

# CharruaSoft S.A.

User Manual  
PrintSCP User Manual\_en

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## User Manual

## PrintSCP

Developed by:

**CharruaSoft**

<http://www.charruasoft.com>

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## 1. Introduction

With **PrintSCP** expensive Film printing can be replaced by Windows paper printing. Now it's easy and simple to provide patients and referring physicians with hardcopies of their studies. **PrintSCP** is a DICOM Print Server; it receives images from DICOM modalities and prints them in a Windows paper printer. It is a high quality DICOM printing solution that can render photographic quality Color or Grayscale images on paper.

**PrintSCP** can handle multiple simultaneous associations, and log all the network exchange for analysis purposes. It has an extensive calibration process that allows matching precisely Display Monitor and Paper Printout for each modality. The printed page header and footer can be customized with the client's name.

**PrintSCP** supports both DICOM Print and DICOM Store protocols. Presentation LUT option is also supported, but a calibration file for the required printer has to be created. Images can be printed True Size selecting the corresponding option.

## 2. Computer Platform

- Windows 7 or Windows 10. (32 or 64 bits)
- Intel i3, i5 or i7 processor.
- 4 GBytes RAM.
- 500 GBytes HDD.

## 3. Software installation

### Software installation:

1. Download the Installer from <http://charruasoft.com/products/printscp/index.php>
2. Unzip the ZIP file downloaded.

3. Run printscp\_install.exe
4. Follow the Wizard to correctly install the software.

**Note:** It is suggested to install the Software in the path recommended in the installation Wizard (C:\CharruaSoft).

## 4. PrintSCP Functionality

### 4.1 Main Window



*Figure 1. Main Window*

After the installation is completed, the main window will appear. You must go to the Setup tab to configure the printers that will print the study. The “About” window will display the actual print count.

## 4.2 Setup

### 4.2.1 General

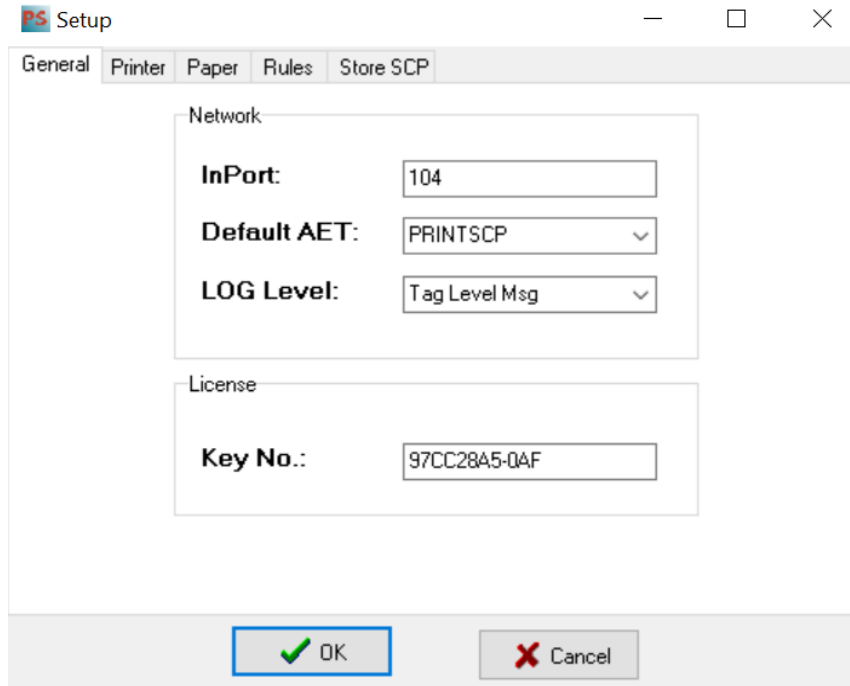


Figure 2. Setup Window

The installation process is very simple and it's very easy to use and setup.

**InPort:** is the TCP/IP Port for the PrintSCP server.

**Default AET:** is the printer used by default.

**LOG Level:** allows choosing a debugging level for logging.

Options:

- Only Error LOG, saves only errors.
- High Level Msg, saves some information on the printing process.
- Tag Level Msg, saves all DICOM tags exchanged in the association.

