



# **Graphic Elements Creation Manual for DICOM Embedded Printer**

**Common to OKI DICOM Embedded Printer Version 4 Series**

**C610 DICOM**

**C711 DICOM**

**C831 DICOM**

**C910 DICOM**

**C911 DICOM**

**C931 DICOM**

**ES6410 DICOM**

**ES7411 DICOM**

**ES8431 DICOM**

**ES9410 DICOM**

**ES9411 DICOM**

**ES9431 DICOM**

**Pro9431 DICOM**

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# 1 How it works

To give the needed flexibility to Users, Resellers, and OPCO's in creating a Logo or a front and back page, the best solution is to allow usage of whatever Computer editing software they own for text/graphics edition.

Mixing this graphic work with the DICOM printout is based on PostScript forms.

Creation/design can be made with whatever software you want using the standard PS printer driver and asking for form creation in the advanced setting. Refer to the standard printer manual.

The created files can be packaged and downloaded to the printer with OKI free software: "Storage Device Manager" or "Configuration Tool".

## 2 Recommendations

Resolution of the Artwork:

Each time a printout is made using the "Header Logo" function, the header Logo file is computed in addition to the DICOM printing.

Therefore, be careful not to put a too high resolution Logo in the Header.

It is very easy to resize a high resolution logo to the adequate size in any page publishing program, but resizing doesn't resample the image to remove the useless details. Sometimes, just resizing will produce a very high resolution logo file which will be processor consuming at printout time. If you notice a sensible loss in performance when you print with Logo Header option, you certainly produced a too high resolution file for the purpose.

We recommend using Graphics at a resolution between 200 and 300dpi at 1:1 scale.

## 3 Limitations

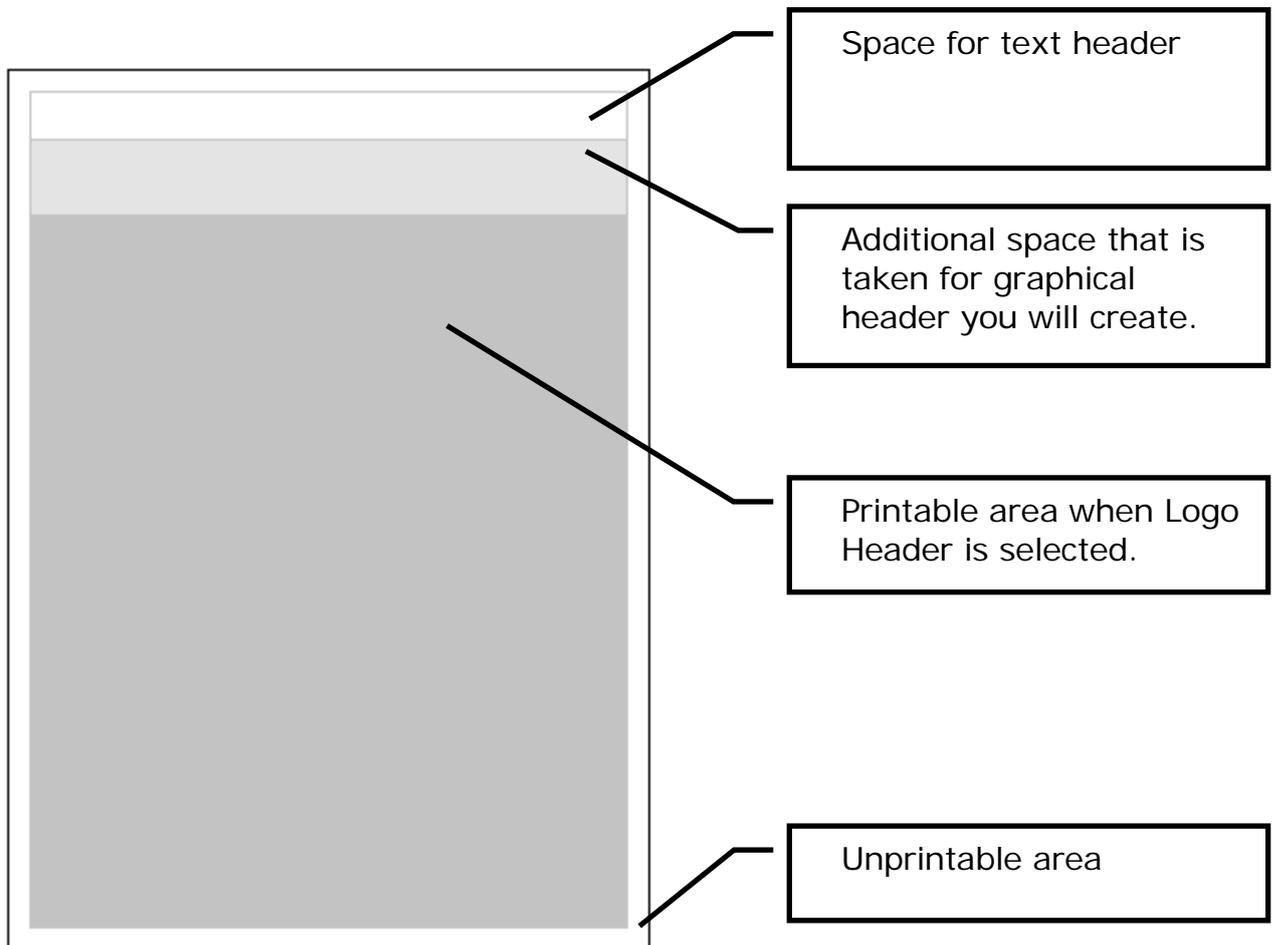
You need to use a MS Windows computer as the Storage Device Manager and Configuration Tool are only available for this platform.

You need to install the PostScript driver for your printer.

Only one form for the header or for the booklet is available for one paper format in one printer.

## 4 Header Page Layout

A space for text header is reserved at the top of the page. This space is increased in case of use of graphical "Logo Header".



