



CORTADO

Business Class of Cloud Desktop Services

White Paper

Solving Problems with Fonts

Network printing: When my print output contains incorrect characters or fonts



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Incorrect characters or fonts in print output?

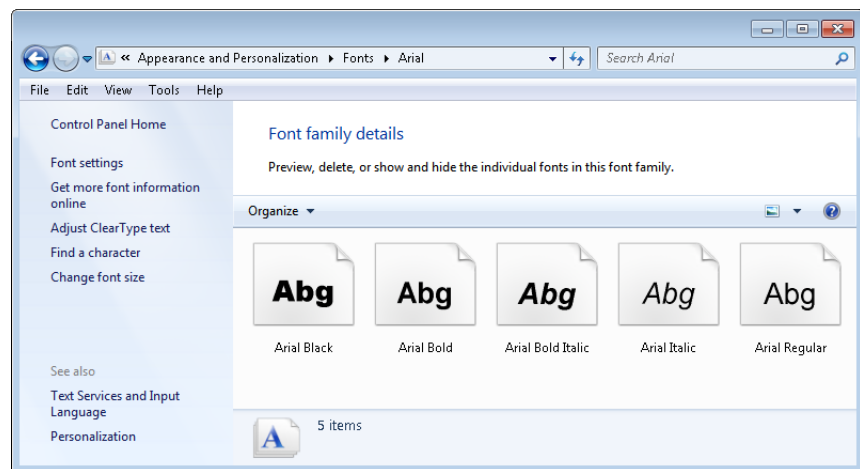
When printing over networks, it's possible that even though the user has selected the correct font in the application, the print output appears with a different font, or with incorrect or missing characters. The characters may also be set too far apart, run into each other, or even overlap.

This is due to the fact that the print jobs were not rendered where they originated. The following offers a guide for resolving such problems using Windows Tools.

Install all fonts on the print server

Install all the fonts required by your users, not only on the computers, but also on all the involved print servers.

Get a clear picture of which computers send print output over a print server – for example terminal servers, virtual desktops or workstations - and which fonts are installed there. It is important that all styles of a font are installed – for Arial for example, that means Arial (Regular), as well as *Arial italic*, **Arial bold** and ***Arial bold italic*** (see Illus. 1).



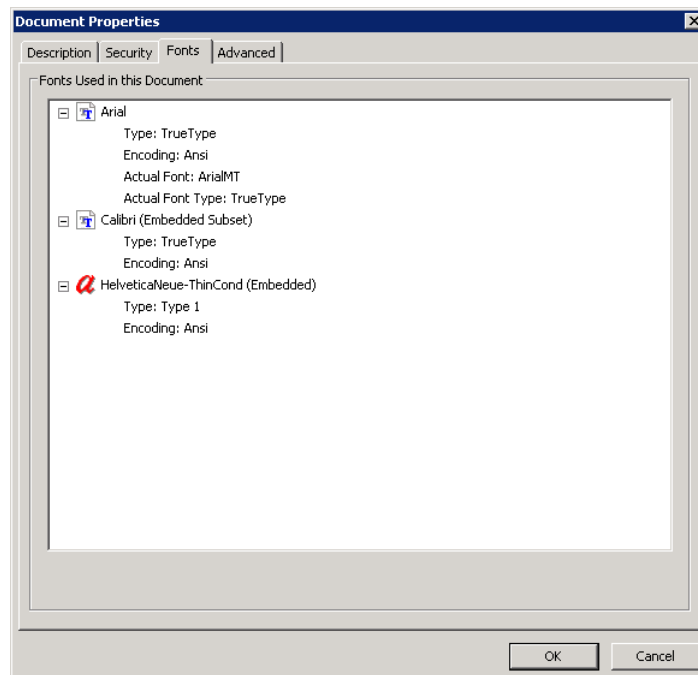
Illus. 1 Arial: font files (= font styles)

Embedding fonts in documents

Your users may wish to print documents that have not originated within your firm. It is possible that these documents will provide the *information* as to which font was used in the relevant application, but the font itself may not have been included, (e.g. by embedding in the document). If the font from one of those documents is already installed on the print server on which print output is to be rendered then there is generally no problem.



Conversely, it is possible to embed fonts in files which are, for example, to be sent to other firms, so that the recipient can print it out as it is meant to be printed. Later you can easily check the PDF file in Adobe Reader, to see if the font was successfully embedded (Illus. 2). To do so, select FILE→ PROPERTIES→ FONTS in Adobe Reader.



