



Print2PDF Version 9

Advanced Installation



Contents

1.	Introduction	3
2.	Full Installation	3
3.	Citrix Installation	4
4.	Terminal server	4
5.	Installation of the Print2PDF Printer on Client Stations.....	6
5.1.	Installation Using a Shared Printer	6
5.2.	Installation of Print2PDF on a Client Station Using the Add Printer on x86 Script	6
5.2.1.	AddPrinter1.vbs Method	6
5.2.2.	AddPrinter2.vbs Method	7
5.2.3.	Installation of the Print2PDF Printer on a Client Station – File Sharing Script for x64/Vista	8
5.3.	Installation of a Shared Printer in the Active Directory	9
5.4.	MSI Installation Package	11
5.5.	Client Installation Package.....	13
6.	Installation and Configuration of the Windows Print2PDF Service .	14
6.1.	Configuration of the Print2PDF Service	14
6.2.	Windows and Web Service on Windows Server 2008 x64	15
6.2.1.	Converting Microsoft Office Files	15
6.2.2.	Converting OpenOffice Files	15

1. Introduction

This manual describes the basic steps involved in the installation of Print2PDF on a network and the configuration of the Print2PDF web service, web application and Service Manager.

2. Full Installation

The installation is initiated by launching the Print2PDF.exe file. The following parameters can be added as flags:

Command Line Flags for the Print2PDF Installation File

- -nodlg – do not show dialog boxes.
- -noreboot – do not restart after installation.
- -name="..." – username.
- -comp="..." – user company.
- -path="..." – Print2PDF installation path.
- -settings="..." – the path to the INI file with the initial settings.
- -ref= – OEM parameter for a customer.
- -regnum="..." – registration number.
- -printername= – name of printer (this should always be Print2PDF).
- -Lxxxx – installation language.

Installation Language Codes (-L)

- 0005 – Czech
- 0006 – Danish
- 0007 – German
- 0009 – English
- 000a – Spanish
- 000e – Hungarian
- 0010 – Italian
- 0013 – Dutch
- 0015 – Polish
- 0019 – Russian
- 001d – Swedish
- 001f – Turkish
- 040c – French (Standard)
- 0416 – Portuguese (Brazilian).

Other parameters for the Setup.exe file are described at the InstallShield technical support site at the following link: [Q105473](#)

3. Citrix Installation

Print2PDF can either be installed using the standard method or it can also be installed on a standalone Citrix station or a terminal server. The installation on a Citrix server farm requires a series of special steps.

- Follow the steps below to install the Print2PDF Server Edition on your server farm:
 - Install Print2PDF Server Edition on the first server in the farm.
 - Set up sharing for the Print2PDF printer.
 - Register the application (if you skip this step, you'll be forced to remove the Print2PDF printer from all servers and then add it again in order to eliminate a TRIAL version message popup).
 - Connect all of the other servers in the farm to the shared printer.
 - Restart all servers.

From now on, the Print2PDF printer will be accessible from ALL servers in farm 1.

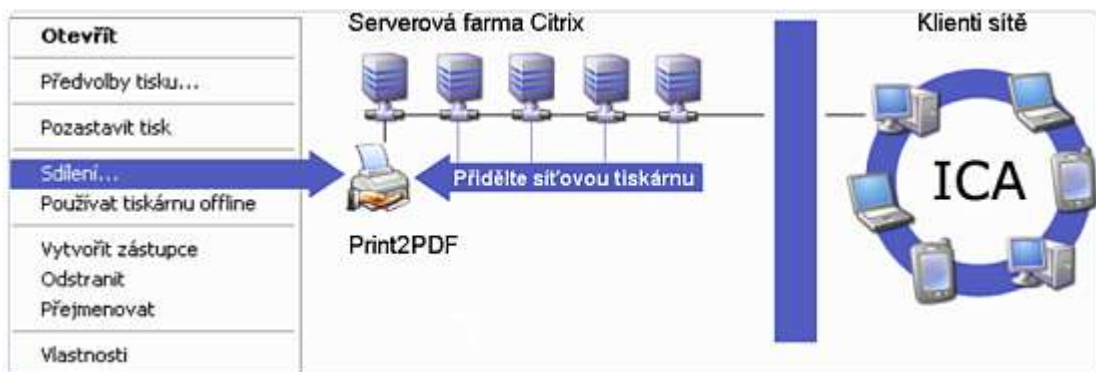


Figure: Print2PDF Sharing on a Citrix Server Farm

Licensing note: If you own a server that is not part of the same sub-network, you will need an additional license.

