typical Workspace configurations and their dedicated tasks include:

#### Physician's Workspace

Developing target volumes, plan comparison, review and approval.

#### Plan Development Workspace

Import of patient demographics and image data, acquisition of contours/definition of volumes. Import/export to patient positioning and virtual simulation systems. Beam shaping and placement.

#### Plan Delivery Workspace

Review plans, access reconstructed views for comparison with delivery/treatment verification, documentation and print outs.

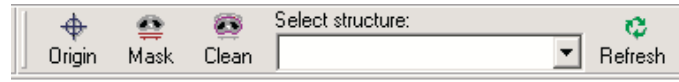
#### Physics Workspace

Review plans in all stages, access and manage beam data libraries import and compare information from the R & V system.

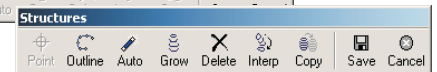
Alternative Workspace configurations can also be created.

### An Intuitive and Easy to Learn User Interface

RTSuite Modules are Windows applications that are intuitive and easy to use. Each module's taskbars are organized around typical planning tasks enabling new and occasional users to work productively from the start. Context-sensitive menus offer the functions appropriate to the current task and guide the user through the planning or virtual simulation process.

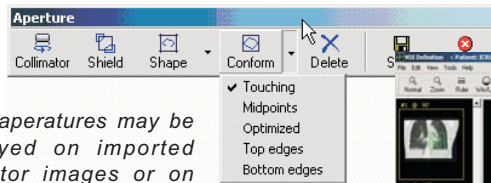


Relevant tools are presented at each stage of the plan development process, for example, the couch mask feature, available during the selection of CT-slices for further planning tasks.



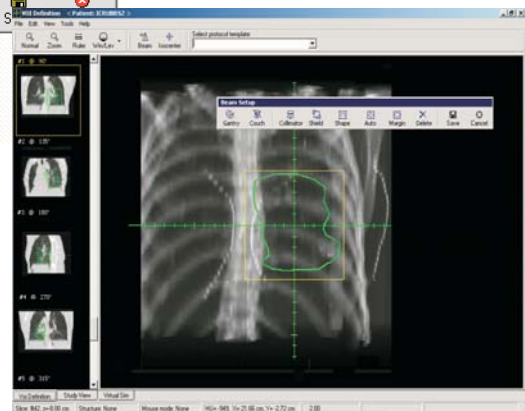
In VOI mode, structures can be entered using the semi-automatic contouring tools. The "Structure" menu presents a list of organs for potential contouring as defined per anatomical site or treatment protocol. Windowing and display preferences are likewise saved together with the anatomical site or treatment protocol settings.

Complex plans can be developed quickly through the flexible combination of pre-defined templates and automated beam setup and shaping functions.



Beam apertures may be displayed on imported simulator images or on reconstructed radiographs.

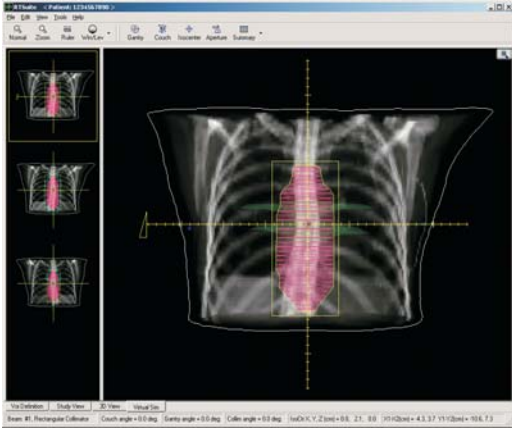
Beam parameters may be entered using automatic tools, graphically by sizing and shaping the field on screen, or by entering parameters in the beam setup dialog window.



RTSuite Workspaces offer radiation oncology professionals a comfortable user interface and convenient tools. This speed and ease make RTSuite Workspaces ideal for departments offering their patients individualized treatments while managing a high patient load.