Illus. 2 Fonts used in a PDF: Arial (not embedded), Calibri (only those characters used are embedded) and HelveticaNeue (fully embedded)

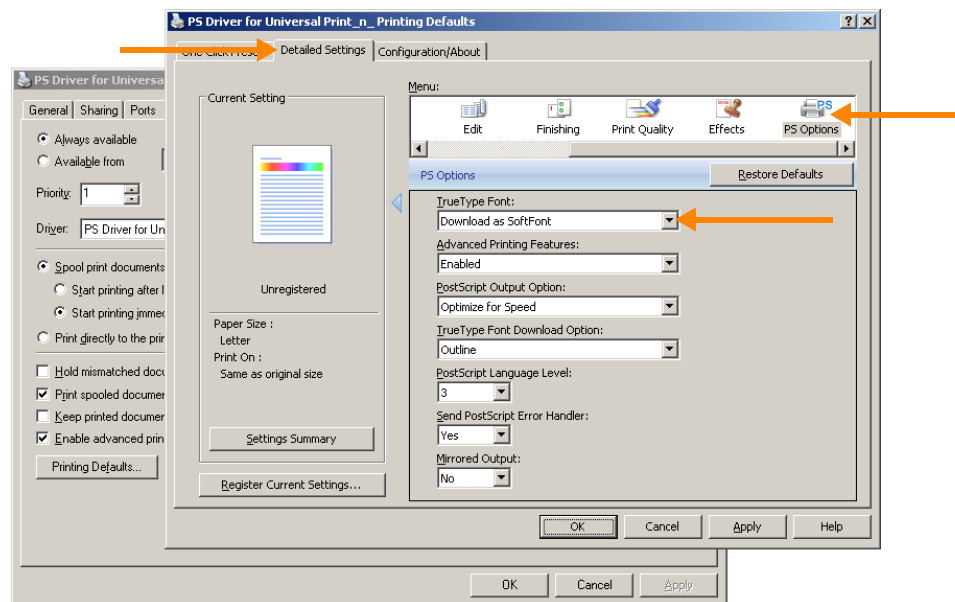
In the above example, even though **Arial** was used in the original document, it is not embedded in the PDF. Of the **Calibri** font, only those characters actually used in the document are embedded (Embedded Subset), and all the characters of the font **HelveticaNeue-ThinCond** are embedded (Embedded).

Switching off automatic font substitution

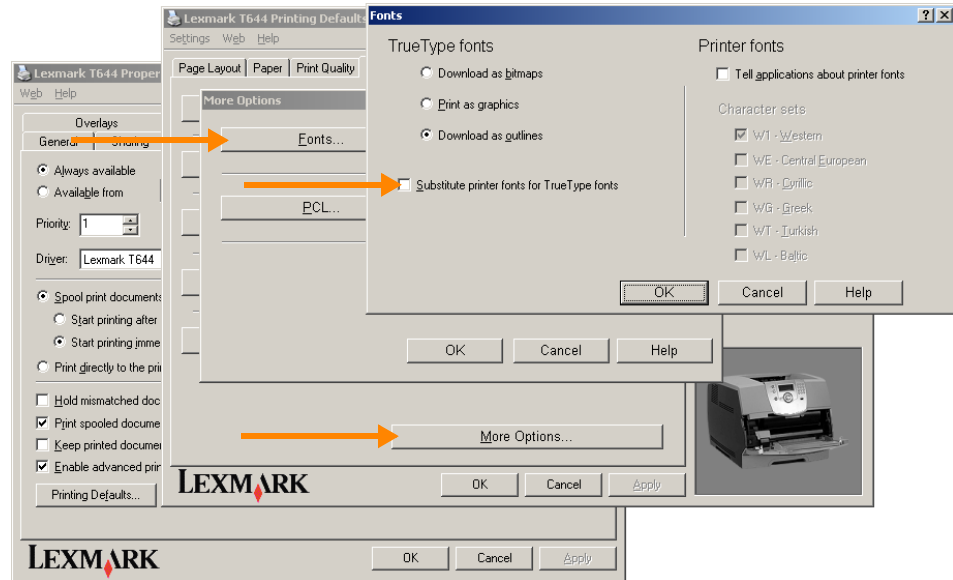
Stemming from the time when printer resources were more limited, there is a function that ensures that original fonts are not sent to the printer, but are instead replaced with substitutes by the printer, or even by the printer driver (with those supplied by the firmware). Thus, for example, instead of the font **Times New Roman**, often the font **Times** is printed, and instead of **Arial**, the somewhat finer **Helvetica**. Although the fonts are not completely identical, in most cases the substitution is not really noticeable. Nonetheless, since the introduction of Unicode fonts with Windows 2000 the character sets no longer match (Unicode fonts are recognizable by the capital **O** in the font icon instead of the double **T**, see Illus. 1). As a result, special characters may be lost.