4. Terminal server

The Print2PDF printer requires the Print2PDF.exe process to be running in order to function. Print2PDF supports programs that are published as an application or desktop. If the user has access to the desktop, the Print2PDF.exe process is launched by using the following registration key:

```
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Run
```

If the program is published as an application or if the above key is not enabled after the user logs in, the following steps must be completed in order to enable Print2PDF:

1. Open either your centralized login script or individual USRLOGON.CMD scripts for each server (they can be found in the following location: SystemRoot%\system32 directory).
2. Depending on your system's architecture, insert one of the following in front of the script:
 - a. 32-bit architecture: start
%SystemRoot%\system32\spool\drivers\w32x86\3\Print2PDF.exe /server

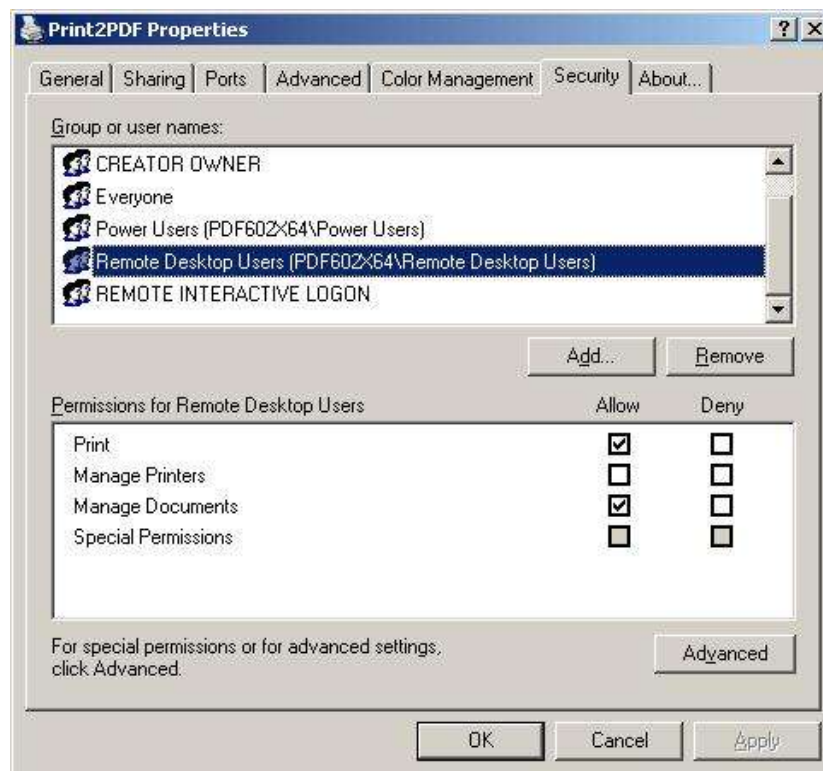
- b. 64-bit architecture: start
%SystemRoot%\system32\spool\drivers\x64\3\Print2PDF.exe /server
3. Save the file.
4. After the given user logs in, the Print2PDF.exe process will be shown in the given user's task manager.

After you have installed the network printer on all servers in the farm, you can disable printer sharing from the first server (this is optional but recommended).

To assure the proper functionality of Print2PDF you will have to set up permissions on the terminal server during the install. All terminal service clients must be members of the **Remote Desktop Users** group.

For terminal server 2003 x64, you will also have to set document administration permissions under the 'Properties' for the Print2PDF driver:

1. In the **Printers and Faxes** menu select the **Print2PDF** virtual printer and click on 'Properties' in the context menu for this printer.
2. Under the **Security** tab, change the existing permissions for the **Remote Desktop Users** group to allow them both 'Print' and 'Manage Documents' (see the screenshot below).



After login, the **Print2PDF.exe** process will be shown in the list of processes in the given user's task manager.

After you have installed the network printer on all the servers in the farm you can disable printer sharing from the first server (this is optional but recommended).

5. Installation of the Print2PDF Printer on Client Stations

The software can be distributed to other computers (with a simplified menu) from the computer on which the full version of the printer has been installed.

5.1. Installation Using a Shared Printer

The following instructions assume the Print2PDF printer has been installed on a server that is accessible to client stations and that the printer is shared with the users of the given network.