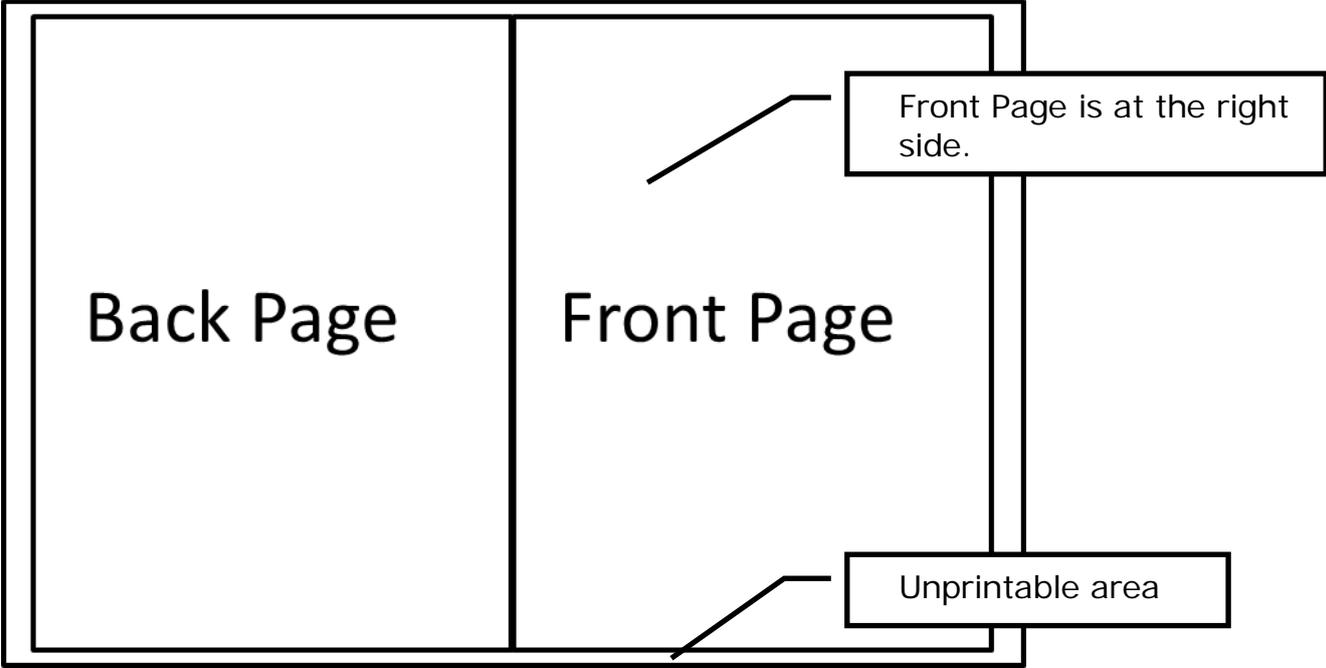
The reserved space on the DICOM page for the logo is always at the top of the A4/Letter or A3/Tabloid format.

The DICOM print area begins one inch (25.4mm) below the paper edge.

The unprintable area is 5mm around the page thus the remaining space is 20.4mm for the Logo and/or text. If you want to have an equilibrated spacing with the DICOM maximum area printout, we recommend creating a 15 to 16mm height artwork starting at 5mm from top of page.

# 5 Booklet Page Layout

The Space for booklet cover and back page is a whole A4 or A3 page.  
The medical image is printed on the other side. Once folded, you get A5 or A4 booklet.



The unprintable area is 5mm around the page and all the remaining space is free for customization.

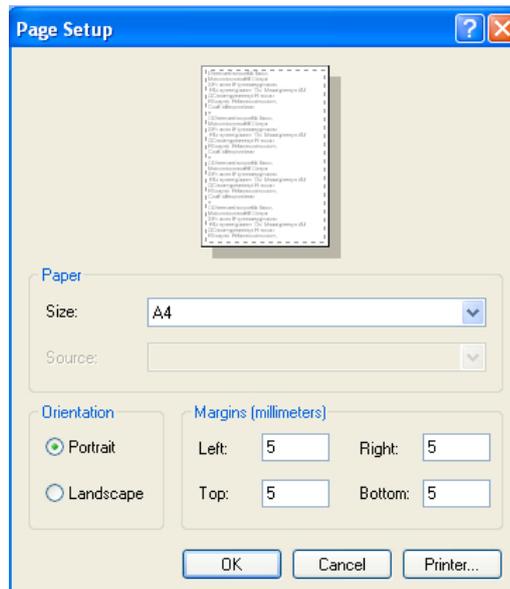
## 6 Using MS WordPad or MS Word for Headers

Open a new document in MS WordPad or MS Word.

First step is to select the paper format you want to produce accordingly with the format you want to DICOM print with the header.

- 1) Set the paper format to desired size A4, Letter, A3 or Tabloid.
- 2) Keep the page orientation in Portrait even if you intend to produce Landscape DICOM printouts.
- 3) Adjust the margins for the printer printable area to 5 mm each side.

Page format margins

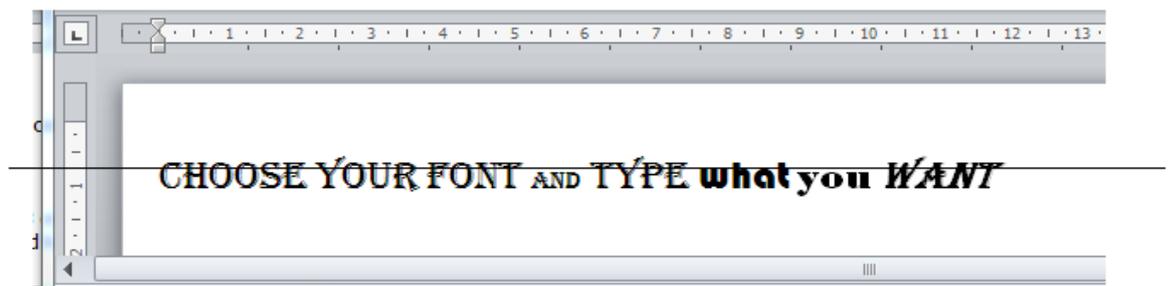


- 4) Type text and/or paste your logo in the upper part of the page.

Tips:

Reduce the MS Word window to show only the available area (align with the 2cm rule graduation).

Use the 0.75cm sub graduation to visualize the horizontal axis of the free area.



5) You have completed your Header creation.



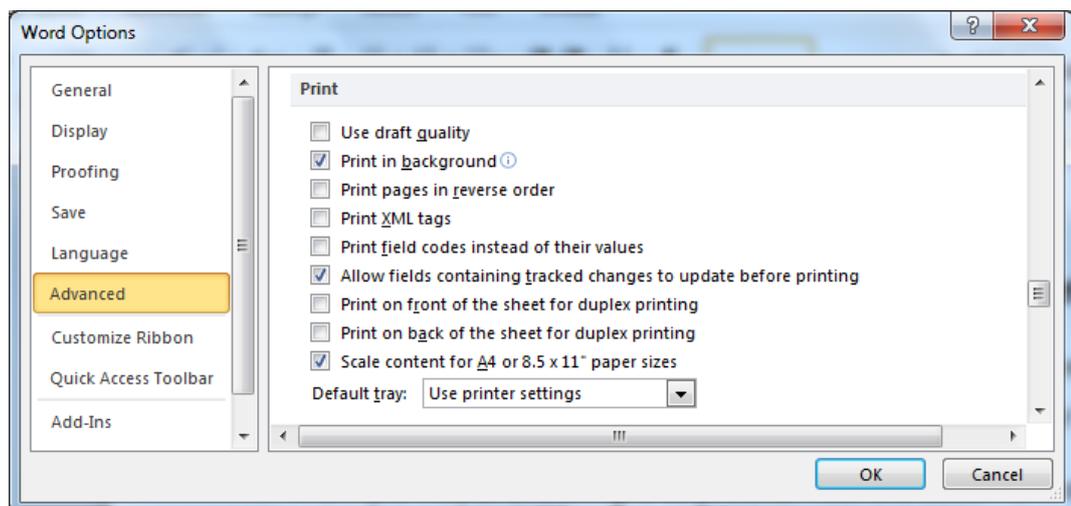
You can check it by printing on paper. Once OK, you will need to produce the form file for the printer.

