



Medical Print Server Light (MPS Light) User's Guide

RB3L MPS Light Version 1.8.0.0

IMPORTANT:

This manual describes all the functionalities available in the full-option version of RB3L Medical Print Server Light Ver 1.8.0.0. Available functionalities of your product may be different from those described in this manual.

Introduction

This manual describes how to print from MPS LIGHT to a Printer or MFP Printer using DICOM Protocol.

Refer to the user manual of your standard printer model for instructions on tasks such as how to load paper and replace the consumables.

MPS LIGHT prints on Printer or MFP Printer, DICOM format images sent via a network from medical imaging applications and medical devices.

MPS LIGHT can generate pages in both grayscale and color on Printer or MFP Printer

Features of RB3L MPS LIGHT

- High quality printing
- Compliant with the DICOM 3.0 standard
- Reliability
- Ergonomic features
- Achieves low-cost DICOM-compatible printing

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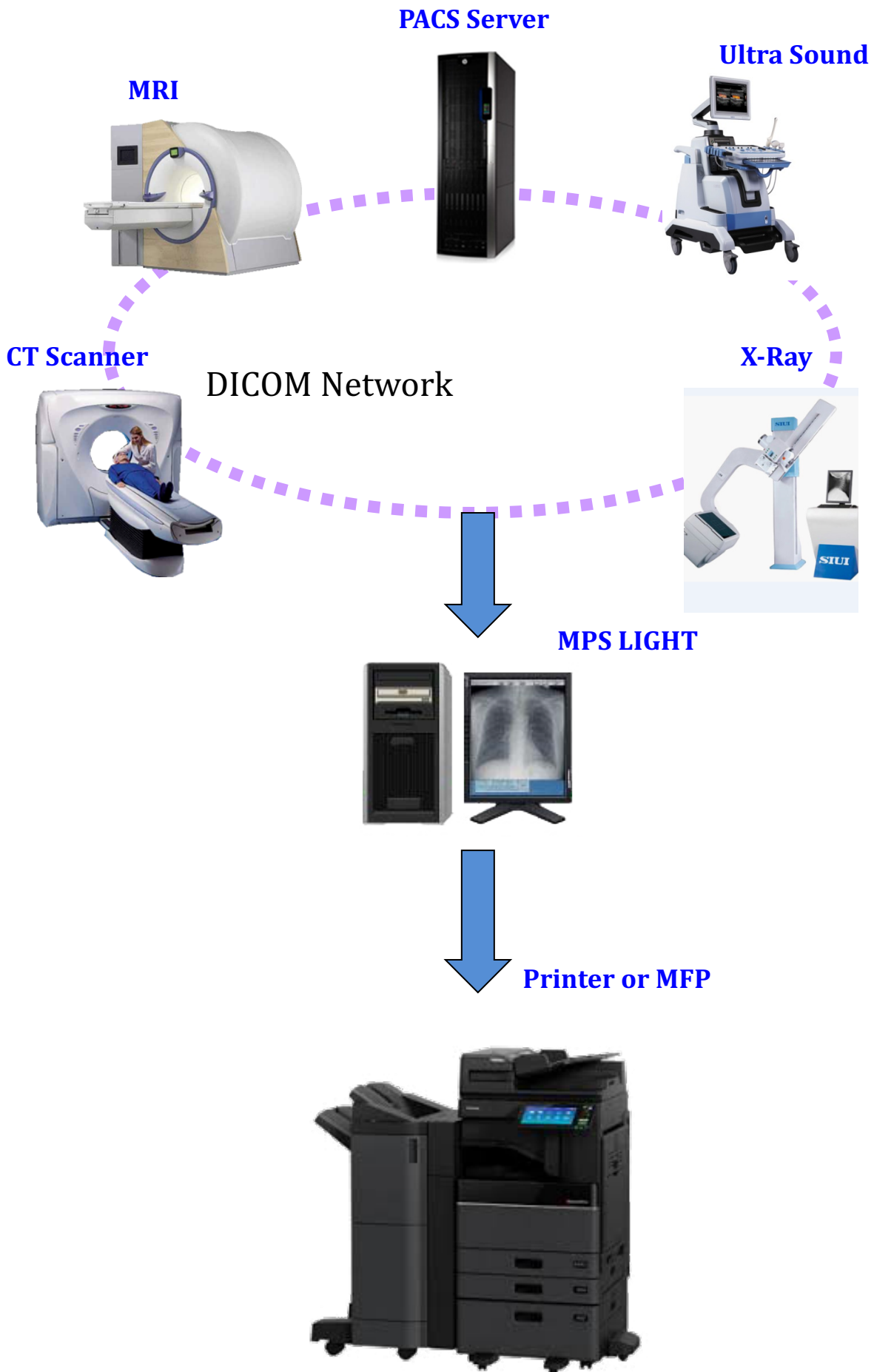
Document Terminology

Control panel and interface messages are all provided in English in this document.