1. On the client station, go to **Start** → **Settings** → **Printers and Faxes**.
2. Select **Add Printer** to bring up the **Add Printer Wizard**. Click **Next** twice in a row.
3. When in the Add Printer Wizard, select **A network printer, or a printer attached to another computer**. Click **Next**.
4. Select **Browse for a printer** and then choose the server on which Print2PDF has been installed from the available list of options. If you don't see it on the list, enter a direct link to the program in the following format: `\\server\Print2PDF` into the **Printer:** box. If it is not a printer that is located on the local network, you will need to enter the full URL link for the printer into this box. When done, click **Next**.
5. In the next window, you will be able to set this virtual printer as the default printer for the given station. When done, click **Next**.
6. Complete the add-printer process by clicking **Finish**.
7. You should now see the new printer in the list of available printers for the given station.

Note: In order to assure a successful installation you need to restart the given computer immediately.

5.2. Installation of Print2PDF on a Client Station Using the Add Printer on x86 Script

There are multiple options for the installation of a driver for the printer onto client stations that are part of the given network. Shown below are two examples of a script (.vbs). One of them uses the AddWindowsPrinterConnection method and the other uses the PrintUI.DLL library. Both of these scripts work only in the 32-bit version of Windows.

5.2.1. AddPrinter1.vbs Method

More information on the AddWindowsPrinterConnection method from Microsoft can be found here: <http://msdn.microsoft.com/en-us/library/zsdh7hkb>.

```
' AddPrinter1.vbs
' Print2PDF installation script #1
' Uses the AddWindowsPrinterConnection method
Dim WshShell, netPrinter, UNCpath
UNCpath = "\\servername\print2pdf"
Set Net = CreateObject("WScript.Network")
Net.AddWindowsPrinterConnection UNCpath
```

```
WScript.Sleep 30000
Set WshShell = WScript.CreateObject("WScript.Shell")
' 32-bit
WshShell.Run("%SystemRoot%\system32\spool\drivers\w32x86\3\Print2PDF.exe server")
' 64-bit
' WshShell.Run("%SystemRoot%\system32\spool\drivers\x64\3\Print2PDF.exe /server")
WScript.Quit
```

5.2.2. AddPrinter2.vbs Method

More information on the PrintUI.DLL library from Microsoft can be found here:
<http://technet.microsoft.com/en-us/library/cc784753%28WS.10%29.aspx>.

```
' AddPrinter2.vbs
' Print2PDF installation script #2
' Uses the PrintUI.DLL library
Dim WshShell
Set WshShell = WScript.CreateObject("WScript.Shell")
WshShell.Run("rundll32 printui.dll,PrintUIEntry /in /n\\servername\print2pdf /q")
WScript.Sleep 5000
WshShell.SendKeys "{ENTER}"
WScript.Sleep 30000
' 32-bit
WshShell.Run("%SystemRoot%\system32\spool\drivers\w32x86\3\Print2PDF.exe server")
' 64-bit
' WshShell.Run("%SystemRoot%\system32\spool\drivers\x64\3\Print2PDF.exe /server")
WScript.Quit
```

Note: The automated search option in Windows XP WILL NOT INSTALL THE DRIVER CORRECTLY! You have to use either the **Add Printer** path or one of the two methods described above.

5.2.3. Installation of the Print2PDF Printer on a Client Station – File Sharing Script for x64/Vista

In addition to MSI there is currently also one more option for adding the Print2PDF printer to a network client station running Windows Vista or a client station running a 64-bit operating system:

Share the following folder on the server as **print2pdf_files** with reading permissions: **%SystemRoot%\system32\spool\drivers\print2pdf**.

Run the following batch (BAT) file on the client station (insert the name of your server after **servername**):

AddPrinter3-x86.bat

```
@echo off
REM AddPrinter3-x86.bat
REM Add Print2PDF to x86 client, requires elevated Administrator rights
mkdir %SystemRoot%\system32\spool\drivers\print2pdf\
xcopy \\servername\print2pdf_files\*.*
%SystemRoot%\system32\spool\drivers\print2pdf\ /y
cd %SystemRoot%\system32\spool\drivers\print2pdf\
> cleanpdf.reg ECHO REGEDIT4
>>cleanpdf.reg ECHO.
>>cleanpdf.reg ECHO [-HKEY_LOCAL_MACHINE\SOFTWARE\Software602\Print602]
>>cleanpdf.reg ECHO.
regedit /s cleanpdf.reg
del cleanpdf.reg
copy acfpdf.txt ..\w32x86\acfpdf.txt
copy acfpdfu.dll ..\w32x86\acpdf300.dll
copy acfpdfui.dll ..\w32x86\acpdfui300.dll
Install.exe %SystemRoot%\system32\spool\drivers\print2pdf\P2PDF_x86.ini
Install.exe %SystemRoot%\system32\spool\drivers\print2pdf\Print2PDF.ini
regsvr32 /s %SystemRoot%\system32\spool\drivers\print2pdf\instdrv.dll
start %SystemRoot%\system32\spool\drivers\w32x86\3\Print2PDF.exe /server
```

