



Print2PDF 7.0 Conversion Server

Developer Guide

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Overview

Print2PDF can easily integrate with other applications using the Print2PDF Configuration application, configuration file, or simple Windows registry entries. By specifying certain parameters, print output can be customized to suit your needs.

Integration Methods

Print2PDF settings can be modified through the Print2PDF Conversion Server Configuration application, configuration file, or simple Windows registry entries. Below you will find a description of each integration method:

Method	Description
%programfiles%\Software602\Print2PDF CS\prnpack.exe /admin	GUI application to configure Print2PDF user settings and generate defaults.ini configuration files
%programfiles%\Software602\Print2PDF CS\defaults.ini	Configuration file that controls Print2PDF default settings
HKCU\Software\Software602\Print2PDF CS\2001\PDF	Print2PDF registry settings (user)
HKCU\Software\Software602\Print2PDF CS\2001\PDF\SDK	Print2PDF registry settings (SDK)

NOTE: %programfiles%\Software602\Print2PDF CS\ is the default installation path that can be changed during installation. The safest way to find the Print2PDF installation directory is to query the following registry key: **HKLM\Software\Software602\Print2PDF CS\InstallDir**

Order of Integration

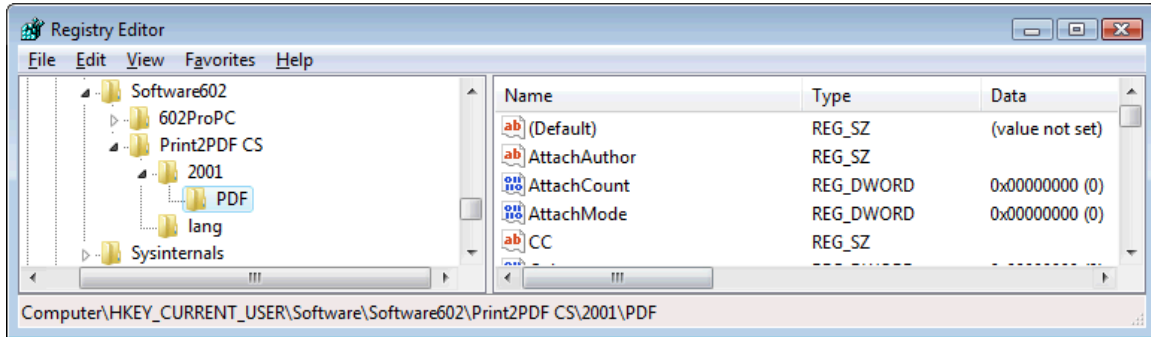
Print2PDF will search for preferences in the following order, once preferences are found, the search process will end:

1. User preferences defined from the **Print2PDF Conversion Server Configuration** application. These are stored in the registry under: **HKEY_CURRENT_USER\Software\Software602\Print2PDF CS\2001\PDF**
2. Global preferences in the file:
%systemroot%\system32\spool\drivers\w32x86\3\defaults.ini
3. Global preferences in the installation directory:
%programfiles%\Software602\Print2PDF CS\defaults.ini
4. Global preferences in the file:
%systemroot%\system32\defaults.ini
5. Global preferences in the file:
%systemroot%\defaults.ini
6. Default preferences that are hard coded into the Print2PDF application.

User Integration

User integration provides developers with the ability to directly modify the settings used by the user. If a developer does not use the **SDK_IniFile** String value (e.g. the value does not exist or is blank) or the **SDK_UseKey** (e.g. the value does not exist or equals 0) the settings from the following registry key will be used:

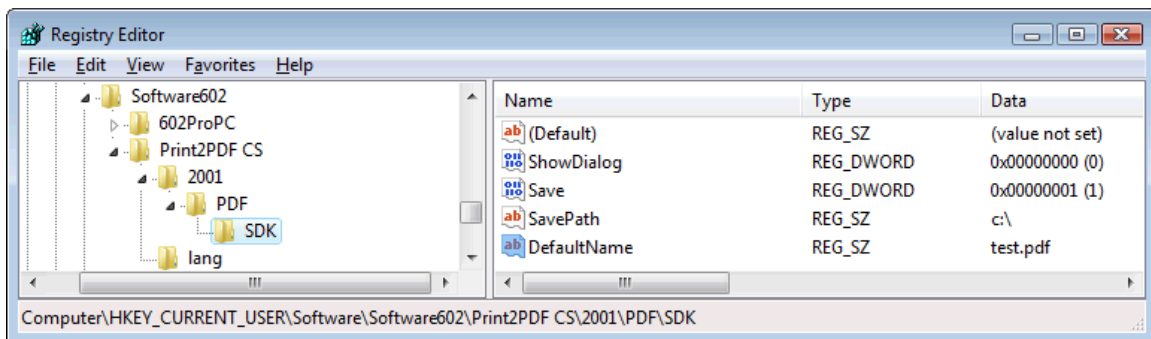
HKEY_CURRENT_USER\Software\Software602\Print2PDF CS\2001\PDF



SDK Integration

SDK integration provides developers with the ability to define settings for use in application integration that does not affect the user settings of the print driver. Developers can use multiple configuration files with the **SDK_IniFile** String value (e.g. c:\mydefaults.ini). Alternatively, developers can create the **SDK_UseKey** DWORD value (0 = off, 1 = on), and create a sub-key **SDK** under the **HKEY_CURRENT_USER\Software602\Print2PDF CS\PDF** key. The next print job will use the preferences from the configuration file or sub-key. After printing is complete, the contents of the **SDK_IniFile** and **SDK_UseKey** will be cleared, so the next print job will use the normal configuration values, but the developer preferences will remain in the configuration file or in the following sub-key:

HKEY_CURRENT_USER\Software\Software602\Print2PDF CS\2001\PDF\SDK



Print2PDF

Print2PDF Helper Application

The **PrnPack.exe** application is **REQUIRED** for Print2PDF to work properly. If this application is not running in the current user's context, any print job sent to the Print2PDF printer will fail. To ensure that the **PrnPack.exe** process is running in the same context as your application, use the following Win32 function from user32.dll -- **FindWindow("Print2PDF_window_class", NULL)**. This function will return **NULL** if the **PrnPack.exe** process is not found. If printing is performed interactively with the current logged in user, Windows will start the **PrnPack.exe** process from the following registry key:

HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Run

To start this process manually, run the following command:

%programfiles%\Software602\Print2PDF CS\PrnPack.exe /server

Using Print2PDF

All Print2PDF settings can be changed in the registry or through the configuration file. Here are the names and descriptions of all Print2PDF settings:

Name	Type	Description
ShowDialog	DWORD	Show the Print2PDF dialog window (0 = Hide the dialog, 1 = Basic, 2 = Intermediate, 3 = Advanced)
SDK_IniFile	STRING	If this string value exists, Print2PDF will use the settings found in the INI file specified (e.g. c:\mySettings.ini)
SDK_UseKey	DWORD	Use settings that are stored in the SDK sub-key, this key must be created manually (0 = no, 1 = yes)
OutputFormatPDF	DWORD	Determines the output PDF format (0 = Adobe PDF 1.3, 1 = Adobe PDF 1.4, 2 = Adobe PDF/A Acrobat 7 compatible, 3 = Adobe PDF/A Acrobat 8 compatible)
PerPageCompression	DWORD	Compress page content (0 = no, 1 = yes)
Save	DWORD	Save to file (0 = no, 1 = yes)
SavePath	STRING	Path to save the file (e.g. c:\, %Desktop%) see the section on Path Aliases for more information
UseDefaultName	DWORD	Use default file name (0 = no, 1 = yes)
DefaultName	STRING	Default file name (e.g. document.pdf)
OpenAcrobat	DWORD	Open output PDF in Adobe Reader after conversion (0 = no, 1 = yes)
PDF_Title	STRING	Metadata information to use for the Title
PDF_Subject	STRING	Metadata information to use for the Subject
PDF_Author	STRING	Metadata information to use for the Author
PDF_Keywords	STRING	Metadata information to use for the Keywords
PDF_SaveXMP	DWORD	Enable XMP metadata (0 = no, 1 = yes)