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Sample DICOM Network



1. Setting up MPS LIGHT

1-1 Install the Printer or MFP Printer

The following procedures are performed in accordance with the Setup Guide/User's Guide/Network Guide supplied on CD/DVD with the printer.

- (1) Unpack your Printer or your MFP Printer (hereinafter referred to as printer) from the packing box and install it.
- (2) Remove the protective tapes and the protective sheets from the printer.
- (3) Install the image drum and Toner (for laser printer) or ink cartridges(for inkjet printers).
- (4) Load paper on the paper tray.
- (5) Connect the AC cable to the printer, and turn on the power.
- (6) For Lan printer, Enter the IP address, which is provided by your network administrator, using the printer control panel.
- (7) Perform test printing, and confirm that the IP address is set for the printer correctly.
- (8) Connect the network cable to the printer.
- (9) Shutdown the printer and turn off power.
- (10) Turn on power. After finishing required process, the printer reboots automatically.

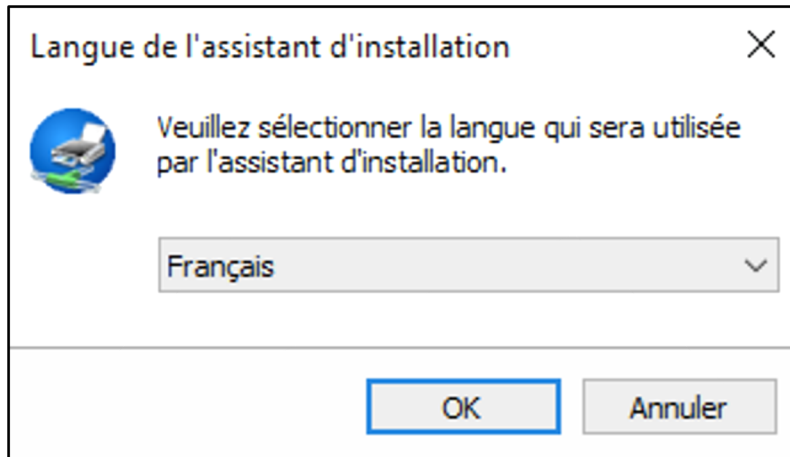
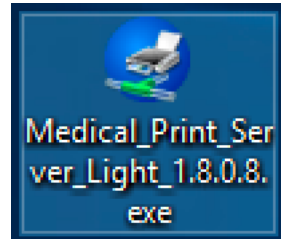
Next, set up the printer from your PC* (Personal Computer) as instructed as follows.

Prepare a PC connected to the same network as the printer.

Note *The Personal Computer must run Microsoft Windows© 7 as minimum.