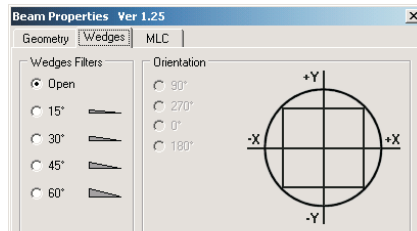
## Interactive and Context-Sensitive Tools

Beam shaping is easy and interactive with RTSuite. Use the mouse to drag-and-drop a beam to its desired location, click on an isocenter to drag it to its new location. Double click on a beam to open the beam dialog box to inspect the parameters or edit them manually. Or select the beam from a drop down menu. With either method, new and experienced users alike will quickly find the method that suits them best.

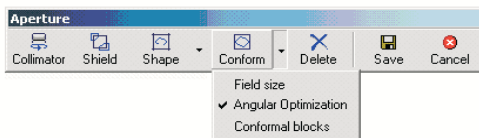
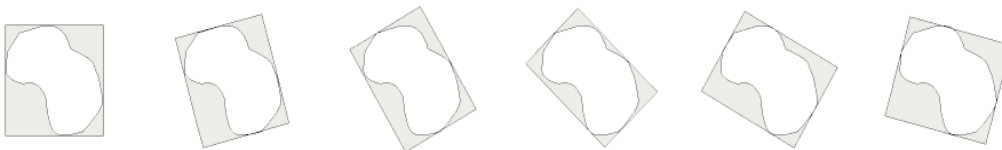
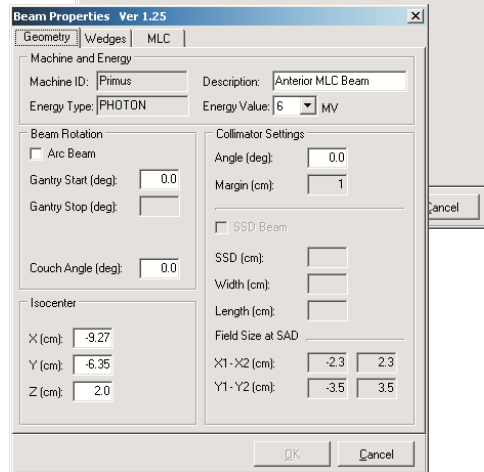


The on-screen representation of beam parameters is easy to interpret. Here the PTV is projected over a digitally reconstructed radiograph (DRR).

Clicking on the beam or selecting it from the pull-down menu opens the beam editor dialogue for review or further editing.



Semi-automatic functions aid beam positioning and sizing. For example, the system can suggest a field size or angle of rotation based on the given PTV and a margin chosen by the user. Assymetrical jaws can close down automatically to the PTV at the specified margin. Or use other shaping functions such as the interactive auto-block tool.



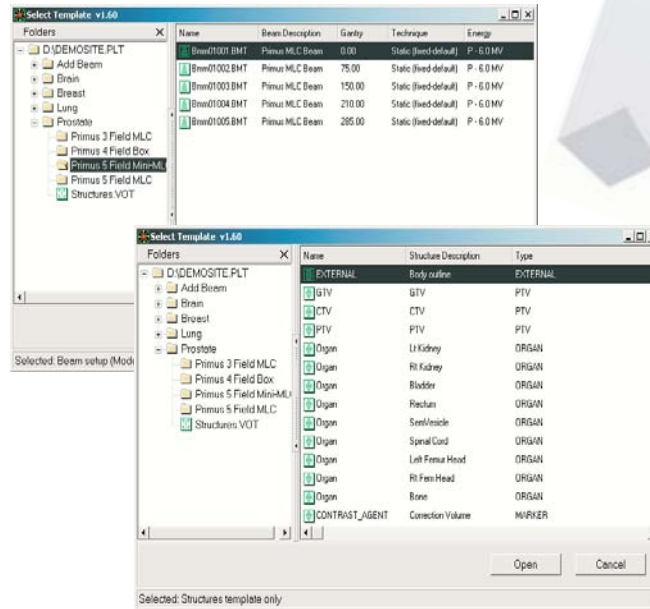
Various tools are available for conforming beam position, size and shape to the target volume. For example, when the Angular Optimization function is invoked, the system suggests an optimal field size and degree of field rotation by calculating MBRs (Minimum Boundary Rectangles) at 15 degree intervals.