**Key No.:** A licensing key for activating the application. The Serial Number for this computer will be saved in the `printscp_register.txt` once the application is run for the first time.

## 4.2.2 Printer

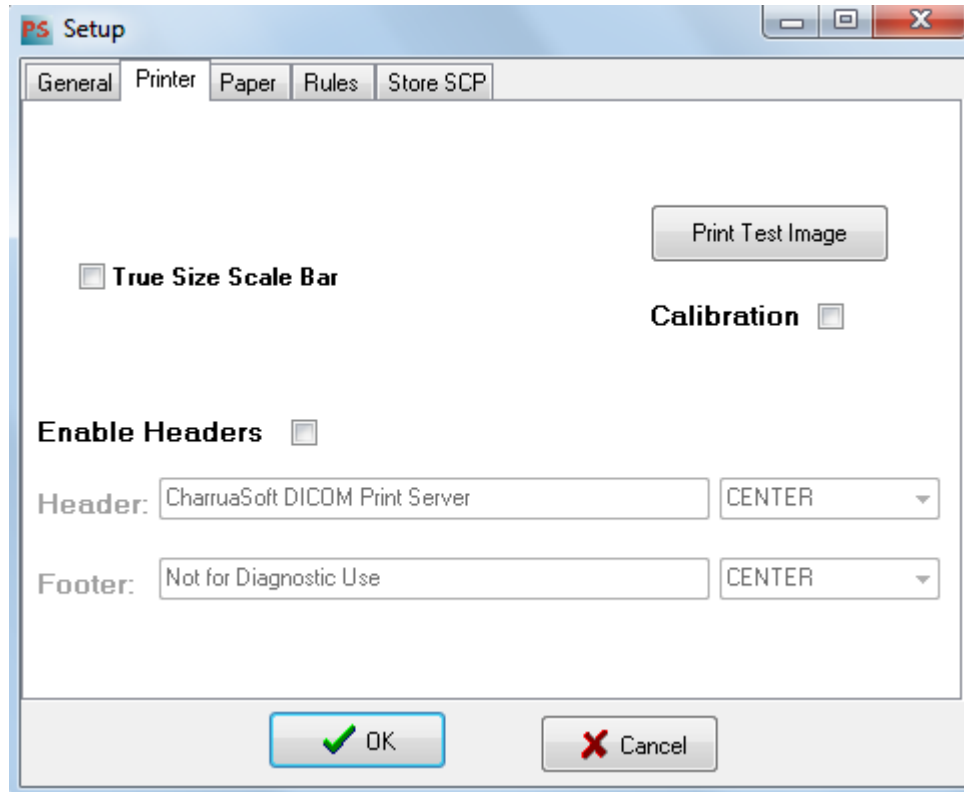


Figure 2. Printer Setup

**True Size Scale Bar:** if the print petition is True Size, it will print a scale bar.

**Print Test Image button:** Prints a calibration image for adjusting values.

**Calibration Checkbox:** When this option is checked, sending an image for printing from any modality will print a 3x3 matrix varying gamma and contrast.

**Enable Headers CheckBox:** Enables/Disables Header/Footer option.

**Header:** Page Header (can only be set on the licensed applications).

**Footer:** Page Footer.

If there is a "header.bmp" or "footer.bmp" in the application folder this will be used by default instead of the text here.