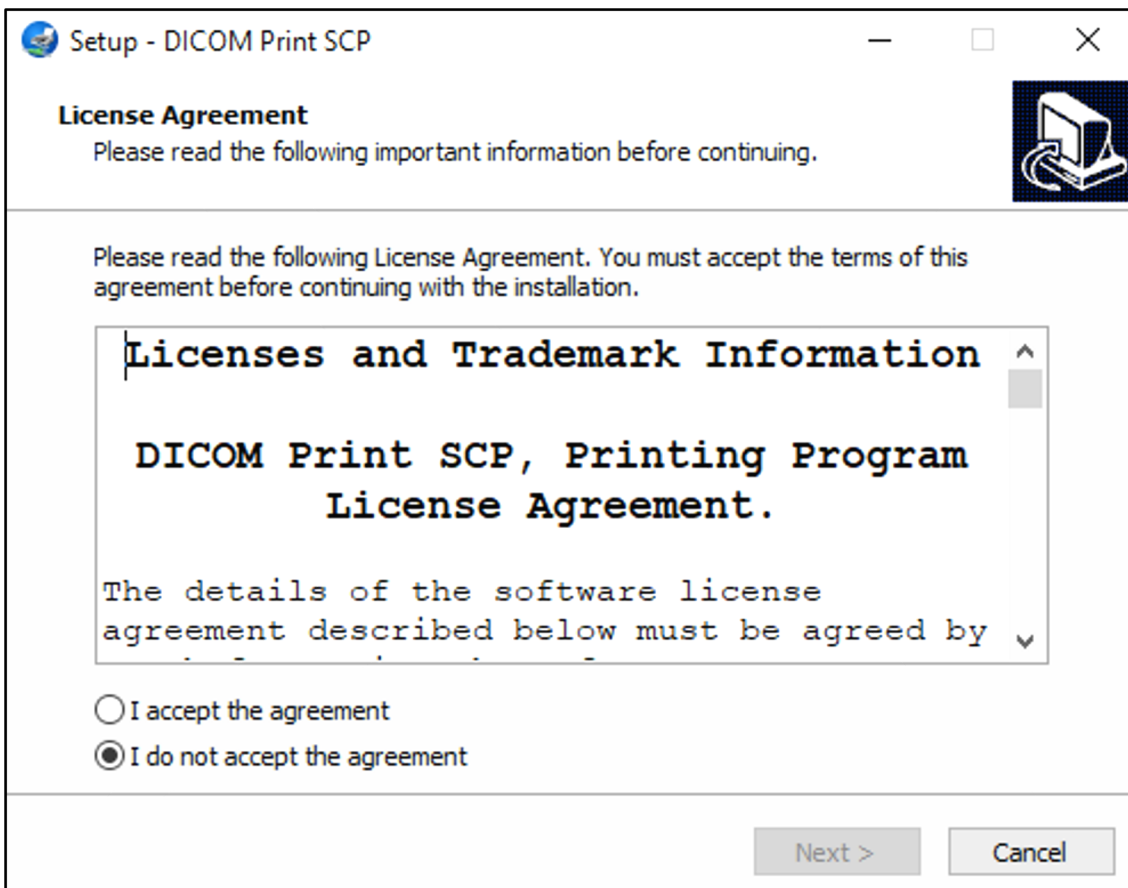
1-2 Install the MPS LIGHT on your PC

Launch "MPS LIGHT Setup.exe" by double click on it.

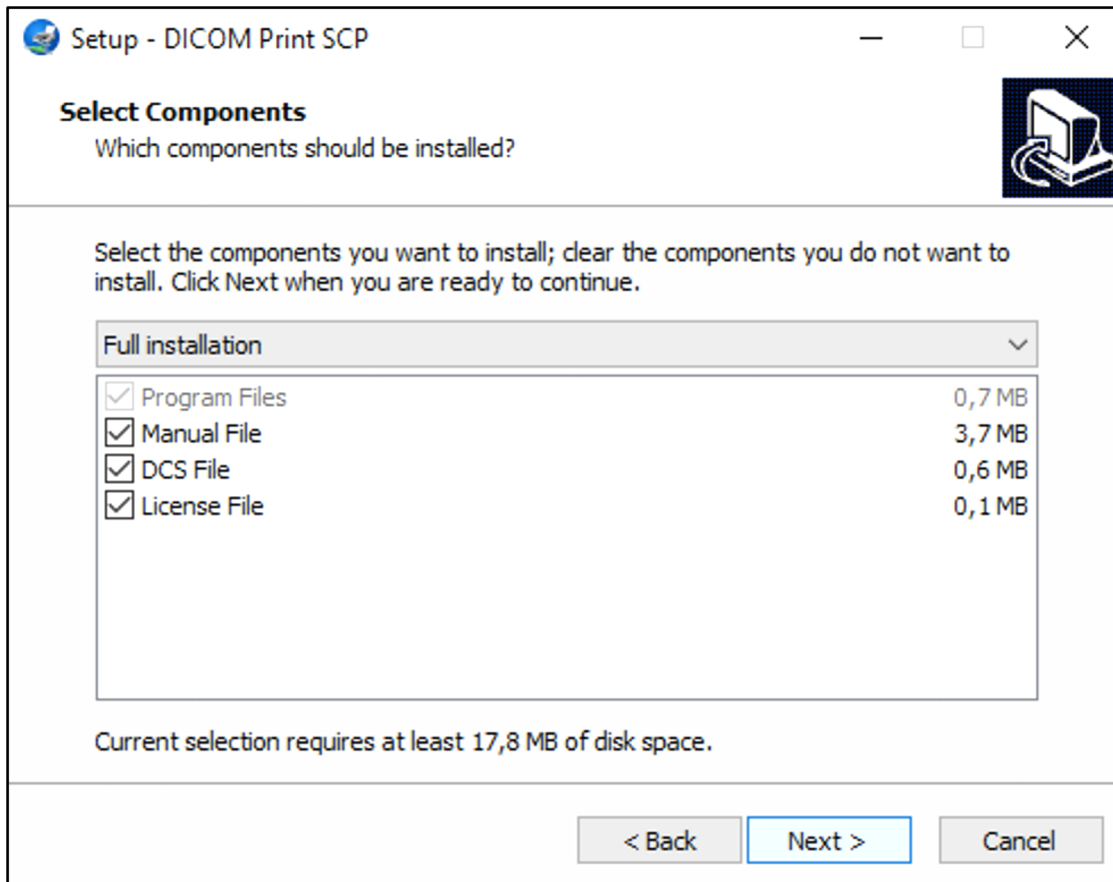


Select your favorite language then click "OK".

