

# Future *DigiMan*<sup>®</sup> DICOM PRINT MANAGER

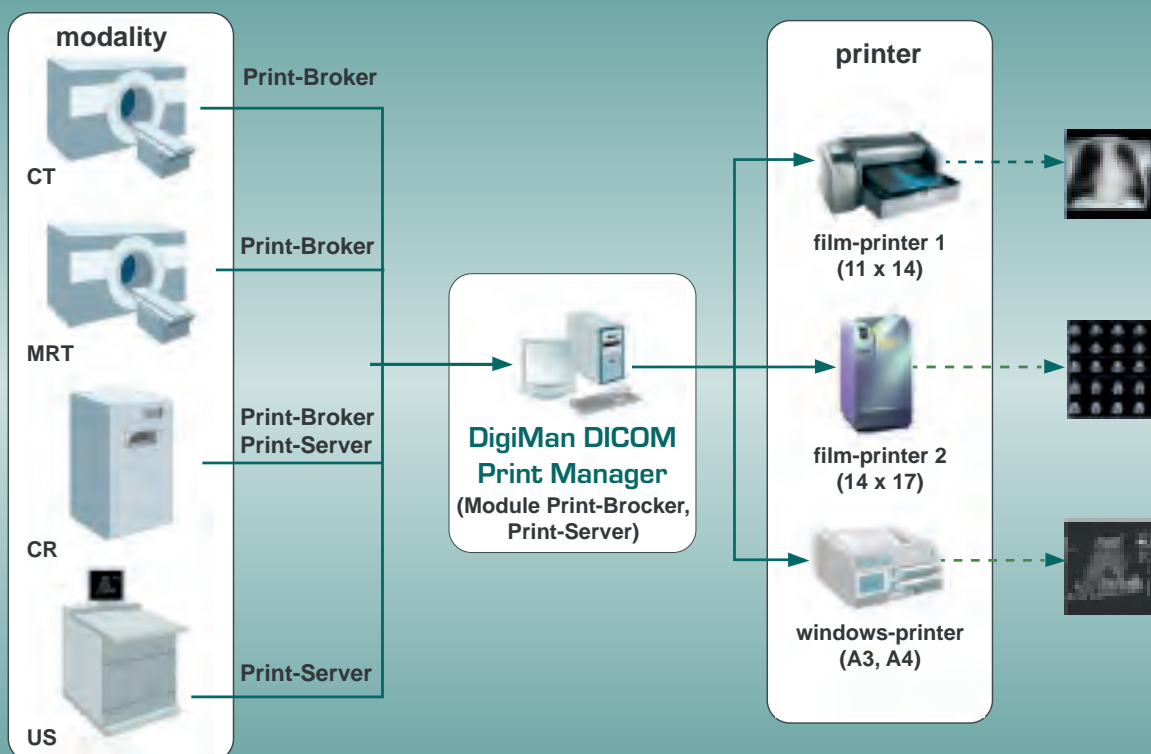
## Concept

DigiMan DICOM Print Manager allows the user to process the same print job on different DICOM printers or Windows printers. The DICOM print jobs are received from the DICOM modalities or workstations, administrated, and emitted page by page corresponding to the capability of the used printer. Print jobs can also be buffered and redirected. Thus, the DICOM Print Manager prevents that print jobs are cancelled and lost because of a capacity overload of the printer. DICOM paper print helps significantly to reduce costs.

## Modules

- **Print Server** module to print images cost-saving on paper via Windows printer. Fulfilling part 14 of the DICOM standard, the program assures optimal print results.
- The **Print Broker** module to manage print jobs to be printed on DICOM printers (**filmprint**).

## Examples for Use



The diagram shows the following examples for the use of the DigiMan DICOM Print Manager:

- Print jobs sent by the CT shall be printed on DICOM Printer 2 (**Print Broker** module). Normally, they would be too big and exceed the capacity of the printer. However, the storage management function of the Print Broker emits the print jobs bit by bit to the printer.
- Depending on the selected layout, the MRI can print on each of the two DICOM printers: 3 × 2 images on DICOM Printer 1 and 5 × 4 images on DICOM Printer 2 (**Print Broker module**).
- CR images are to be printed on the DICOM Printer 1 with format 11 × 14 (**Print Broker module**) as well as on paper A3 (**Print Server module**).
- The Ultrasound apparatus is printing on paper A4 (**Print Server module**).

## Functions

- Receives DICOM print jobs as Service Class Provider (SCP)
- Relates physical printers to logical printers via mapping and constraints, e.g. depending on the film size ID, medium type, or destination
- High error tolerance supporting even unusual DICOM interpretations
- DICOM Sniffer documents each communication between sending station, Manager and printer
- Allows different adjustments for the SOP DICOM classes (e.g. color or gray scale print)

### Print Server-Modul

- Diverts the received DICOM print jobs to any graphics-capable Windows printer
- Relates the clients to different printers or bins (e.g. A3 or A4)
- Fulfills part 14 of the DICOM Standard (printer = "standardized display device") for optimal print results
- Relates configurations to clients using "Called" and/or "Calling" AE Titles for maximum flexibility
- Provides cubic interpolation for highest quality image enlargement on the print-out
- Enables to insert foot-notes, e.g. with modality, department, logo
- Adopts layout information of sending stations and considers them for printing
- Supports various CUSTOM formats
- Provides individual print-out adaptation (margins, spaces, background color, etc.)

### Print Broker-Modul

- Prints on DICOM printers
- Relates print jobs and printers using "Called" AE-Title
- Print job management (buffering print jobs, redirection)

## Versions

DigiMan DICOM Print Manager has a modular architecture. The functions (Print Broker and Print Server) or capacities (Standard or Plus) can be combined individually:

- Print Broker or Print Server Standard: Connecting one or two modalities and printers
- Print Broker or Print Server Plus: The number of modalities or printers to be connected is not limited by the software, but only by the capability of the PC and printers

## System Requirements

- Intel i5 processor of the third or fourth generation, or comparable AMD processor
- Minimum 4 GB main memory
- SSD hard disk from 250 GB capacity
- Standard graphics card and monitor
- Network card
- TCP/IP capable network, at least 100/1000 Mbit
- Suitable DICOM printer (Print Broker module) and/or Windows printer (Print Server module)
- Windows 7, Windows 8 (32/64 Bit)
- USB 2.0 port for dongle licensing

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