SIENET MagicView 300
Image Reporting, Image Processing
and All That Goes With It
Software Version VA30
The new MagicView 300 software is a versatile and usable means offering limited reporting functions and processing functions for digital images in clinical use. The MagicView 300 can adjust to various conditions and requirements with its optional additional function modules.

The modules for teleradiology, film digitizing, CD-ROM support, archiving and printing of DICOM images together offer a comprehensive solution from the acquisition of images on film, via processing and archiving up to printing and distribution.

Here the new syngo user interface, with its tab cards specific to the individual function blocks and options, helps the user to navigate simply and clearly through the programs at all times.

MagicView 300 workplaces can be organized in a Cluster configuration (Server/Client) or as stand-alone PCs.

Areas of application:
Example: Image and report distribution
e.g. for OR or emergency studies whereby all MagicView 300 Clients access the same data.
Example: Mini-PACS
Combination of MagicView 300 workplaces and a MagicView 300 Archive optionally with Jukebox as Ultrasound Mini-PACS for example.
Example: Stand-alone Archive for Modalities
Cost-effective alternative to MOD-/OD-archival.
Example: Teleradiology
For on call or for obtaining a second opinion. A scanner can be connected to digitize X-ray film.
Example: Viewer on CD
The images together with a viewer on the CD can be sent as an electronic film sheet. A service to the referring doctor.
Example: Clinical rounds and clinical demonstration
The MagicView 300 is suitable for use as a demo console or for preparing the images on the clinical-round trolley. Patient data can be prepared and called up in the correct sequence during the clinical-round using the manual worklist.

Use existing technology
With the SIENET MagicView 300 virtually every PC can be an image reporting (limited) and processing workstation. This software solution allows you to use existing PC hardware on the ward, as long as it meets the requirements.
The following modules are available:

- MagicView 300 basic version
- + Extended functionality
- + CD-ROM processing
- + Film digitizer
- + Teleradiology
- + Archiving
- + DICOM Basic Print (as of VA30B)

MagicView 300 basic version:
**Efficient Image Reporting (limited) and Processing**

Using the MagicView 300 software is easy to learn. The syngo user interface allows intuitive operation. The graphic user interface varies according to the corresponding functionality. A comprehensive Online-Help as well as a Quick Reference Guide help to clarify questions which arise.

Image Reporting (limited)/ Image displaying

- Autoload function (Multiple selection of patients/studies and simple paging with Patient +/-, Study +/-, Series +/-)
- Selectable screen layout
- Full image display (Blowup) via mouse click
- Paging through the examination
- Display of multi-frames (e.g. Ultrasound/Nuclear medicine)
- Color display in true color (16 million colors) but also monochrome
- Synchronous display of two examinations
- Dynamic image display (Cine function)
- Report Viewer for calling up and displaying reports from RIS. Joint display of image and report on one monitor.

**Processing Tools**

- Grey scale windowing with the mouse (12 Bit)
- Pre-set window levels
- Invert
- Rotate
- Mirror
- MagicGlass
- Continuous Zoom/Pan
- Distance and angle measurement (incl. calibration function)
- Pixel Lens
- Histogram
- Annotations to the images with text and graphic
- Configurable text layout
- Storing image processing functions
- Image exchange to other Windows programs via the clipboard
- Image and report printout on PostScript paper printers

In the U.S. paper printouts should not be used for diagnosis, unless the Post Script printer has specifically received 510(k) clearance for this purpose.

Extended Functionality: It gets even better

The additional software module “Extended Functionality” is the pre-requisite for the configuration of a MagicView 300 workplace as server in a cluster configuration. Additionally this software offers the following further data management and processing functions:

- One or two monitor operation
- Additional screen layouts (Stack modes)
- Rearranging images with Copy/Paste/Cut
- Distribution of single images
- Import and export of TIFF and JPEG objects with DICOM-worklist
- Opening and processing the images while they are being received
- Configurable simple autoroute function
- DICOM-worklist for import and scanner functionality
- DICOM Query provider (the patient data can be queried from other DICOM stations)
- Access to all servers configured with access confirmation
- Provide access from other clusters

Patient and Study Management

- DICOM 3.0 compatible: Access to a central (DICOM-) archive
- Import and Export of TIFF and JPEG objects
- Call-up images via patients or examination lists
- Browser filter can be added-on
- Adjustable automatic deletion of the oldest examinations
- Interface to access the MagicView 300 Viewer from other applications like RIS or EPR
- Data compression when dispatching single images
**CD-ROM Processing:**
**Rounds it out**
This software module allows writing and reading of digital images to/from CD's.
- Write and read DICOM CD's
- To enable the image distribution on CD's, the Viewer can also be written to CD - so that the referring physician can view images on any PC without extra software installation