AddPrinter3-x64.bat

```
@echo off
REM AddPrinter3-x64.bat
REM Add Print2PDF to x64 client, requires elevated Administrator rights
mkdir %SystemRoot%\system32\spool\drivers\print2pdf\
xcopy \\servername\print2pdf_files\*.*
%SystemRoot%\system32\spool\drivers\print2pdf\ /y
cd %SystemRoot%\system32\spool\drivers\print2pdf\
> cleanpdf.reg ECHO REGEDIT4
>>cleanpdf.reg ECHO.
>>cleanpdf.reg ECHO [-
HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Software602\Print602]
>>cleanpdf.reg ECHO.
```

```
regedit /s cleanpdf.reg
del cleanpdf.reg
copy acpdf.txt ..\x64\acpdf.txt
copy acpdfuamd64.dll ..\x64\acpdf300.dll
copy acpdfuiamd64.dll ..\x64\acpdfui300.dll
Install.exe %SystemRoot%\system32\spool\drivers\print2pdf\P2PDF_x64.ini
Install.exe %SystemRoot%\system32\spool\drivers\print2pdf\Print2PDF.ini
regsvr32 /s %SystemRoot%\system32\spool\drivers\print2pdf\instdrv.dll
start %SystemRoot%\system32\spool\drivers\x64\3\Print2PDF.exe /server
```

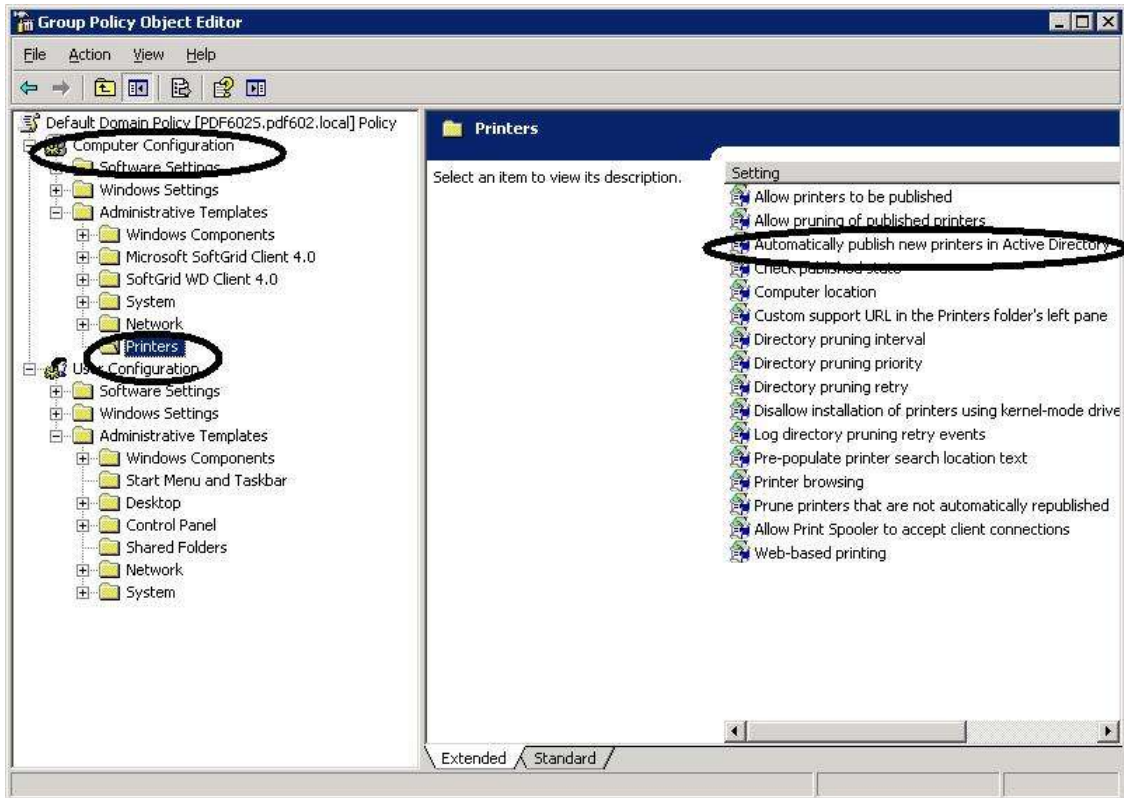
Note: The file above must be run with Administrator permissions.

