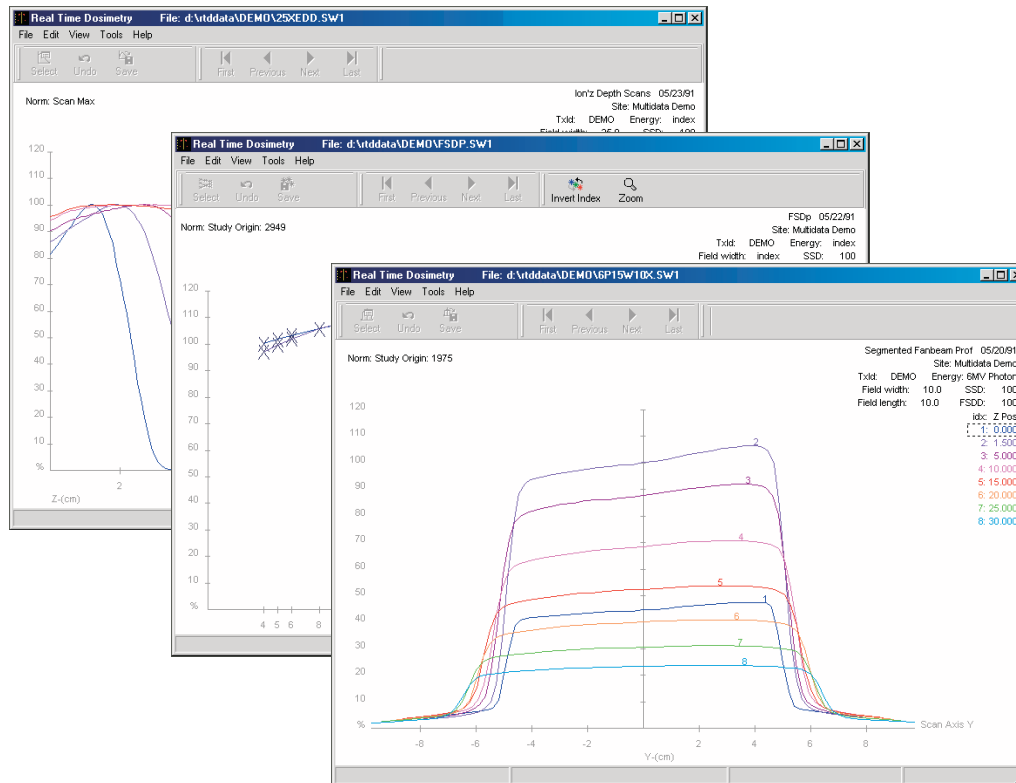


Beam Data Library Generation and Datalink



Data Processing and Transfer Tools for Developing a Treatment Planning Beam Library

Datalinks for transferring beam data to most current and many legacy treatment planning systems are available as options to the RTD System.

Each datalink is customized for the beam data requirements, expected file format and communication capabilities of the destination planning system. All datalinks include software utilities for converting scanned data into a format specified by the TPS.

- Scan depth dose, profile and field size dependent factor data in the fastest, most convenient way
- Assemble a beam library dataset using the Microsoft Explorer® cut, copy and paste tools
- Format the dataset to meet the requirements of the treatment planning system
- Transfer the dataset via storage media, network or serial communications link, using industry standard or proprietary communication utilities

RTD Datalink to Treatment Planning System

Datalink Overview:

The RTD datalink assists the user in formatting and exporting data for a treatment planning system. The datalink allows an RTD (Windows 2000® or XP®) workstation to send beam data files to the treatment planning workstation. The actual communication method used, utilities, configuration and initialization files provided depend on the specifications of the treatment planning system.

The RTD scanning system supports the beam data geometry, organization and resolution recommended by the individual treatment planning manufacturers. Protocol templates including predefined acquisition plans for the required beam data are also optionally available.

RTD and Datalink Features:

The RTD software package includes extensive tools for optimal scanning session preparation, measurement and post-scanning data processing. Together with the appropriate datalink, Multidata RTD is the ideal system for the generation and export of beam data libraries to any treatment planning system from any manufacturer.

- RTD's updated datalink preserves the point resolution of the scanned study through the export process. RTD supports up to 2048 data points per scan, with point spacing as small as 0.25mm.
- RTD allows all profile scans for a particular beam energy, at all specified depths and field sizes, to be assembled into one study for export. The RTD extended study format permits up to 975 scans to be included in a single study.
- RTD allows data to be efficiently scanned and processed in studies organized by energy and field size, then assembled with intuitive "Clipboard" copy and paste functions into a single depth and profile study file for each energy for export.

RTD Datalinks are available for most commercial (also legacy) systems:

- Adac / Philips Pinnacle®
- MDS Nordion TheraPlan®
- Plato and Oncentra Masterplan®
- CMS Xio and Focus®
- Multidata RTSuite & DSS®
- Varian Eclipse and CadPlan®
- Helax TMS®

Datalink Components:

The following components provide data conversion and handle the actual data transfer from the RTD workstation to the treatment planning system:

- RTD TPS Export Option – Installable software option for RTD 4.0 Analysis which allows RTD study files to be reformatted and saved in the designated proprietary TPS beam data file format.
- File Selection Utility – Provides a Windows-standard file selection dialog box, which allows the user to select a dosimetry data file, previously converted from RTD study file format to the TPS file format, for transfer. The File Selector serves as the primary user interface to the data transfer utility, and provides information about which data to transfer.
- Transfer Initialization File – Specifies the data transfer parameters and the destination port to which to transfer the dosimetry data.
- Communications Package – When required, provides or specifies the actual communications between a Windows-based RTD control unit and a UNIX or Linux based TPS. Content varies with the TPS specified.

Minimum System Requirements

- RTD Analysis software version 4.0 or higher
- Windows 2000®, XP® or Vista® operating system