**Film-Digitizer:**
**Welcome to the digital world**
This module allows the connection of image and document scanners via a TWAIN interface. The digitized images and documents are then directly available in the viewer as digital data for further processing, storing and dispatch.
- Various display possibilities for overview of the scanned images
- Support of DICOM-worklist (with the “Extended Functionality” software package)

**Teleradiology:**
**Automatic Image Distribution**
With this software module, image distribution for teleradiology and on call services can be automated to a large degree. This means relief from routinely recurring distribution duties.
- Definition of rules for automatic dispatch of image studies with And/Or links and time control. Example: Send all CT studies involving the Abdomen to Dr. XY; between 8.00 AM and 4.00 PM to his workplace in the hospital and after 4.00 PM to his home PC under the telephone number ....
- The rules can be activated or deactivated singly
- Log of the current transmissions

**Archiving:**
**Everything under control**
This software module allows long-term storing of digital images on Archive CD's and their convenient management.
- Mini archive with long-term database and connection possibility for a Jukebox with 150 CD's
- Configuration as an automatic archive possible
- Allows access to image data also at series level
- Use, for example, in an ultrasound Mini-PACS or modality archive

**DICOM-Basic Print:**
**Expose film**
This software module permits (as of VA30B) the connection of DICOM Laser printers for printing to film.
- Complete DICOM-Print functionality for printing to film
- Various film formats
- Various possibilities to rearrange images
- Print single images or complete series
**Hard and Software Requirements**

**Stand-alone or Client configuration** (recommended configuration)

**Hardware:**
- Pentium III, 500 MHz
- RAM: ≥ 128 MB
- Graphic card: Matrox G200 or G400
- Monitor resolution: 1024 x 768 (not for diagnosis or reporting) / 1280 x 1024
- Hard disk: > = 9 GB
- CD-ROM Drive

**Software:**
- Windows NT 4.0 Workstation with Service Pack 4 or 5.

**CR-Reporting** (recommended configuration)

**Hardware and Software:** as recommended for the Stand-alone or Client configuration, but with SIMOMED-Monitor

**Archive configuration** (recommended configuration)

**Hardware:**
- 2 x Pentium III, 500 MHz
- RAM: 256 MB
- Graphic card: Matrox G200 or G400
- Monitor resolution: 1024 x 768 / 1280 x 1024
- Hard disk: RAID (Mirrored disks) size depending on the data volume which should be available on-line.

**Software:**
- Windows NT 4.0 Workstation with Service Pack 4 or 5.

**Server configuration** (recommended configuration)

**Hardware**
- Pentium III, 600 MHz
- RAM: 128 MB
- Graphic card: Matrox G200 or G400
- Monitor resolution: 1024 x 768 / 1280 x 1024
- Hard disk: 20 GB
- CD-ROM drive
- ISDN-Router

**Software:**
- Windows NT 4.0 Server, Service Pack 4 or 5 with the software package “Extended Functionality”. Up to 15 Clients can be connected.

**Scanner configuration**

In combination with the digitizing software module VIDAR® scanners are offered:
- Diagnostic Pro™
- Sierra™

**Performance Data:**

All values refer to 12 Bit images:
- Loading time for images from hard disk:
  - 512 x 512: < 0.5 sec/image
  - 7 MB: < 3 sec/image
- Cine function (512 x 512 pixels):
  - max. 25 images/sec.
- Windowing (1024 x 1024):
  - Realtime

**Licenses**

Corresponding to the modular construction of the MagicView 300 software the software licenses are available, application-related, for the Basic version and extended functionality as for the individual function modules. You only pay for the functions you really require.

The access of Clients to the software are controlled via “floating licenses”.

**DICOM Conformity**

The DICOM Conformance Statement can be found in WWW under http://www.siemens.de/med/e/dicom/.
The software described here is CE compliant in accordance with Directive 93/42/EWG Appendix VII, June 14, 1993. Under Appendix IX it is considered a class I product.

If the hardware is supplied by us and is labeled accordingly, it is CE compliant in accordance with EMC Directive 89/336/EEC and, if applicable, under LVD 73/23/EEC.

The scanners Diagnostic Pro™ and Sierra™ of VIDA® are conform with the regulations according to FCC class A.

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