5.3. Installation of a Shared Printer in the Active Directory

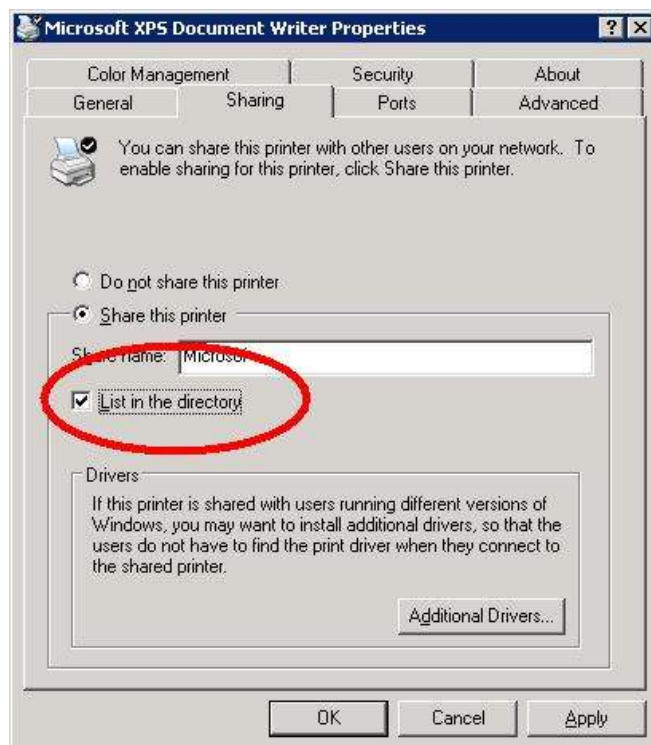
The installation of Print2PDF network clients in the Active Directory requires a change to certain settings prior to installation:

1. In **Default Domain Policy**, you will have to disable the **Automatically Publish new printers in Active Directory** rule (this will not prevent the use of other printers in the Active Directory as long as the **Allow printers to be published** rule remains unconfigured or allowed). The change must be entered in **Default Domain Policy** with the highest priority – i.e. in Domain Properties or the Active Directory in which you want to install Print2PDF (depending on whether the Active Directory is separate from the domain, how many domain controllers there are, etc.).

The rule is set for **Computers / Computers in Active Directory**. The screenshot below shows the location of these items: **Computer Configuration / Administrative Templates / Printers / Automatically**.



2. After installing the server version you will have to disable publishing (but allow sharing) in the Active Directory list in the 'Properties' for the Print2PDF printer.



3. Perform the installation on the desired client stations.

4. Restart the given services.

Note: The disabling of this rule only applies to the installation of a new printer – this rule only determines that the newly installed printer is to be published AUTOMATICALLY in the Active Directory list. The only time this isn't possible is during the installation of Print2PDF (it is a virtual printer, which doesn't link to a specific location on the network, and thus it requires having the necessary files installed on local client stations). The ability to publish new and existing printers will not be affected by the above, since publishing can be re-enabled for other printers under the 'Properties' for the given printer.

5.4. MSI Installation Package

Print2PDF 9 supports the creation of an installation package in the **.msi** format for the distribution of client printers through GPOs in the Active Directory.

The packages (there are always two – one for the 32-bit and one for the 64-bit versions of the OS) are created by the Print2PDF administrator (this does not necessarily have to be a GPO administrator). The packages are created on the source computer containing the installation of the full version of the software after the settings for the program have been changed (conversion profiles, language, default values).

The packages are created by using candle.exe, light.exe and other programs from the WIX Installer distribution (<http://wix.sourceforge.net/>).

The packages can either be distributed through a GPO (with a specified target platform – x86 or x64) or they can be run directly on the target user station, if the permission settings of the given user allow it.

The creation of the MSI packages is launched from the main program window. This function will run a batch file that will create (using the available source files) the following files on the desktop of the currently logged-in user: Print2PDF_client_x86.msi and Print2PDF_client_x64.msi.



Note: The MIS-based installation will require a restart of the target computer. If the MSI package is installed through a GPO, the restart is done automatically during the installation of the program after the computer logs into the network. When installing for a user, the computer will prompt the user to do a restart.