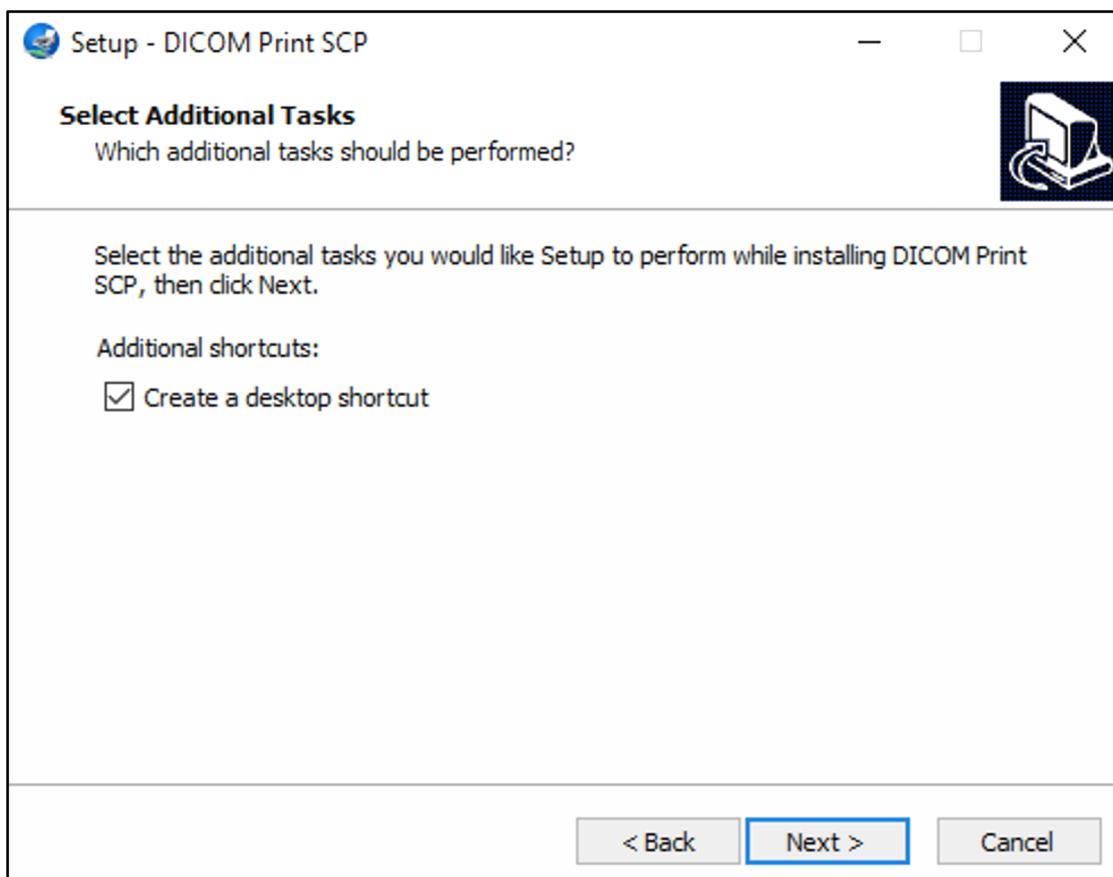
Trademark information is displayed.