In addition, new versions of Windows always come with new fonts. Therefore, you should always turn off font substitution when printing in networks. However, depending on the manufacturer, this function can have very different names. Most often, you will find this description: **SUBSTITUTE WITH DEVICE FONT**. Instead choose **DOWNLOAD AS SOFTFONT**. However, this function may be named completely differently. Therefore illustrations 3 to 7 show examples for switching off font substitution for a variety of drivers.

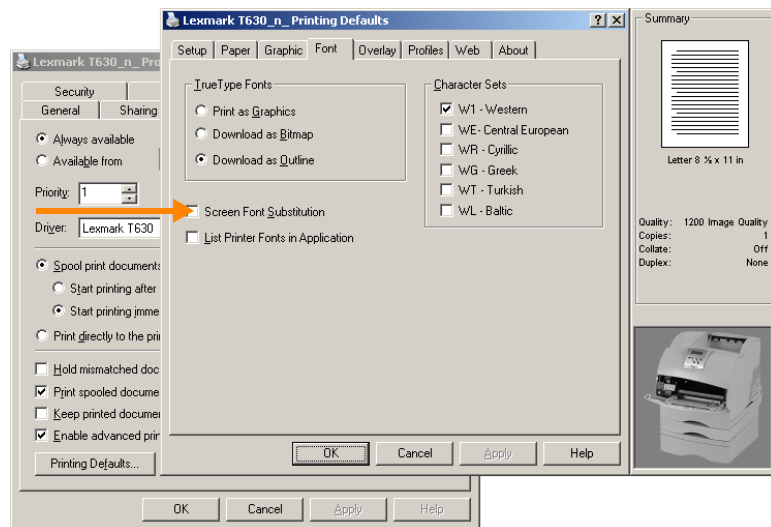
1. Select this setting on the print server in each printer's properties, in the menu **ADVANCED**→ **PRINTING DEFAULTS**.
2. Then check this setting in **GENERAL**→ **PRINTING PREFERENCES** to ensure your setting.



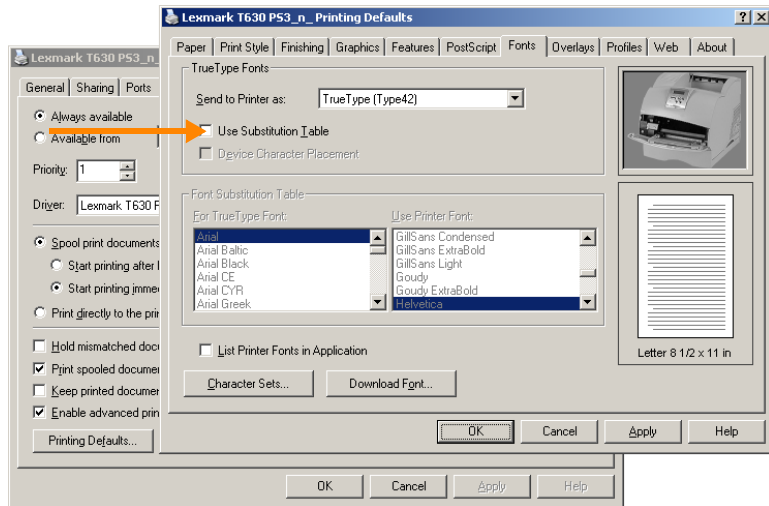
Illus. 3 PS Driver for Universal Print von Ricoh:
Select DETAILED SETTINGS→ PS OPTIONS→ DOWNLOAD AS SOFTFONT



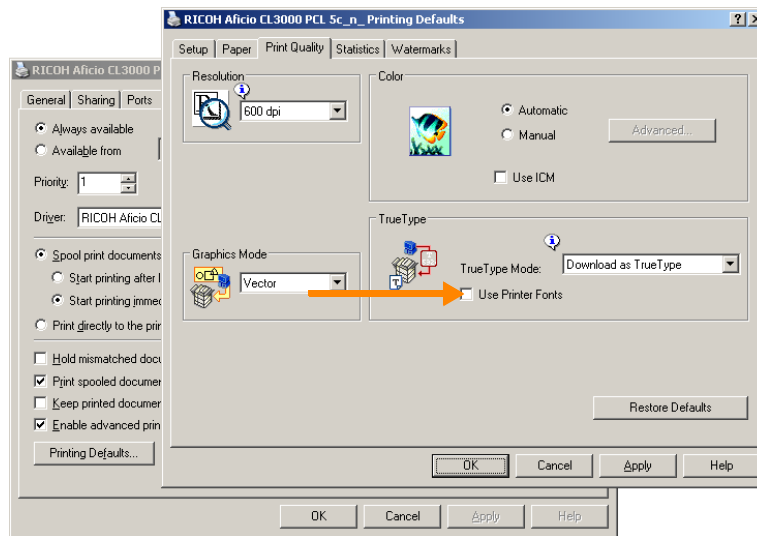
Illus. 4 Lexmark T644: Disable MORE OPTIONS → FONTS → SUBSTITUTE PRINTER FONTS FOR TRUE TYPE FONTS