You may get difficulties in creating A4/Letter document with the latest MS Word. The reason is that Office changes the print format automatically up to your computer regional settings.

A simple way of checking is to print for real the document on the destination printer.

If the print is OK, then you only need to adjust your document. If the printer asks for Letter when you print an A4 document (or vice versa), you need to proceed through the following steps.

Open: File/options

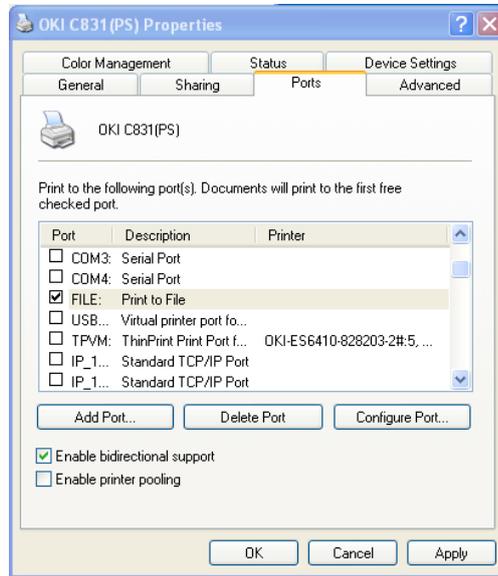


Deselect "Scale content for A4 or 8.5x11" paper sizes".

6) Print to file option.

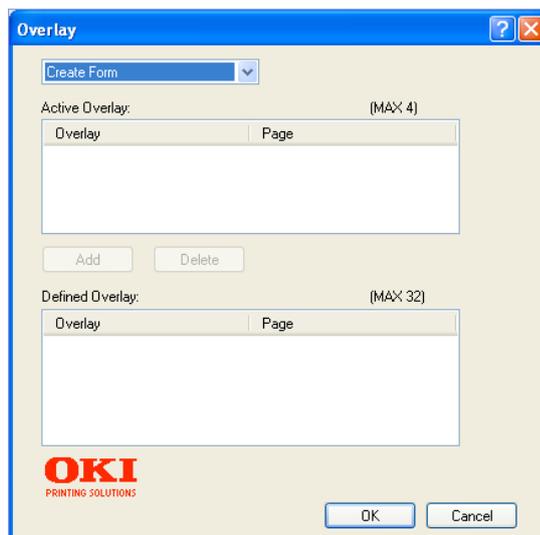
Up to the version of Windows and Office you use you may have to setup the driver for printing into File.

Open the Configuration Panel and edit the PS printer properties. Then in the "Ports" Tab, select File and apply.

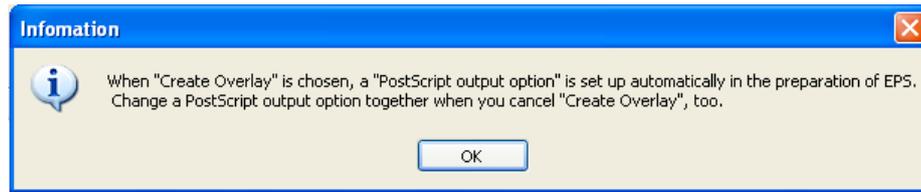


7) Set up the PostScript printer driver for forms creation.

In the print dialog from Word, open Printer Settings. Then Job Option Tab and click on "Overlay" button. Select "Create Form".



You should get a warning popup.



Apply and close Printer setting dialog.

8) Print to generate the file.

Print your job.

A popup window will appear asking you for the file name you want to use.

Use full path naming for saving i.e. "C:\Dicomheaders\Header-A4.hst".

Names should be:

**Header-A4.hst**, for A4 paper

**Header-A3.hst**, for A3 paper

**Header-Letter.hst** for Letter paper

**Header-Tabloid.hst** for the Tabloid paper

**Header-A3Nobi.hst** for the A3 NOBI paper (328x453 mm)

The following formats are not possible in MS word, see next page of this document how to work them with MS PowerPoint:

**Header-215X900.hst** for the 215 x 900 mm paper

**Header-215X1200.hst** for the 215 x 1200 mm paper

**Header-297X900.hst** for the 297 x 900 mm paper

**Header-297X1200.hst** for the 297 x 1200 mm paper

**Header-328X900.hst** for the 328 x 900 mm paper

**Header-328X1200.hst** for the 328 x 1200 mm paper

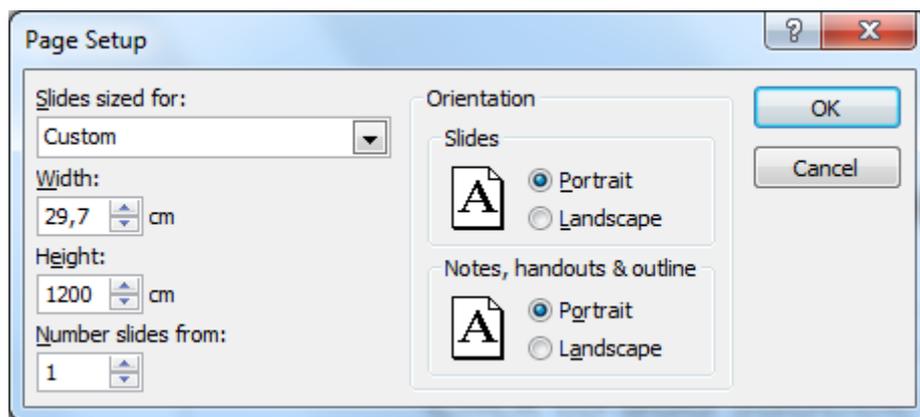
## 7 Using MS PowerPoint to create Headers

As you may have noticed MS Word is limited in format and can't handle "banner" sizes having dimension over 55.87 cm.

Open a new document in MS PowerPoint.

First step is to select the paper format you want to produce accordingly with the format you want to DICOM print with the header.

- 1) In Design, Page Setup Set the paper format to desired size.

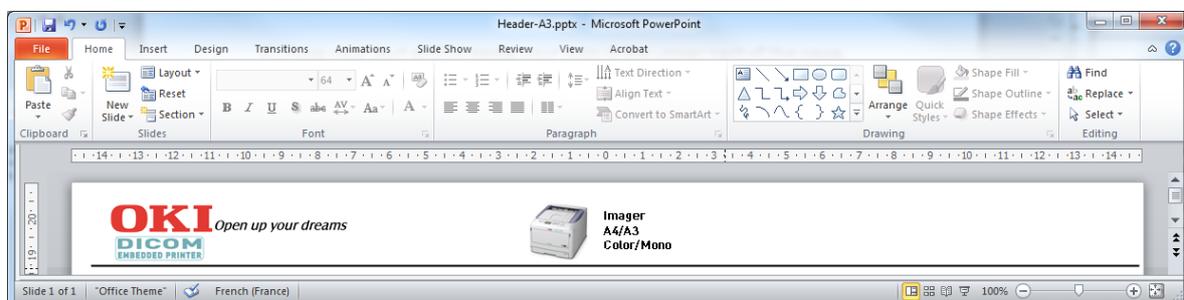


- 2) Keep the page orientation in Portrait even if you intend to produce Landscape DICOM printouts.