DownSizeImages	DWORD	Downsize image resolution to print resolution (0 = no, 1 = yes)
DownSizeResolution	DWORD	Downsize image resolution to this DPI (10 - 600)
CompressMethod	DWORD	Image compression (0 = ZIP, 1 = JPEG)
JpegQuality	DWORD	JPEG compression quality (25 = low, 50 = medium, 100 = high)
ImgConvertToCMYK	DWORD	Convert RGB colors to CMYK (0 = no, 1 = yes)
ImgRemoveDuplicates	DWORD	Remove duplicate images (0 = no, 1 = yes)
ImgUncompressByGDI	DWORD	Instructs GDI to send uncompressed images instead of PNG/JPEG images (0 = no, 1 = yes)
FontEmbed	DWORD	Font embedding (0 = Don't embed fonts, 1 = Embed all fonts, 2 = Embed necessary subset)
FontEmbedStandard	DWORD	Embed the base 14 fonts such as Arial, Times, etc. (0 = no, 1 = yes)
FontEmbedLicensed	DWORD	Embed fonts that require a license (0 = no, 1 = yes)
FontEmbedSimulated	DWORD	Embed Italic or Bold fonts that do not have an associated font file, but are simulated by the system (0 = no, 1 = yes)
PDF_Security	DWORD	Use PDF security (0 = no, 1 = yes)
SecurePDF_Level	DWORD	Encryption level (0 = 40-bit RC4, 1 = 128-bit RC4)
SecurePDF_Print	DWORD	0 = Printing not allowed 1 = Allow high resolution printing
SecurePDF_Modify	DWORD	0 = Changes not allowed 1 = Allow any changes
SecurePDF_Extract	DWORD	0 = Copying, extraction & Accessibility not allowed 1 = Allow copying of text, images, and other content
SecurePDF_Annotate	DWORD	0 = Comments and filling in form fields not allowed 1 = Allow comments and filling in form fields
SecurePDF_Owner	STRING	Password required to change permissions and passwords (can only be used with SDK_IniFile or SDK_UseKey)
SecurePDF_User	STRING	Password required to open document (can only be used with SDK_IniFile or SDK_UseKey)
PDF_Signature	DWORD	Sign the PDF with a Digital ID (0 = no, 1 = yes)
SignedPDF_Signer_Name	STRING	The friendly name of the certificate from the Windows Certificate store (e.g. John Doe)
SignedPDF_ShowImage	DWORD	Add a signature image (0 = no, 1 = yes)
SignedPDF_Image_Path	STRING	Path to the signature image (e.g. c:\sig.bmp, %Desktop%\sig.tif) see the section on Path Aliases for more information
SignedPDF_Image_Placement	DWORD	Signature image placement (0 = Manual, 1 = Automatic)
SignedPDF_Image_PosX	DWORD	Manual horizontal signature image placement (in pixels)
SignedPDF_Image_PosY	DWORD	Manual vertical signature image placement (in pixels)
SignedPDF_Image_SizeX	DWORD	Horizontal signature image size (in pixels), 0 = use image width
SignedPDF_Image_SizeY	DWORD	Vertical signature image size (in pixels), 0 = use image height
SignedPDF_Image_AutoPosHorizontal	DWORD	Automatic horizontal signature image placement (0 = Left, 1 = Center, 2 = Right)
SignedPDF_Image_AutoPosVertical	DWORD	Automatic vertical signature image placement (0 = Top, 1 = Center, 2 = Bottom)
SignedPDF_Info_Location	STRING	Location information (e.g. Jacksonville, FL USA)