Note: In some cases, error 217 has been reported to occur during the validation of the created MSI. To fix this error, it is recommended that you temporarily delete the following registry keys:

32-bit system

HKCU\SOFTWARE\Classes\CLSID\{B54F3741-5B07-11CF-A4B0-00AA004A55E8}
HKCU\SOFTWARE\Classes\CLSID\{F414C260-6AC0-11CF-B6D1-00AA00BBBB58}

64-bit system

HKCU\SOFTWARE\Classes\Wow6432Node\CLSID\{B54F3741-5B07-11CF-A4B0-00AA004A55E8}
HKCU\SOFTWARE\Classes\Wow6432Node\CLSID\{F414C260-6AC0-11CF-B6D1-00AA00BBBB58}

For more information, see Aaron Stebner's following WebLog article:

<http://blogs.msdn.com/b/astebner/archive/2007/06/07/3151752.aspx>

and Heath Stewart's following blog article:

<http://blogs.msdn.com/b/heaths/archive/2007/05/31/windows-installer-errors-2738-and-2739-with-script-custom-actions.aspx>.

5.5. Client Installation Package

This is an alternate installation method that was used in previous versions of Print2PDF. It is compatible with Windows 2000, XP, 2003, Vista and 2008 (x86/x64).

It is no longer directly supported; however, the script is still included in the distribution package for the program. The script, which will prepare an installation package, can be found under: Prepare_client.vbs.

Command Line Parameters

-ai1	automatic detection and installation of the x86 or x64 version of Print2PDF
-ai2	installation of the x86 version of Print2PDF
-ai3	installation of the x64 version of Print2PDF
-gm2	hide dialog box

Example:

An installation without a dialog box and with the automatic detection of the system architecture, will be formatted as follows:

```
print2pdf-client.exe -ai1 -gm2
```

5.5.1.1. Uninstall the Print2PDF Printer from the Command Line

To uninstall the Print2PDF printer you can use the PrintUI.dll system library. An example for a complete description of the parameters is:

<http://www.robvanderwoude.com/2kprintcontrol.php>. The printer and its driver can be uninstalled using the following pair of commands:

- `rundll32 printui.dll,PrintUIEntry /dl /n print2pdf`
- `rundll32 printui.dll,PrintUIEntry /dd /m "print2pdf 8"`

6. Installation and Configuration of the Windows Print2PDF Service

The service is installed in the **Service Manager** dialog box of the Print2PDF program.

To perform the installation the Windows Print2PDF service is launched in the main dialog box. The service must be installed and run under a password-protected user account with administrator privileges.

The Windows Print2PDF service must be running in order to complete the installation of the web service and the web application.

6.1. Configuration of the Print2PDF Service

The service converts files into a PDF format by using pre-selected configuration files (*.ini). This is equivalent to a profile in the Print2PDF server application (see the *User Manual*).

When preparing these files, you can use inherited parameters for the conversion process.

Set one of the configuration files as the default file and use a tool such as Print2PDF Configuration to configure the file.

Other profiles can be linked to this file through a path inserted into the header of the given profile:

Example of a Header for the Firma_0.ini configuration file:

```
[PDF]
ParentProfile=C:\Config\_Spolecny.ini
Watch_IniPath=C:\Config\Firma_0.ini
Watch_InputSource=0
Watch_WatchPath=C:\Folder\Firma_0
Watch_OutputPathEnabled=1
Watch_OutputPath=C:\ Folder \Firma_0\Output
Watch_ErrorPathEnabled=1
Watch_ErrorPath=C:\ Folder \Firma_0\Errors
Watch_ReportPathEnabled=1
Watch_ReportPath=C:\ Folder \Firma_0\Reports
Watch_Mail_Recips=mail_0@mail.cz
Watch_LogFile=C:\ Folder \Logs\Firma_0.log
```

The ParentProfile parameter specifies the path to the initial configuration file. The other parameters are configuration parameters that vary from the default file. The rule is that if a specific parameter is found in this file, it is retrieved from the ParentProfile.

Note: Change configurations cannot be edited through the Print2PDF Configuration tool (which stores all parameters).

The definition file is activated for conversion by using the space bar.

Another option available in the Service Manager is to run different scripts within the specified time interval. These scripts can be used for one-off process terminations, system maintenance, etc.

6.2. Windows and Web Service on Windows Server 2008 x64

To activate the web service you don't need to install Framework 1.1 – all you need is the existing version 3.0 or 3.5 (if the server is configured as an application server). You may experience problems with the setting of permissions for DCOM objects (they are not available with predefined names as they are on the previous versions of the operating system).