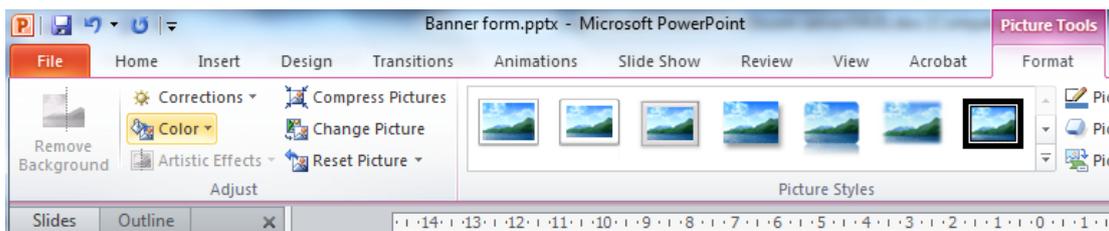
- 3) Type text and/or paste your logo in the upper part of the page.

Tips:

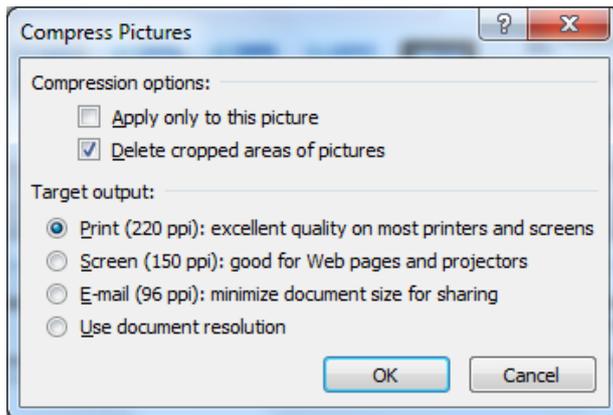
Reduce the MS PowerPoint window to show only the available area (align at 2.5 cm from top graduation).



4) Open the picture tool window in PowerPoint.

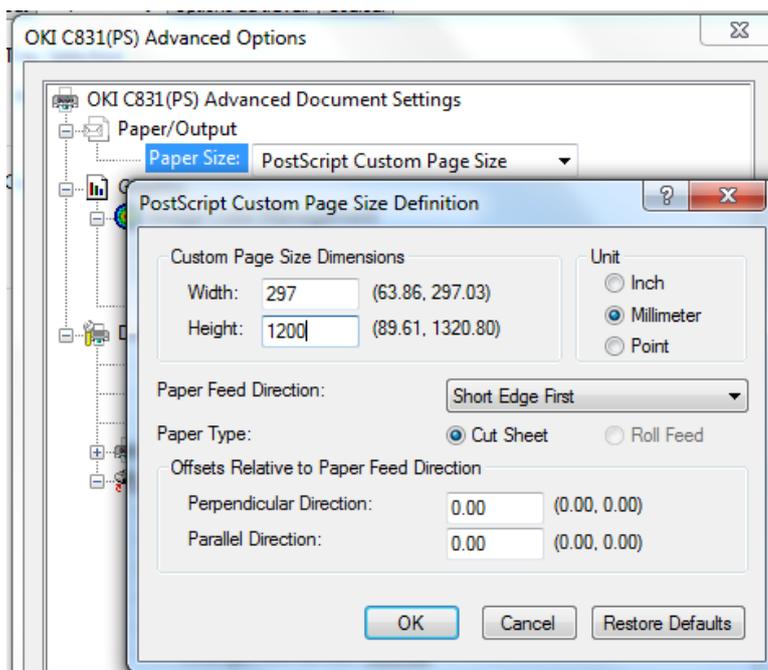


Select the compress picture tool.



Use the above settings or 150 ppi to reduce the size of your graphic elements for better printing speed, and click OK.

5) Before printing, specify the custom paper format in the printer advanced settings.



6) Follow naming scheme of your files as per following:

**Header-A4.hst**, for A4 paper (210x297 mm)

**Header-A3.hst**, for A3 paper(297x420 mm)

**Header-Letter.hst** for Letter paper (215x279 mm)

**Header-Tabloid.hst** for the Tabloid paper (279x432 mm)

**Header-A3Nobi.hst** for the A3 NOBI paper (328x453 mm)

**Header-215X900.hst** for the 215 x 900 mm paper

**Header-215X1200.hst** for the 215 x 1200 mm paper

**Header-297X900.hst** for the 297 x 900 mm paper

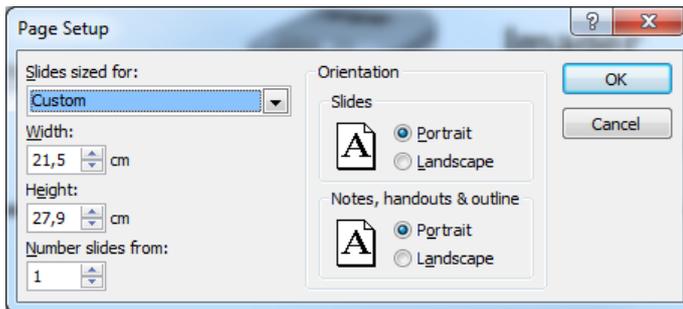
**Header-297X1200.hst** for the 297 x 1200 mm paper

**Header-328X900.hst** for the 328 x 900 mm paper

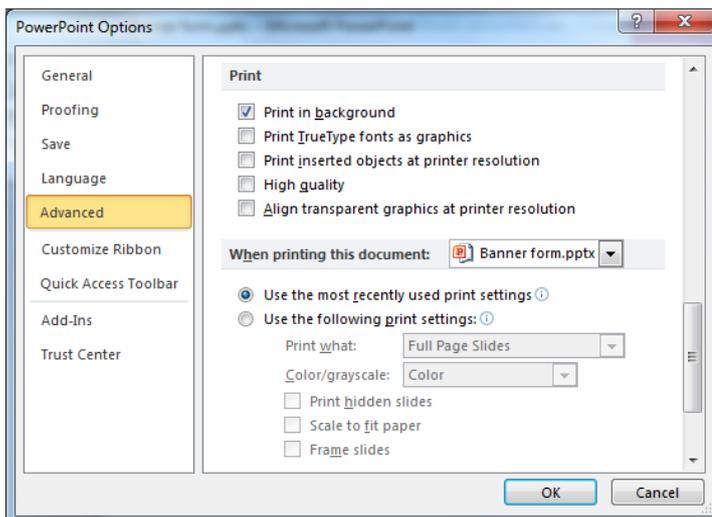
**Header-328X1200.hst** for the 328 x 1200 mm paper