# RTSuite

## Treatment Planning & Virtual Simulation

### RTSuite: An Important Component in Your Quality System

RTSuite addresses today's high quality standards of performance with such features as the powerful RTSuite "Treatment Templates" feature and the "Protocol Setup" function. Once system defaults and templates are implemented, their regular use automatically helps document and enforce the clinic's own treatment protocols and procedural standards.



*Protocol templates simplify the planning process by setting up view and handling defaults, structure lists, and beam setups reflecting the agreed upon departmental practice or protocols*

### Achieve Treatment Quality Goals - with Higher Productivity

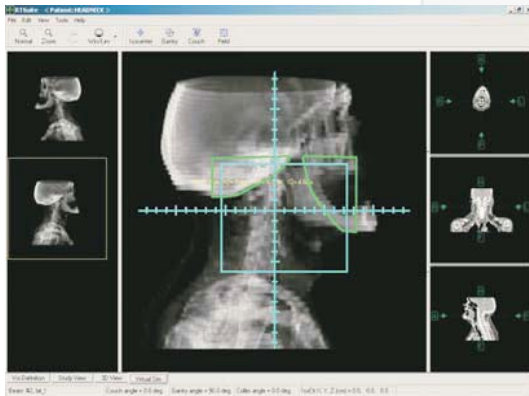
RTS Treatment Templates reflect the treatment practices as intended by the clinic's responsible professionals, and constitute a useful tool in maintaining and documenting consistent, quality practices. At the same time, templates simplify your work by automatically offering the visualization preferences saved with a particular protocol (and therefore typically associated with a certain anatomy), together with the defined treatment objectives, structure (contour/volume) properties, structures-to-be-defined worklist, and pre-defined beam arrangements.

Inter-user plan variation can be managed, for example, by assuring that all users work from the established structure worklists and apply the same plan templates, and deviations and plan individualization can be easily traced and described. This approach can positively contribute to the communication and documentation process within the clinic.

Improve productivity while fulfilling treatment quality goals – simply the smarter solution!

## Connectivity & Interoperability

With superior compatibility across manufacturers and equipment types, RTSuite interfaces with your existing equipment and with future investments. RTSuite supports DICOM RT and custom interface expansions are available to accommodate proprietary DICOM RT extensions as utilized by some manufacturers. Furthermore, RTSuite boasts extensive support for proprietary formats, including formats for legacy systems that may otherwise be difficult to integrate.



*Portal imaging and simulator images can be imported and compared with the digital reconstruction from the CT data set.*

*Beam parameters and shaping can be imported from another system easily entered vis-a-vis the screen.*

Connect and transfer data to:

- the treatment machine IS to export beam parameters
- the segmentation program for your treatment machine (IMRT)
- a simulator to send or receive images and beam settings
- a virtual simulation system to receive reconstructed images, patient structures & beam parameters if already entered
- another treatment planning system for a comparison calculation
- another treatment planning system for calculation after using RTSuite as a convenient patient data entry workspace (contouring, target volume entry) at a convenient location away from the TPS

Additional custom (proprietary) or DICOM RT-based interfaces may be added as your clinic expands and equipment changes.

# RTSuite

## Treatment Planning & Virtual Simulation

### Scalable & Cost-Effective

The RTSuite treatment planning and virtual simulation system can be readily scaled and customized to match your department's resources and needs. A RTSuite installation can be tailored to your department's workflow, patient load and investment timeline. Cost-effective and easy-to-use, RTSuite offers convenience and productivity from day one.

### RTSuite: A Perfect Fit

#### More Quality for More Patients with RTSuite

- Optimize workflow and information distribution within the department with RTSuite Workspaces.
- Plan more patients and compare alternative plans readily with the powerful and easy-to-use RTSuite user interface.
- Secure a cost-effective and flexible upgrade path that assures future compatibility and protects your investment.
- Integrate your treatment protocols into RTSuite and apply RTSuite Treatment Templates as part of your quality system.
- Assure compliance and correct documentation while making work easier.

*Simply the Smarter Solution!*

## MULTIDATA

10816 Indian Head Industrial Blvd. • St. Louis, MO 63132, USA • Tel. +1(314) 968-6880 • Fax 968-6443  
Blumenstrasse 1 • D-56070 Koblenz, Germany • Tel. + 49 (261) 91545-0 • Fax + 49 (261) 91545-99  
info@multidata-systems.com