6.2.1. Converting Microsoft Office Files

Until the 2010 version of Microsoft Office was released, the applications that are part of this software suite were only available in a 32-bit version, which means certain problems and issues may arise when using these applications. If you run into conversion problems, one solution is to create a new folder named "Desktop" in the C:\Windows\SysWOW64\config\systemprofile directory and set permissions (under the 'Properties' for the new folder) for the following: Users, Administrator (and any other account under which the Print2PDF service is running. Alternatively, you could also set permissions for Everyone (depending on the given installation and the security policies used for the given server).

If this fails to resolve the problem you can try to set permissions for the MS Word Document DCO interface (the procedure is similar to that described in the instructions to be used for OpenOffice – see below).

6.2.2. Converting OpenOffice Files

Note: The conversion of documents using the Print2PDF Windows service or web service with the OpenOffice application suite is normally not supported on this platform (not even by the creators of OpenOffice). The following steps may help you to configure the conversion capability correctly but keep in mind that it is only included as an unofficial guide and Software602 a.s. will accept no liability for any damage or loss of data occurring as a result of the use of this method and the company does not guarantee that conversions will work properly with this configuration.

For use with OpenOffice, the setup.xcu file must be modified as follows:

Find the following section of code in the setup.xcu file:


```
<prop oor:name=„ooSetupInstCompleted“ > <value>>false</value></prop>  
<prop oor:name=„ooSetupShowIntro“ > <value>>true</value></prop>
```

Replace the following parameters:

```
<prop oor:name=„ooSetupInstCompleted“ oor:type=„xs:boolean“  
<value>>true</value> </prop> <prop oor:name=„LicenseAcceptDate“  
oor:type=„xs:string“ > <value>2006-07-25T17:34:04</value> </prop> <prop  
oor:name=„FirstStartWizardCompleted“ oor:type=„xs:boolean“  
<value>>true</value> </prop>
```

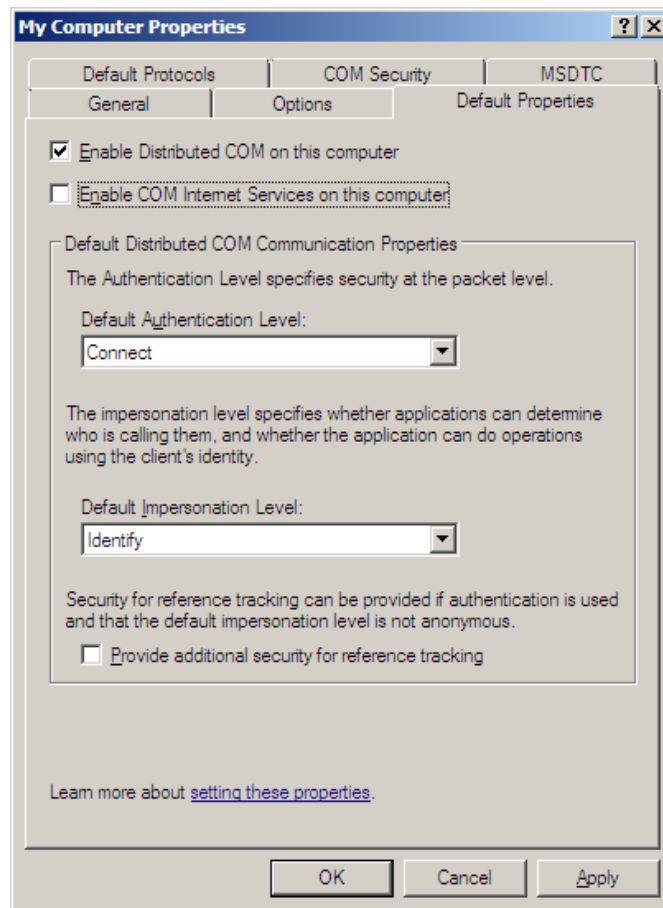
You will then have to change the 'Properties' of the "OpenOffice 1.1 Text Document" DCOM object (similar to what has to be done for the "Microsoft Office Word 97- 2003 Document" object when working with MS Office.

For the OpenOffice object you will have to change the settings under the 'Identity' tab of the 'Properties' dialog box to the launching user (this could be the Administrator or you can even set up a new account for the web application). This account is used during the installation of the web application (see below) and it should be part of the administrator



accounts group. The reason for the difference above is the different approach to access permissions in OpenOffice (classes and objects). When done, restart the Print2PDF service and IIS.

The next thing you will have to do is to enable the use of the DCOM interface (go to: **Component Services / Computers / My Computer / Properties**).