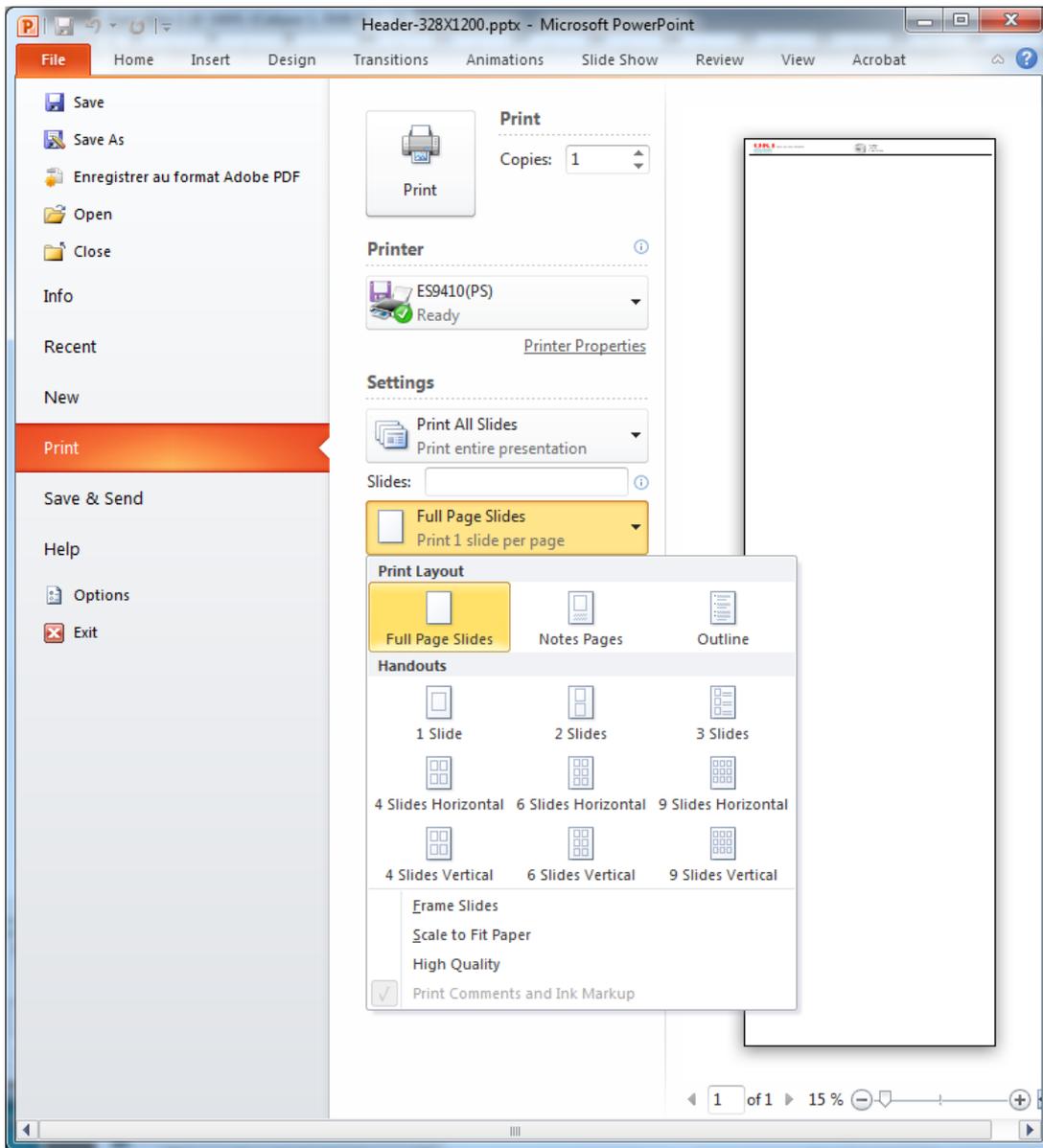
*Be careful when creating the document to always use custom format in PowerPoint even for already defined paper size.*

i.e. for Letter create page as custom:



Also make sure that the scale to fit paper option is disabled in both dialogs:



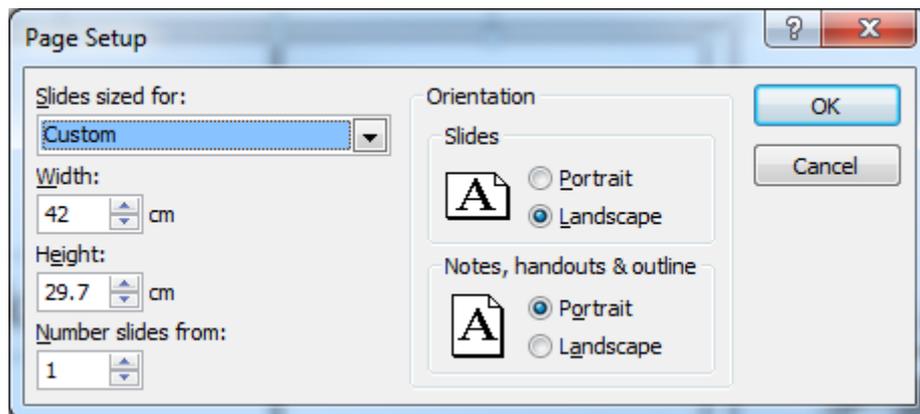


## 8 Using MS PowerPoint to create Booklet forms

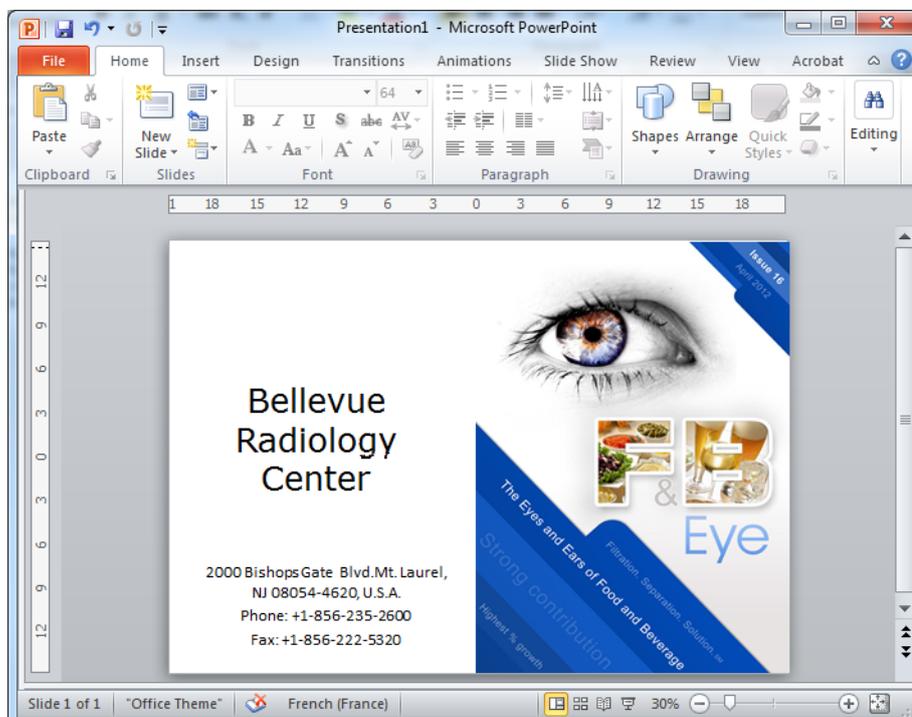
Open a new document in MS PowerPoint.