## 4.2.3 Paper

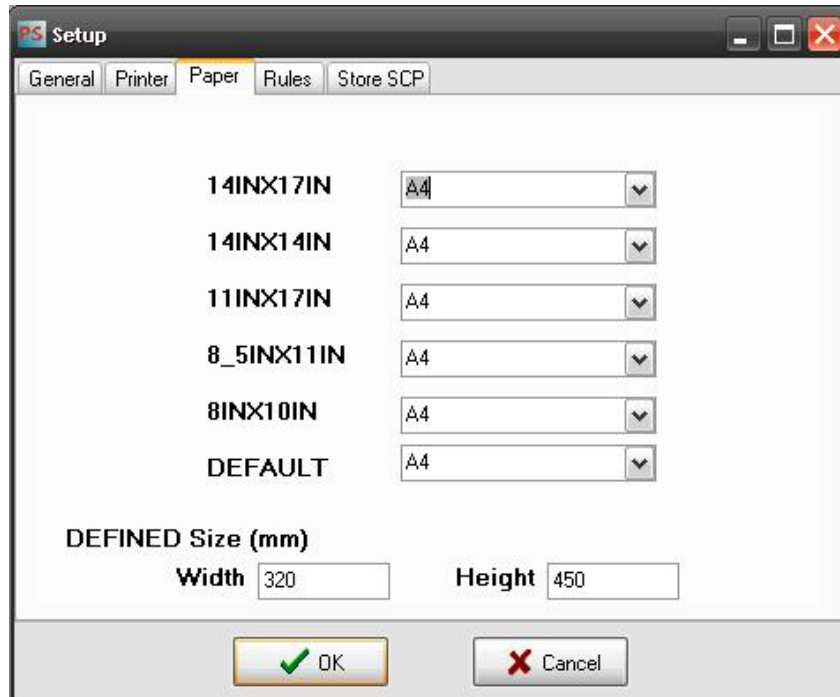


Figure 3. Paper Setup

In this page the relation between Film Size and Paper size can be set. Any of the pre-defined Film Size ID can be set to be printed on any paper size, only if this paper size is available for the selected printer driver.

## 4.2.4 Rules

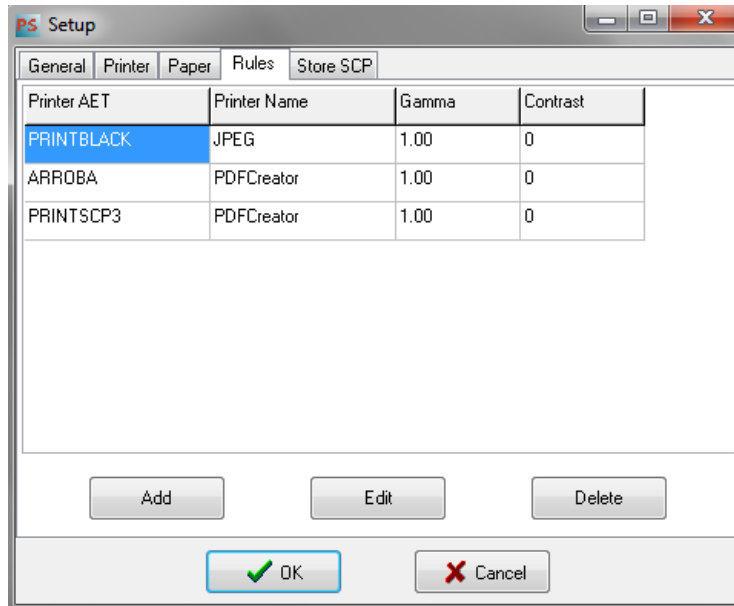


Figure 4. Printer Rules Setup

**PrintSCP** has a flexible system of printing rules, any number of printers can be added, and for each printer rule there are several parameters that can be set.

Clicking on Add or Edit will open the configuration window:

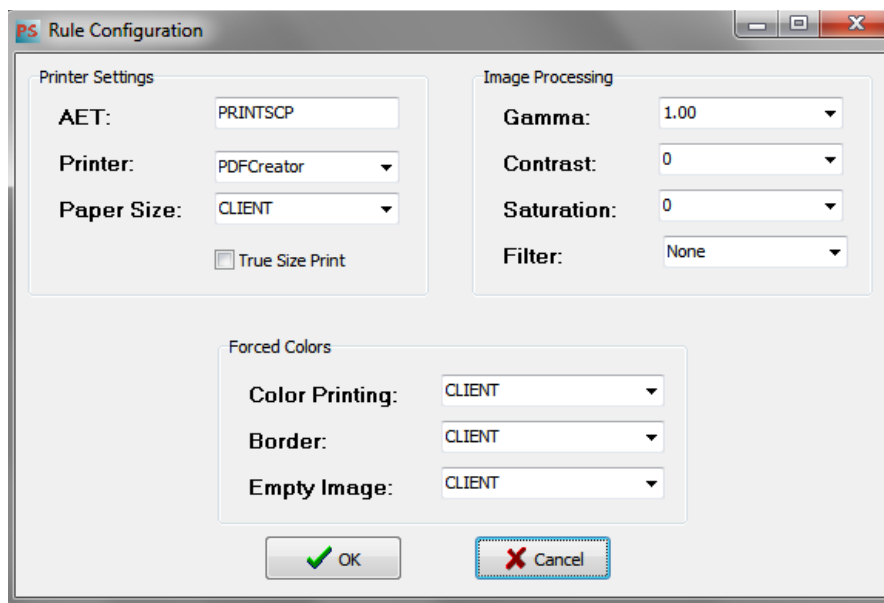


Figure 5. Rules Detail

## **Printer Settings**

**AET:** is the printer Application Entity Title.

**Name:** is Windows printer name, there is a JPEG printer that will create images on a filmbox folder under the application folder.

**Paper Size:** Client will use the paper tab conversion; otherwise it will use the selected paper size.

**True Size CheckBox:** Checking this box will allow to print images in true size form if the sending application supports this option.

## **Image Processing**

**Gamma Value:** values lower than 1.00 darkens the image, values higher than 1.00 lighten the image.

**Contrast:** values higher than 0 will give higher contrast, values lower than 0 will give lower contrast.

**Saturation:** This will only work for color images. It changes the image saturation level.

**Filter:** It will apply a sharpen or smooth filter to the image.

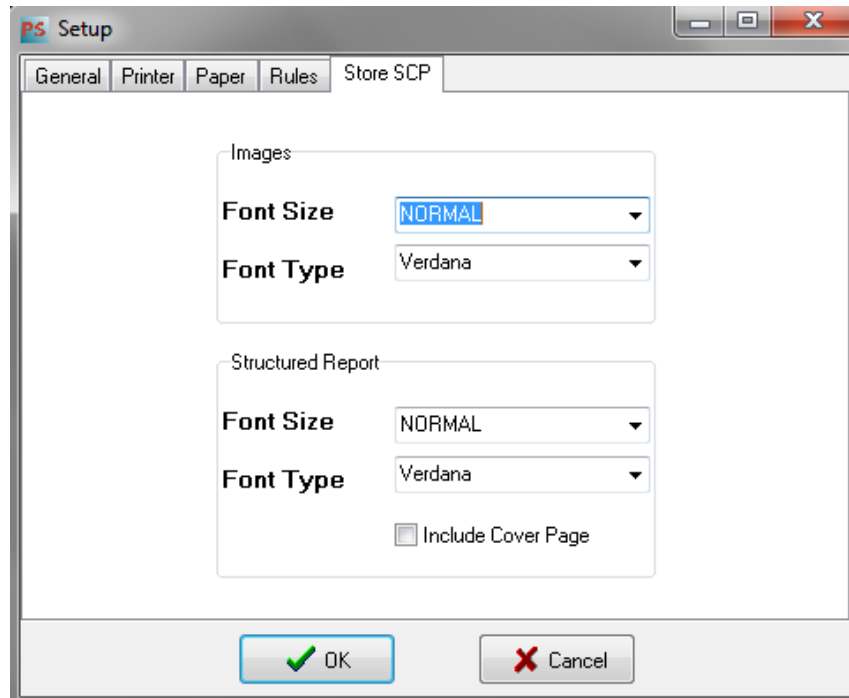
## **Forced Colors**

**Color Printing:** Options are CLIENT, COLOR, B&W or DRIVER.

**Border:** will set Film Border to CLIENT, BLACK or WHITE.

**Empty Image:** Options are CLIENT, BLACK, or WHITE.

#### 4.2.5 Store SCP



*Figure 6. Store SCP Setup*

As this version supports DICOM Store SCP service, in this page the Font Size and Font Type for both Images and DICOM Structured reports can be selected.

A Cover page can be included for SR checking on the “Include Cover Page” checkbox.

## 5. Contact

For any comments or suggestions about this manual, or to ask more information about PrintSCP, please contact CharruaSoft at:

[info@charruasoft.com](mailto:info@charruasoft.com)  
<http://www.charruasoft.com>

**6. Control de cambios del documento**

<b>Version</b>	<b>Date</b>	<b>Change performed by:</b>	<b>Description</b>
2.1	21/05/2019	Rafael Sanguinetti	Changes related to the location of the serial number.