Illus. 5 Lexmark T630: Disable SCREEN FONT SUBSTITUTION



Illus. 6 Lexmark T630 PS3: Disable USE SUBSTITUTION TABLE

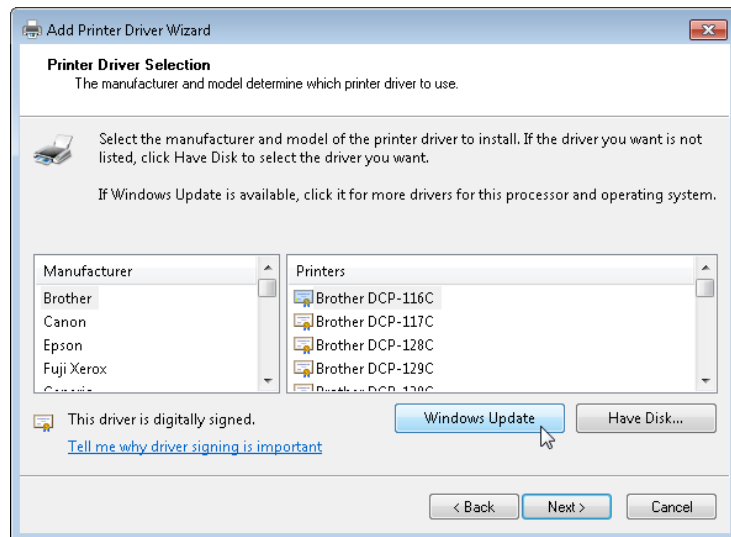


Illus. 7 Ricoh Aficio CL 3000 PCL 5c: Disable USE PRINTER FONTS



Updating printer drivers

Keep your printer drivers up to date. To do so, use WINDOWS UPDATE in the Printers folder of Windows 7 and 2008 R2 (see Illus. 8).



Illus. 8 Windows Update Button with printer driver installation

Installing hotfixes

Microsoft hotfix KB2555392

Install this hotfix if incorrect characters appear **even from a certain page** of a printout with Windows Vista, 7, Server 2008, or 2008 R2.

<http://support.microsoft.com/kb/2555392>

With ThinPrint's **Driver Free Printing** this hotfix is necessary on each (Windows) machine where the ThinPrint Client is installed (and the native printer drivers are used to render the print jobs). Restart the ThinPrint Client afterwards.

With **V-Layer** this hotfix is necessary on the central print server(s) – with failover clusters on each cluster node. Restart the print spooler afterwards.

Microsoft hotfix KB2545698

Install this hotfix in case of unexpected behavior when you use different print quality for sheets in Excel.

<http://support.microsoft.com/kb/168563>

Microsoft hotfix KB2545698

Install this hotfix if text in some core fonts appears blurred in **Internet Explorer 9** on a computer that is running Windows Vista, Windows Server 2008, Windows 7, or Windows Server 2008 R2.

<http://support.microsoft.com/kb/2545698>

ThinPrint hotfix 8.6.2 (= HF 002)

This hotfix improves font management with ThinPrint. **It is recommended that you first install this hotfix in a test environment.** Check here if the hotfix solves your font problems and that conflicts do not occur with certain older printer drivers.

This hotfix consists of two parts (client and server component):

- An update installer for ThinPrint Client Windows (Setup.exe)
- TPView.dll and TP Output Gateway
which have to be exchanged on the central print server

www.thinprint.com/Download/ClientsTools/Download/Hotfixes.aspx

Enabling file based font management for printing using ThinPrint

Note! This method should only be used if all other steps weren't successful, as other font problems may arise.

Fonts which are embedded in print jobs (because they have been embedded in a PDF file) – have to be registered in Windows temporarily. For this purpose there are two font management methods:

■ Memory Based Font Management

The memory based font management was introduced by the idea of renaming embedded fonts *before* their registration. This will solve the name collision problem of the old font management.

■ File Based Font Management

The file based font management is the traditional method of handling temporary fonts. It is disabled by default. **In case of failure** it's possible to enable it again by setting the following registry value¹ to **1**:

```
EnableLegacyFonts [reg_dword]
in:
hkey_local_machine\software\ThinPrint\TpView
```



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With ThinPrint's **Driver Free Printing** this key is necessary on each (Windows) machine where the ThinPrint Client is installed (and the native printer drivers are used to render the print jobs). Restart the ThinPrint Client afterwards.
With **V-Layer** this key is necessary on the central print server(s) – with failover clusters on each cluster node. Restart the print spooler afterwards.

1 Requires TPView.dll v8.0.688/v8.6.699 or higher



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