First step is to select the paper format you want to produce accordingly with the paper format you want to use for the Booklet, A3, A4, Tabloid or Letter.

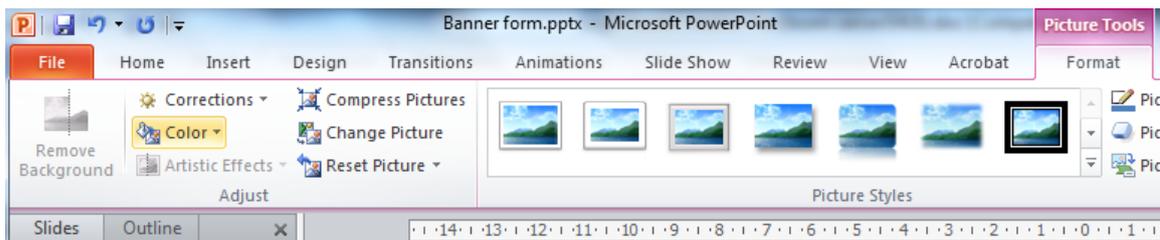
- 1) In Design, Page Setup Set the paper format to desired size. Always use custom to be sure to have access to the whole area for design. Orientation is Landscape.



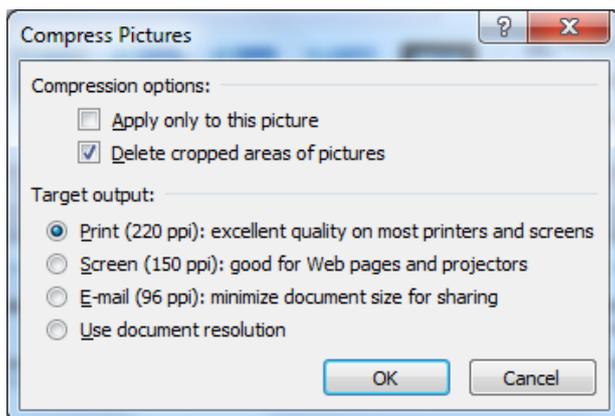
- 2) Make your design.



3) Open the picture tool window in PowerPoint.

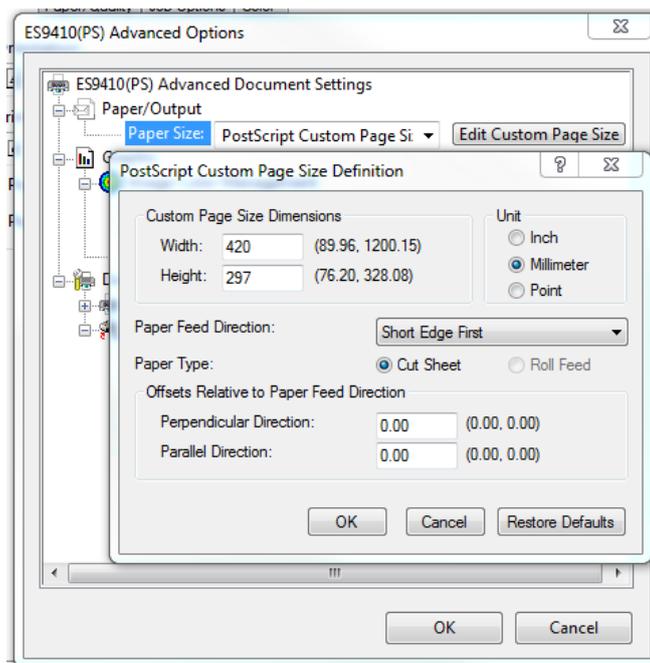


Select the compress picture tool.



Use the above settings or 150 ppi to reduce the size of your graphic elements for better printing speed, and click OK.

4) Before printing, specify the custom paper format in the printer advanced settings.



5) Save your artwork under one of the following names.

**Booklet-A4.hst**, for A4 paper (210x297 mm)

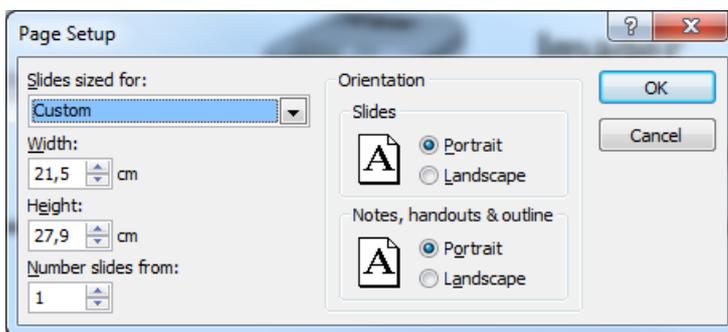
**Booklet -A3.hst**, for A3 paper (297x420 mm)

**Booklet -Letter.hst** for Letter paper (215x279 mm)

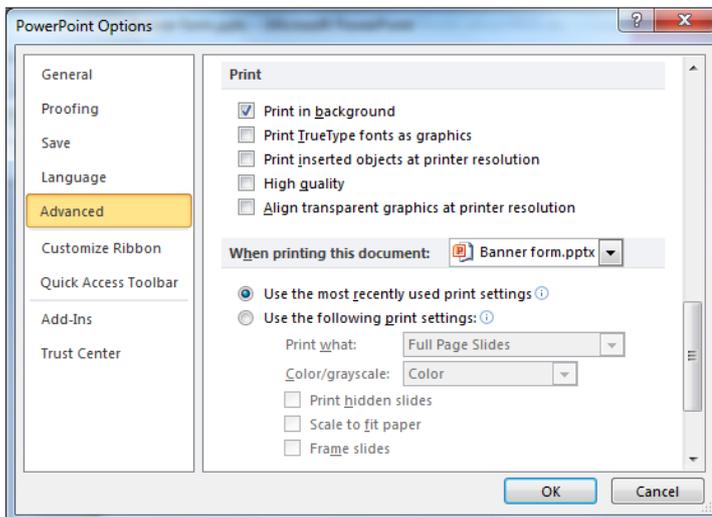
**Booklet -Tabloid.hst** for the Tabloid paper (279x432 mm)