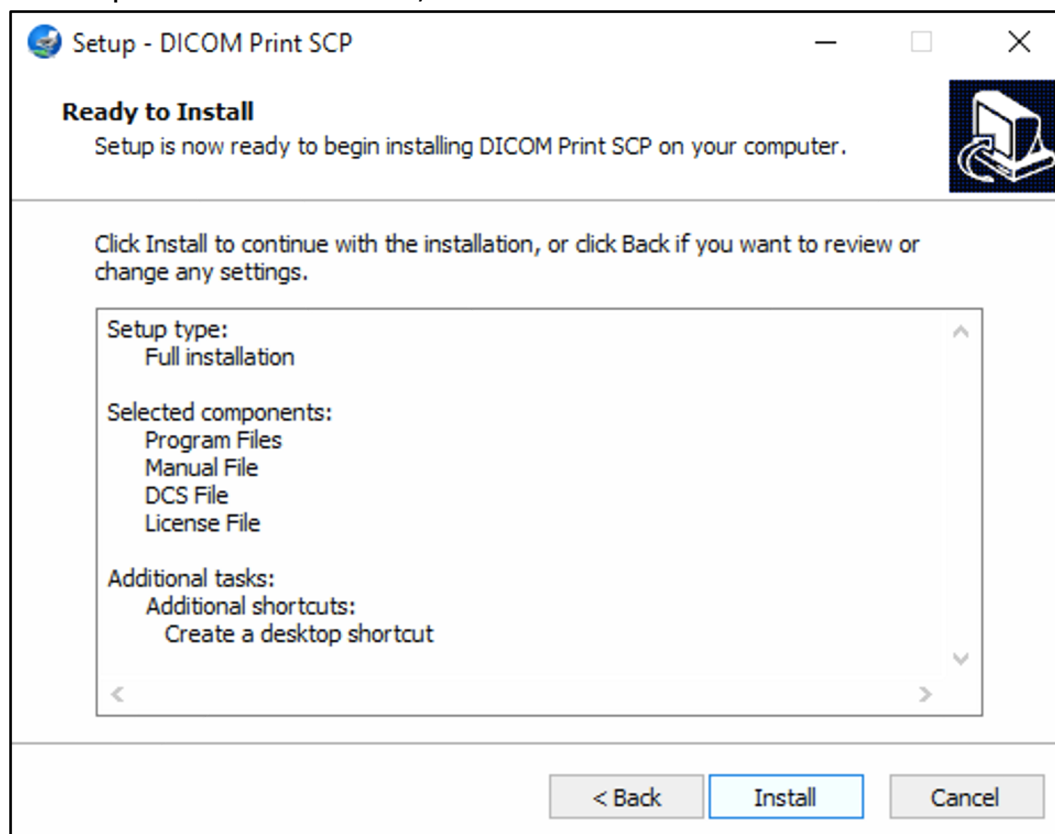
Read and accept the agreement then click on "Next",



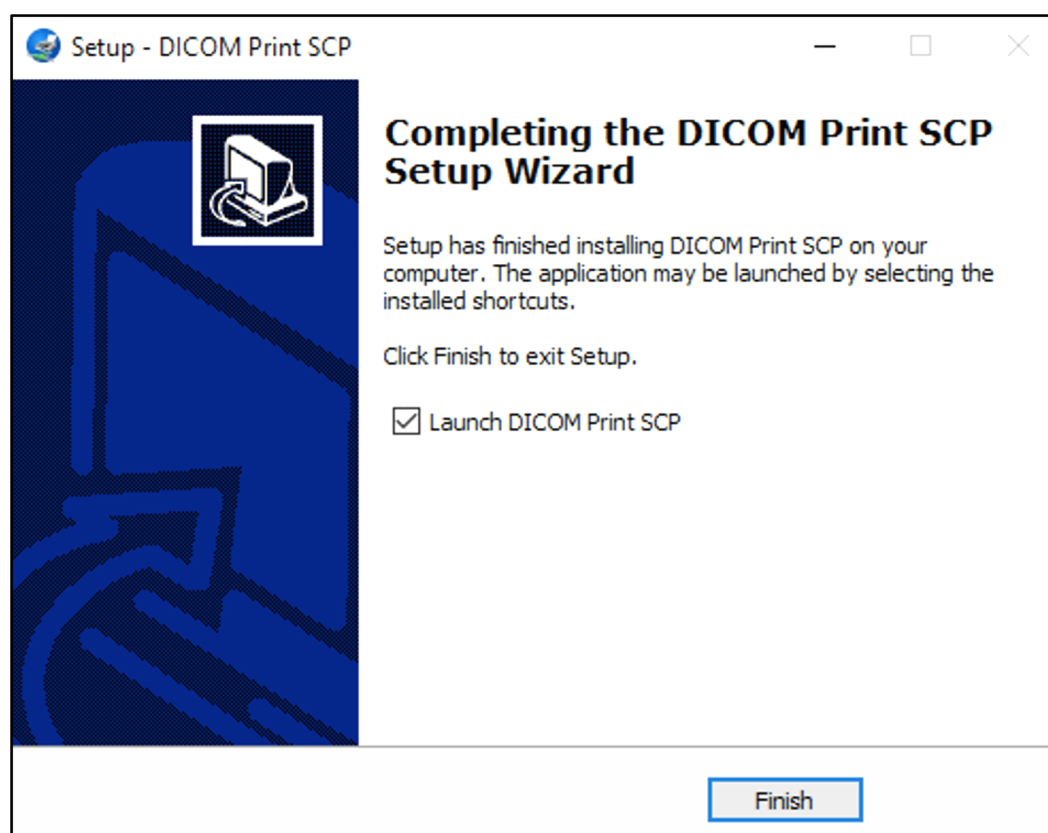
Select the components you want to install then Click on "Next",



Check "Create a desktop shortcut" If you want to add a shortcut on your desktop then Click "Next",



