



SmartSpot *View*™

INDEPENDENT PROCESSING AND REVIEW STATION



PRODUCT SPECIFICATION

CMT

Smart

APPLICATION

The SmartSpotVIEW independent processing and review station enables quick processing, analysis, manipulation, display, filming, storage and retrieval of images from different acquisition stations. The SmartSpotVIEW combines a powerful PCI-based workstation running under the Windows NT operating systems with state-of-the-art object-oriented software and connectivity. The system's mouse-driven Windows-based user interface makes learning and using the system both fast and easy.

COMPUTER AND DISPLAY

system computer

PCI workstation based on PENTIUM processor.

main memory

128 Mbyte RAM

operating system

Windows NT

user interface

Mouse-driven Windows Graphic Interface

display monitor

1,600 x 1,200 pixels

150 MHz bandwidth

21-inch color

COMMUNICATION AND NETWORKING

SmartSpotVIEW implementation of the DICOM 3.0 communications protocol (**optional**) allows connectivity to DICOM 3.0 compliant stations. In addition, SmartSpotVIEW can retrieve images from the SmartSPOT[®] family of High Resolution Digital Photospot systems.

DATA STORAGE

Hard Disk: at least 2,000 images 1,024 x 1,024 x 10 bit

Local Erasable optical disk: 2.6 Gbyte cartridges (**optional**)

CONNECTIVITY

Digital Laser Interface using 3M digital protocol (**optional**)

DICOM 3.0 network interface (**optional**)

REGULATIONS COMPLIANCE

FDA

IEC601-1 (1988), First Amendment (1991) and Second Amendment (1995)

IEC601-1-2 (1993)

IEC601-1-4 (1996)

MDD 93/42 EEC

Spot View™

IMAGE PROCESSING AND REVIEW

- Patient review
User-selectable studies/series may be transferred to the Viewer application for review/processing.
- Window/level
Continuously variable width/center (Brightness/Contrast) of the displayed image
6 preset windows may be programmed by the operator.
- Automatic Windowing
Automatic determination of the optimum window settings within a user-selectable Region of Interest (ROI).
- Window polarity inversion
Positive/negative polarity, user-selectable.
- Image inversion
Enables rotation of the image by 90°, 180° and 270°. Horizontal and vertical reverse are available as well.
- Electronic zoom with pan & scroll capabilities.
Fixed zoom values of 1.2, 1.5, 2, 3 and 4.
Interactive continuously variable zoom, with magnification factor of up to X4.
- Magnifying glass
Zoom of X2 in a user-selectable Region of Interest.
- Text
User-selectable text can be superimposed anywhere in the image. Text may be moved/removed within the image.
- Graphic aids
Included are lines, cursors, arrows, and ROIs.
- General image filtration (up to 7 x 7 kernel).
Nine preset filters are available.
- Cine
Images may be displayed as a cine animation at a user-set rate or via mouse-driven leafing using the scroll bar.
- Shutters
Data outside the image's active area is blackened, thus increasing image conspicuity. Determination of the active area is performed either automatically or under user's control.
- Gamma corrections
Different gamma corrections curves (user-selectable) for the workstation monitor and laser imager.
- Multiformat display
Formats of 2, 4, 6, 9, 12 and 20 images within a single frame.
- Image editing

Copy	Duplicate
Cut	Paste
Swap	Delete
- Automatic background filming (**optional**)
Images are transferred to the printer in the background, thus enabling the performance of further processing tasks.
- Subtraction with user-selectable mask

OPTIONS

Digital laser interface

Images from the film previewer application may be printed on any laser imager complying with the 3M digital protocol.

EOD (Erasable optical disk)

Last image hold fluoroscopy images or digital radiography images may be recorded on magnetic media.

DICOM interface (by Merge Technologies)

Industry standard connection to the Hospital Digital Environment. Storage and/or printing of images on external devices are supported.

Angiography Package

Large set of images can be quickly processed to enhance vascular structures. Resulting images can be interactively generated, windowed, filtered, zoomed and panned.

Subtraction

Post-processing subtraction with linear or logarithmic transformation and variable weighting factor.

Pixel shifting

The relative position between the "mask" and "contrast" images can be modified by the operator. Shifting resolutions are 1/8, 1/4, 1/2 and 1 pixel. A "home" function enables the realignment of the original images.



User-selectable mask

Any image of the set may be selected as a mask just by point-and-clicking it.

DSA

An "optimum" DSA image is obtained using a maximum or minimum intensity projection algorithm. The "optimized" mask is obtained using averaging techniques.

INSTALLATION REQUIREMENTS

Power requirements

115 VAC / 5 A or 220/230 VAC / 2.5 A

Temperature range

operation: 13 - 35°C (55 - 95°F)

storage: -40 - 60°C (-40 - 140°F)

transport: -40 - 60°C (-40 - 140°F)

Relative humidity (non-condensing)

operation: 20 - 80%

storage: 5 - 95%

transport: 5 - 95%

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Windows NT is a trademark of Microsoft Corp.

PENTIUM is a trademark of Intel Corp.



MEDICAL TECHNOLOGIES

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