*Be careful when creating the document to always use custom format in PowerPoint even for already defined paper size.*

i.e. for Letter create page as custom:



Also make sure that the scale to fit paper option is disabled:

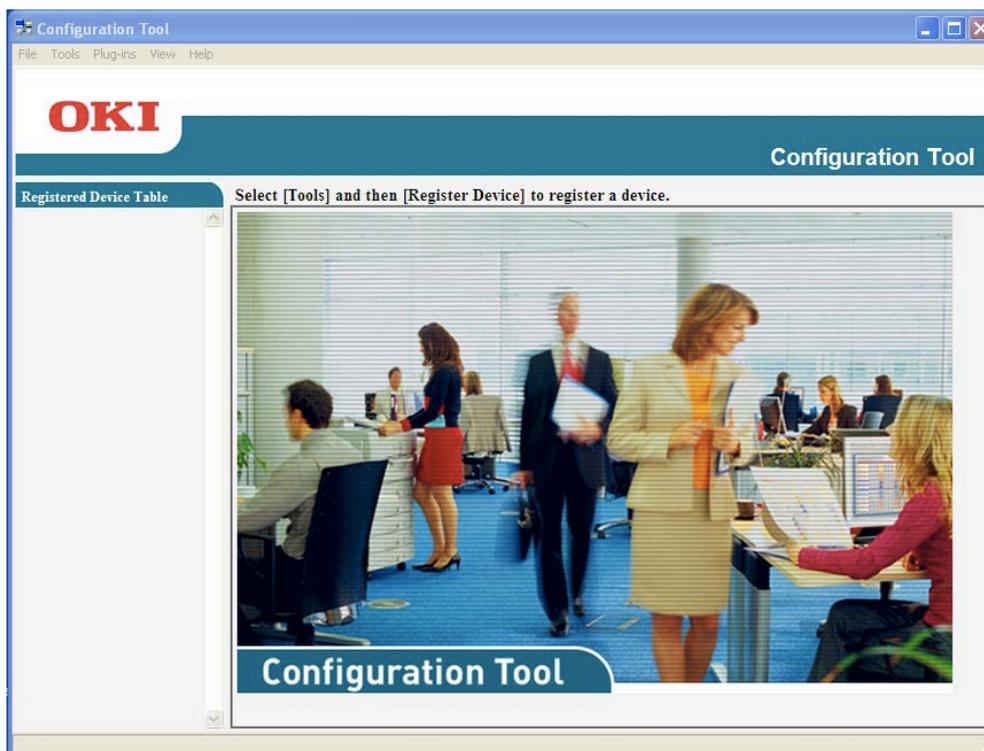


## 9 Package the Forms and send them to DICOM Embedded Printer, using Configuration Tool

Install OKI Configuration Tool 1.6.5 or later on your computer if not yet done.

Application software is available on the Software DVD delivered with the printer and also on OKI web sites. User Documentation is included in the Software Help menu.

Start Configuration Tool.



Step 1: Register your printer.

Click on Tools -> Register Device, then select and register your printer.



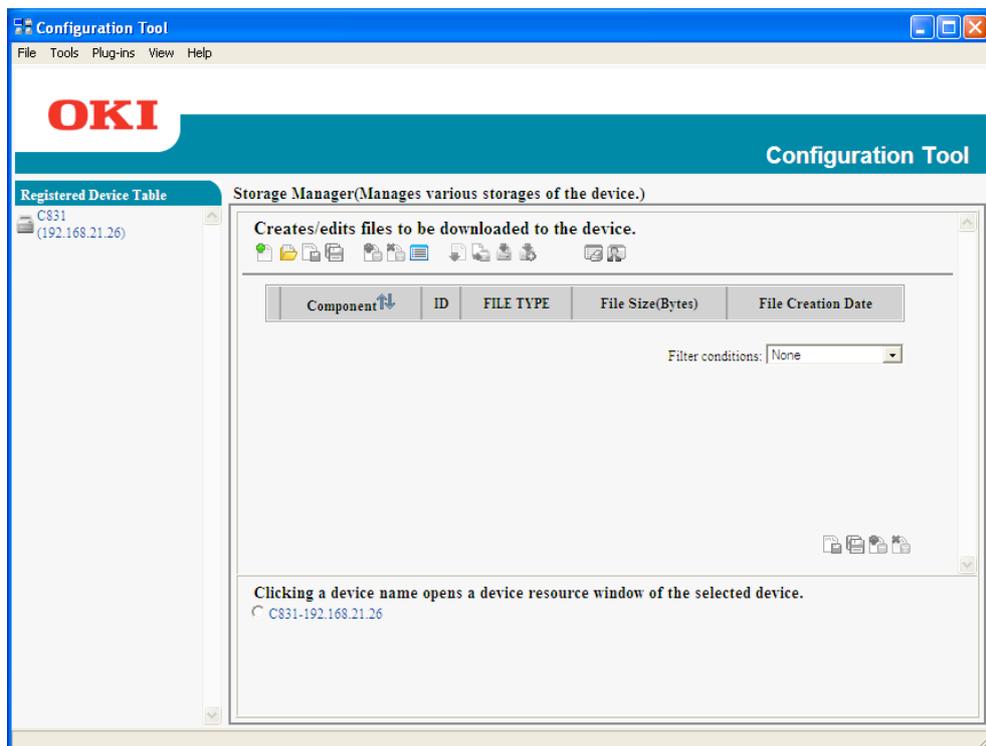
NOTE: if you have already registered your printer, go to Step 2.

## Step 2: Start Storage Manager.

Click on Plug-ins -> Storage Manager.

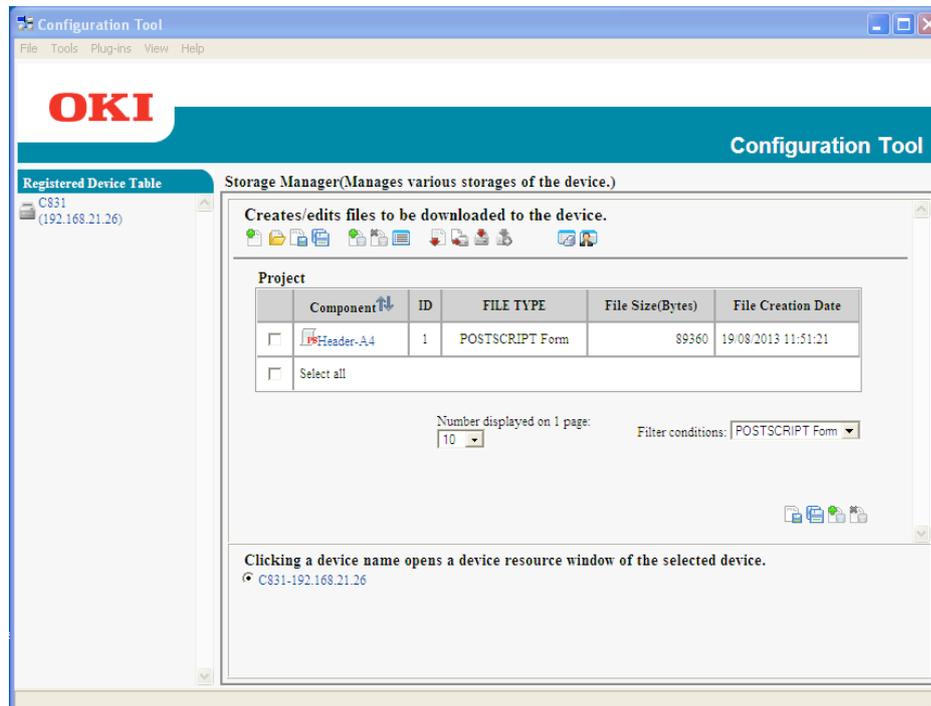


Search for and select your printer at the bottom of the window.