Click "Install"



Check "Launch MPS LIGHT" If you want to run MPS LIGHT Click "Finish",

RB3L MPS LIGHT is now installed on your PC

1-3 Start MPS LIGHT

Start MPS LIGHT by double click on the Desktop shortcut



Medical Print Server Light [Close]

DICOM Settings

DICOM Port: 104
Maximum PDU Size: 65536
Socket Timeout: 30
DIMSE Timeout: 180
Throttle (KB/s): 0
STR2PRN Timeout: 5

Medical Print Server Light [Stop] Auto Start

R B
3 L

[DICOM Log](#)

| AE Title | Printer | Tray | Preview | Contrast | Brightness | Gamma | Sharpness |
|----------|-------------------------|------|---------|----------|------------|-------|-----------|
| NEWAET | Xerox AltaLink C8135 PS | | True | 0 | 0 | 1 | 0 |

[Add Printer] [Delete] [Printer Settings] [License]

MPS LIGHT main form

DICOM Printer Settings

AE Title:

Printer: ...

Tray: ▾

Preview Only Colour Mode ▾

Printer Grayscale Profile

Header:

Image control

Contrast: ▾

Brightness: ▾

Gamma: ▾

Sharpness: ▾

MPS LIGHT Printer settings form

1-4 Options for MPS LIGHT main Form

The screenshot shows the 'Medical Print Server Light' application window. It features a 'DICOM Settings' panel on the left with six numbered dropdown menus (1-6) for configuring port, PDU size, timeouts, and throttle. On the right, there's a 'Medical Print Server Light' title bar with a 'Stop' button (7) and an 'Auto Start' checkbox (8). Below this is a 2x2 grid of buttons labeled 'R', 'B', '3', and 'L'. A 'DICOM Log' link (9) is positioned below the grid. The main area contains a table with columns for AE Title, Printer, Tray, Preview, Contrast, Brightness, Gamma, and Sharpness. The table lists one entry: 'NEWAET' (10) on a 'Xerox AltaLink C8135 PS' printer. At the bottom, there are four buttons: 'Add Printer' (11), 'Delete' (12), 'Printer Settings', and 'License' (13).

| AE Title | Printer | Tray | Preview | Contrast | Brightness | Gamma | Sharpness |
|------------------|-------------------------|------|---------|----------|------------|-------|-----------|
| NEWAET 10 | Xerox AltaLink C8135 PS | | True | 0 | 0 | 1 | 0 |

Main interface option

1-5 Options for MPS LIGHT main form (Description)

RB3L MPS LIGHT print rules represented by the AET (Application Entity Title) will be listed in the main interface. You can create as many rules you want to match your requirements.

(1) DICOM Port:

This function is used to define the input DICOM Port from 0 to 65535. The values must be an integer.

As default, [**104**] is defined.

Note: • if you set a DICOM port, you must Quit and restart RB3L MPS LIGHT to apply the new input DICOM port

(2) Maximum PDU size:

The "Maximum PDU size" is part of the association negotiation procedure that

takes place at the start of each DICOM network connection (association).

As default, [**65536**] is defined.

(3) Socket Timeout:

A socket timeout is dedicated to monitor the continuous incoming data flow.

As default, [**30**] is defined.

(4) DIMSE Timeout:

The timeout in seconds for receiving DIMSE-RSP on an open association..

As default, [**180**] is defined.

(5) Throttle:

Throttle (KB/s):

This function is used to regulate the flow.
As default, [0] is defined.

(6) STR2PRN Timeout:

STR2PRN Timeout:

The timeout in seconds for receiving images using DICOM Store protocol before starting to print them.
As default, [5] is defined.

(7) Start/Stop:

This function is used to start and stop the MPS LIGHT server.

Note: • You must stop the MPS LIGHT server to add, delete or edit a Printer rule.

- To exit and close the MPS LIGHT you must stop the server first, if not, it will hide MPS LIGHT in Windows system tray

(8) Auto Start:

Auto Start

When checked, this function is used to start MPS LIGHT at Windows Logon,

(9) DICOM Log:

[DICOM Log](#)

This function is used to display the DICOM dialogue logs during printing. This is useful for identifying the source of an error in the event of problems.

(10) AE Title List:

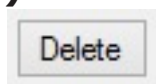
| AE Title | Printer | Tray | Preview | Contrast | Brightness | Gamma | Sharpness |
|----------|--------------------|------|---------|----------|------------|-------|-----------|
| A4-NB | RICOH SP C840DN PS | | False | 1 | 2 | 1,21 | 2 |
| A3-NB | RICOH SP C840DN PS | | False | 1 | 2 | 1,21 | 2 |

This is used to display the AE Title list and rules used for each of them.