You will then have to set permissions for the DCOM object:

1. In registries, look up which key under

`HKEY_LOCAL_MACHINE\SOFTWARE\Classes\CLSID`

belongs to an OpenOffice text document. This can, for example, be the following key:

`{30A2652A-DDF7-45e7-ACA6-3EAB26FC8A4E}`

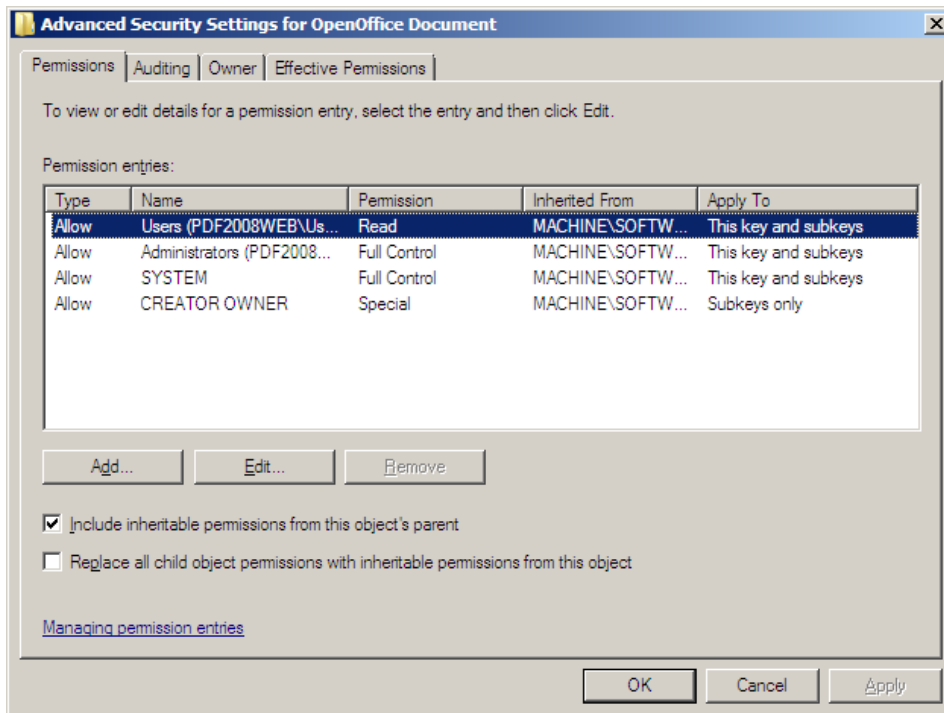
2. Launch Microsoft Word, which should then register itself. In the registration database, create a new key under

`HKEY_LOCAL_MACHINE\SOFTWARE\Classes\AppID\`

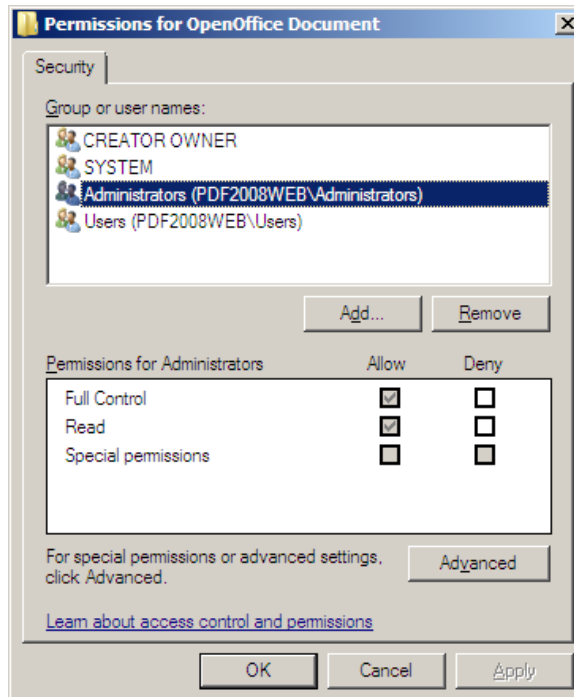
with a name of your choice and AppID string value, for which you will insert the key used for the OpenOffice text document. It should end up looking something like the following:

```
[HKEY_LOCAL_MACHINE\SOFTWARE\Classes\AppID\Document OpenOffice]
„AppID “="{30A2652A-DDF7-45e7-ACA6-3EAB26FC8A4E}“
```

3. Modify the permissions for the new key – set the Print2PDF service account as the current owner (in this case, this is the Administrator):



- Once again, add the launch account for the Print2PDF service and the user and IIS accounts to the list of allowed users.



- Restart the operating system (IIS and DCOM server).