Step3: Select "Create New Project".

Import the File(s) that you just printed.



Header-A4.hst will be automatically transformed into Header-A4 form.

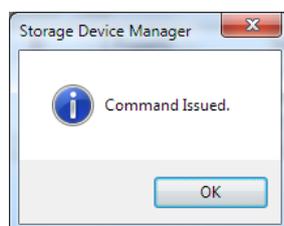
MAKE SURE NAMING MATCHES EXACTLY THE SCHEME.

**Naming is case sensitive.** If there is a mistake, the Form will not work.

Repeat this step, if you need to add Form in another paper format.

Once all the wanted forms are listed in Projects, select "Send Project Files to Printer".

You will receive confirmation with this Popup:



## 10 Package the Forms and send them to DICOM Embedded Printer, using Storage Device Manager

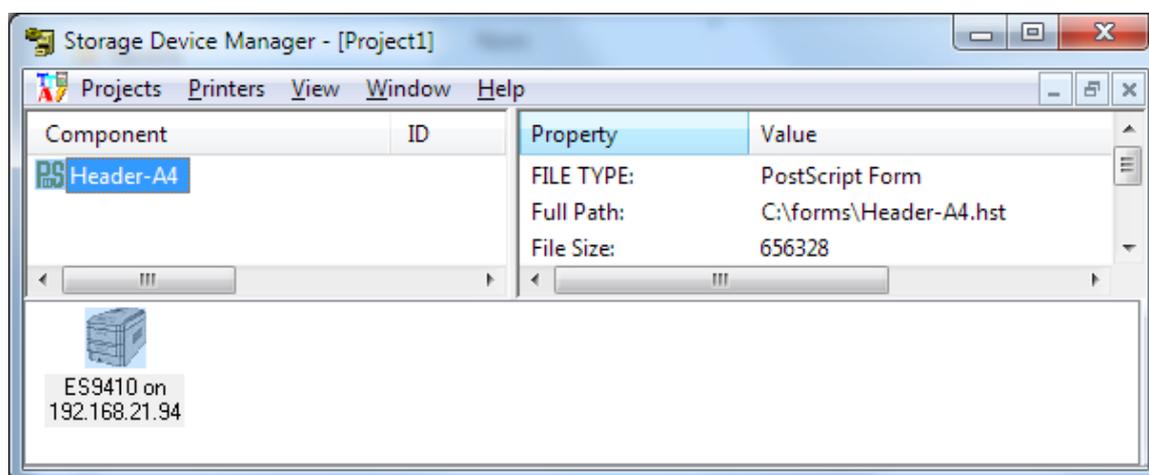
Install OKI Storage Device Manager on your computer if not yet done. Application software is available on the Software DVD delivered with the printer and also on OKI web sites. User Documentation is included in the Software Help menu.

Start Storage Device Manager.

Search for Network for your DICOM Embedded Printer and select it.

Create New Project. Import the File(s) you just printed.

Header-A4.hst will be automatically transformed into Header-A4 form



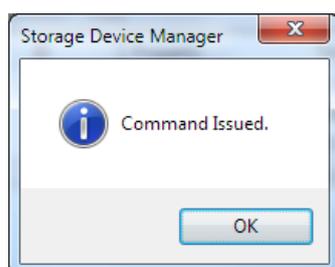
MAKE SURE NAMING MATCHES EXACTLY THE SCHEME.

**Naming is case sensitive.** If there is a mistake, the Form will not work.

Repeat this step if you need to add Form in another format.

Once all the wanted forms are listed in Projects, select "Send Project Files to Printer".

You will receive confirmation with this Popup:

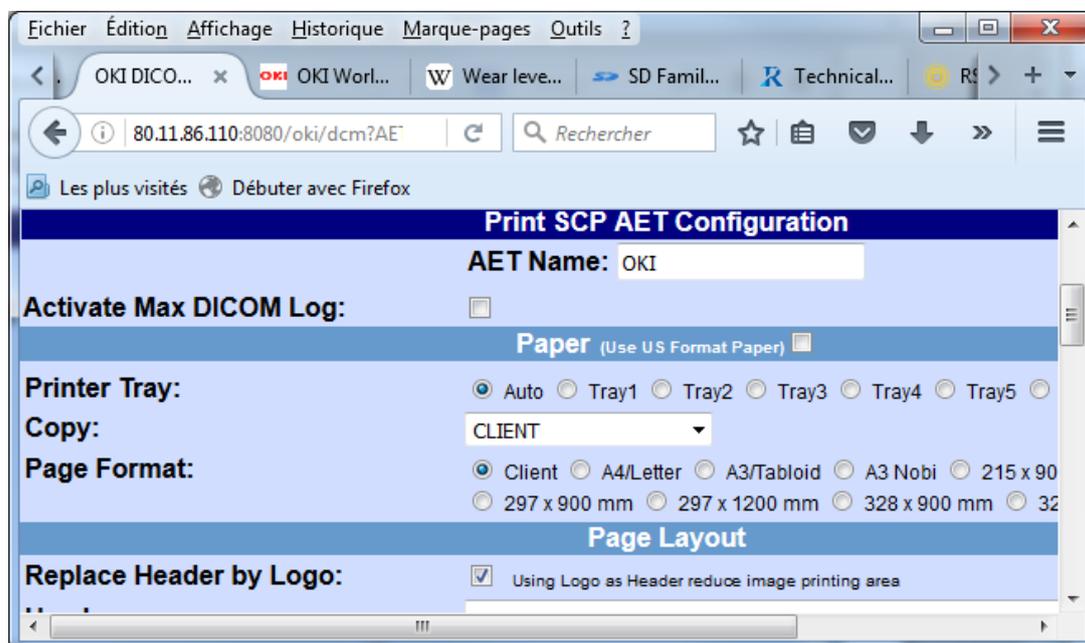


## 11 Using the Form when printing in DICOM

Open DICOM Printer Configuration.

If you want to use the form, you just check the “Replace Header by Logo” option in the AET.

Then click “Save” button.



Then DICOM Embedded Printer calls the needed form up to the paper format that is asked to use.