(11) Add Printer:

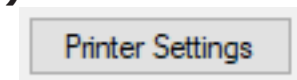
This function is used to add a new printer rule in the AE Title List and to define the settings rules.

Note: • You must stop the MPS LIGHT server to add, delete or edit a AE Title rule.

(12) Delete:

This function is used when you want to delete and remove a printer rule from the printer list.

Note: • You must stop the MPS LIGHT server to add, delete or edit a AE Title rule.

(13) Printer Settings:

This function is used to edit a Printer rule.

Note: • You must stop the MPS LIGHT server to add, delete or edit a AE Title rule.

1-6 Options for MPS LIGHT AE Title Settings form

DICOM Printer Settings

1 AE Title:

2 Printer: 3...

4 Tray:

5 Preview Only 6 Colour Mode:

7 Printer Grayscale Profile:

8 Header:

Image control

Contrast: 9

Brightness: 10

Gamma: 11

Sharpness: 12

OK Cancel

13 14

MPS LIGHT Printer Settings form

1-7 Options for MPS LIGHT AE Title Settings form (Description)

(1) AE Title:

AE Title:

AET is an abbreviation for Application Entity Title. The call method is assumed to be compliant with DICOM Print SCU Protocol.

The AETs defined in this rule have a maximum length of 16 characters (a - z, A - Z, 0 - 9).

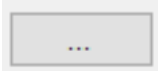
Note: • The names are case-sensitive.

(2) Printer:

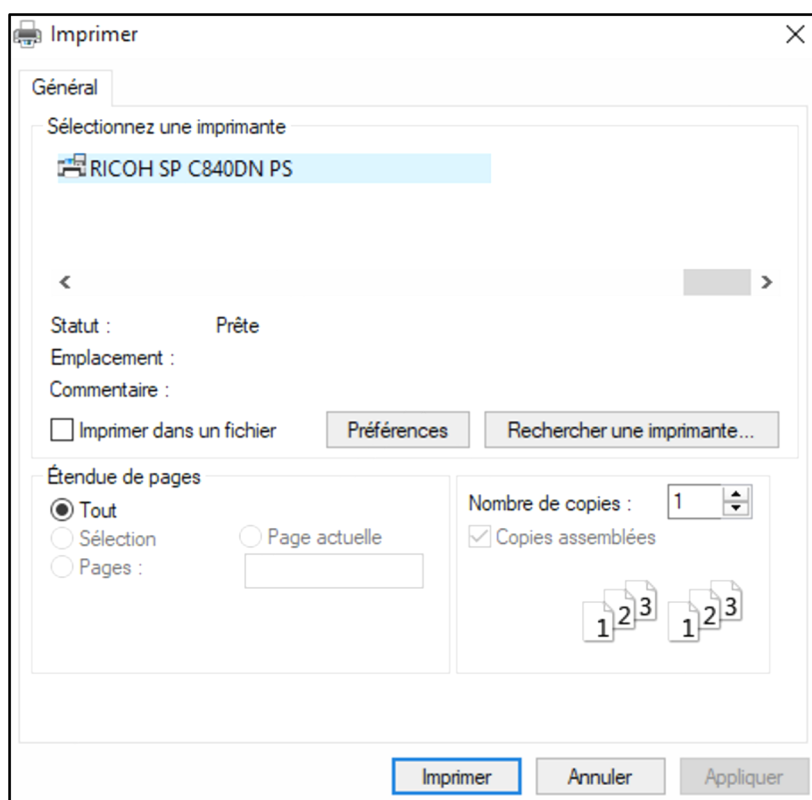
Printer:

This function display the selected Windows Printer.

(3) Select Printer:



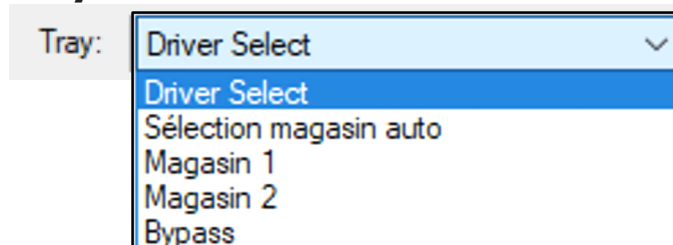
This function is used to select and define the Printer or MFP that RB3L MPS LIGHT will use to print DICOM requests.



Select your Printer or MFP and then Click [**OK**]

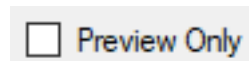
Note: • You must use an Printer or MFP Printer installed on your Windows based PC using Network interface. Please refer to the Setup Guide/User's Guide/Network Guide supplied on CD/DVD with the printer.

(4) Tray:



Forces the printer to use the selected tray regardless of the needed format.

(5) Preview Only:



This function is used to activate preview mode of printing page.

(6) Color Mode:

Define the level of action of the filter,

Choice are [Automatic], [Color] and [Monochrome]

[Automatic], Define printing Color image in CMYK and monochrome image in K only.

[Color] Define printing all images in CMYK.

[Monochrome] Define printing all images in K only.

(7) Printer Grayscale Profile:

This function is designed to select and download dedicated printer LUT for printing Monochrome images.

Once enabled, if the modality images are sent in Monochrome, MPS Light will apply this LUT to the printer driver to get a printout matching this LUT rendering.

(8) Header:

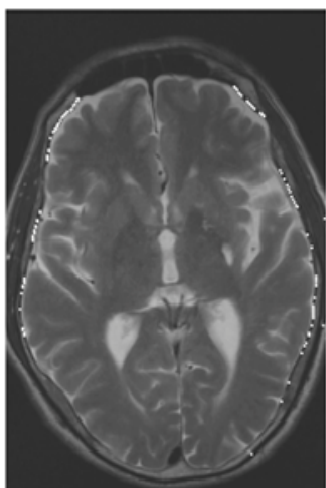
This function is used to quickly customize the header of your printouts.

This customization is limited to one line of text only. Typeface is Palatino at 12 points size, length available is the width of the page minus 10mm.

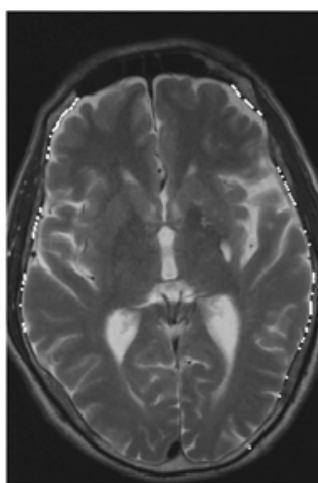
(9) Contrast:



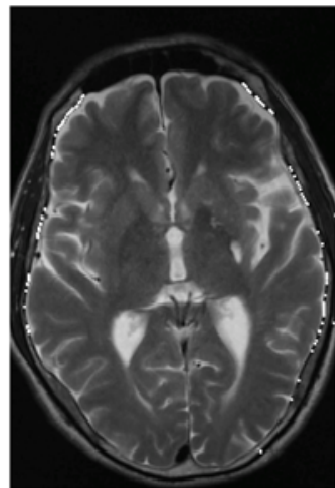
This function is used to change the level of contrast of the printouts. The choices are from **[-10]** to **[+10]**. Negative values reduce contrast to flatten the image, 0 doesn't change the level of contrast, and positive values increase contrast to enhance the image.



Contrast: -5



Contrast: 0



Contrast: +5

(10) Brightness:



This function is used to change the level of brightness of the printouts. The choices are from **[-10]** to **[+10]**. Negative values reduce light to darken the image, 0 doesn't change the level of brightness, and positive values increase light to lighten the image.



Brightness: -5



Brightness: 0



Brightness: +5

(11) Gamma:

This function is used to adjust the gamma for images. Values can be within a range from 0.01 to 3.0, in increments of 0.01. Values below 1.00 will lighten the Black component of the image, and values above 1.00 will darken it.

As default, [1.0] is defined



Gamma : 0,70



Gamma : 1.0



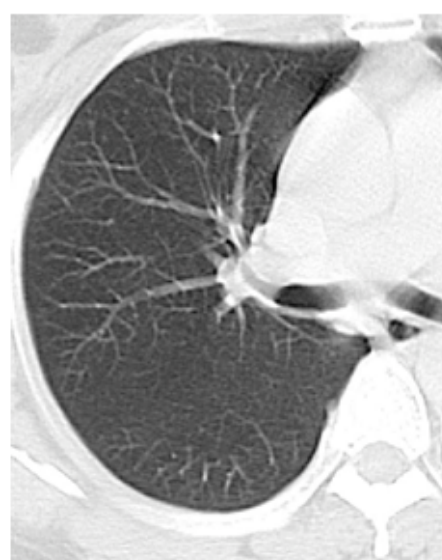
Gamma : 1.7

(12) Sharpness:

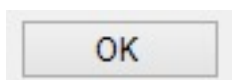
This function is used to define the aspect rendering of the printed image. The choices are from [1] to [4].



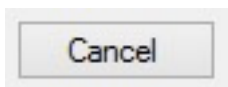
Sharpness level [0]



Sharpness level [2]

(13) OK:

When you have finished editing the values, save the settings by clicking [OK]

(14) Cancel.

Click [CANCEL] to close and discard the Printer settings form

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