SignedPDF_Info_Reason_00	STRING	Reason for signing the document (e.g. I am approving this document)
Send	DWORD	Send PDF by e-mail (0 = no, 1 = yes)
Method	DWORD	Method used to send e-mail (0 = Launch default e-mail client, 1 = Send using default e-mail client, 2 = Send directly to SMTP server)
SMTPServer	STRING	SMTP e-mail server to use (e.g. mail.server.com) Requires Method = 2
SMTPPort	DWORD	SMTP server port (e.g. 25)
UseRecips	DWORD	Send e-mail TO: recipients in the Recips value (0 = no, 1 = yes)
Recips	STRING	E-mail recipients (e.g. bob@here.com, amy@here.net)
UseSender	DWORD	Send e-mail FROM: the Sender value (0 = no, 1 = yes)
Sender	STRING	E-mail sender (e.g. print2pdf@server.com)
UseCC	DWORD	Carbon copy e-mail to recipients in the CC value (0 = no, 1 = yes)
CC	STRING	CC recipients (e.g. bob@here.com, amy@here.net)
UseSubject	DWORD	Use e-mail subject from Subject value (0 = no, 1 = yes)
Subject	STRING	E-mail subject (e.g. The document you requested)
UseMessage	DWORD	Use e-mail text from MsgText value (0 = no, 1 = yes)
MsgText	STRING	E-mail body text (e.g. Please read the attached PDF document.)
DirectMail	DWORD	Don't show e-mail client, Outlook and Outlook Express only (0 = no, 1 = yes) Requires Method = 1
UseStamp	DWORD	Insert stamp (0 = no, 1 = yes)
StampFile	STRING	The file name of the stamp to use (e.g. c:\stamp.tif)
StampMode	DWORD	Stamp mode (0 = first page, 1 = all pages)
StampPlacement	DWORD	Stamp placement (0 = Manual, 1 = Automatic)
StampPosX	DWORD	Manual horizontal stamp placement (in pixels)
StampPosY	DWORD	Manual vertical stamp placement (in pixels)
StampAutoPosHorizontal	DWORD	Automatic horizontal stamp placement (0 = Left, 1 = Center, 2 = Right)
StampAutoPosVertical	DWORD	Automatic vertical stamp placement (0 = Top, 1 = Center, 2 = Bottom)
StampSizeX	DWORD	Horizontal stamp size (in pixels), 0 = use image width
StampSizeY	DWORD	Vertical stamp size (in pixels), 0 = use image height
StampLayer	DWORD	Stamp layer (0 = Top, 1 = Bottom)
UseWatermark	DWORD	Add watermark (0 = no, 1 = yes)
WatermarkAngle	DWORD	Watermark text orientation (0 = Horizontal, 1 = Left to right diagonal, 2 = Right to left diagonal, 3 = Vertical)
WatermarkFont	STRING	Watermark font name (e.g. Arial, Verdana)
WatermarkFontSize	DWORD	Watermark font size (e.g. 36, 48, 72, and higher)
WatermarkPages	DWORD	Place watermark on which page (0 = First page, 1 = All pages)
WatermarkStrength	DWORD	Watermark visibility

		(1 – 255, 1 = invisible, 255 = visible)
WatermarkText	STRING	Watermark text, add %P to insert the current page number (e.g. Confidential, Draft, Page %P)
WatermarkLayer	DWORD	Watermark layer (0 = Top, 1 = Bottom)
ViewerPageMode	DWORD	Determines how the document is displayed in the Adobe Reader application (0 = Page Only, 1 = Bookmarks Panel and Page, 2 = Thumbnails, 3 = Full-screen)
Postprocess_MergeEnabled	DWORD	Automatically merge the contents to an existing PDF (0 = no, 1 = yes)
Postprocess_MergeMode	DWORD	Method used to merge the files (0 = Overwrite, 1 = Merge before first page, 2 = Merge after last page, 3 = Insert on page)
Postprocess_InsertOnPage	DWORD	The page to insert into Requires Postprocess_MergeMode=3
Postprocess_SaveCopyOnMerge	DWORD	Save a copy of the original file (0 = no, 1 = yes)
Postprocess_Optimize	DWORD	Attempts to regroup lines or paragraphs to make the PDF easier to edit in other applications (0 = No optimization, 1 = Line optimization)
Postprocess_AutoBookmarks	DWORD	Automatically convert titles in the document to PDF bookmarks (0 = no, 1 = yes)
Postprocess_AutoBookmarkDepth	DWORD	Number of PDF bookmark levels (e.g. 3)
Postprocess_AutoBookmarkFonts	STRING	Names of the fonts that should be selected as titles, leave blank to use automatic selection of the largest fonts (e.g. Arial)
Postprocess_AutoBookmarkStartPage	DWORD	The starting page in the document where title searching will begin (e.g. 3)
Postprocess_AutoHyperlinks	DWORD	Attempts to find text that has certain prefixes and will mark that text as a hyperlink (0 = no, 1 = yes)
Postprocess_AutoHyperlinkPrefixes	STRING	Prefixes to use (e.g. http://;https://;www.;mailto:) Requires Postprocess_AutoHyperlinks=1
Postprocess_Linearize	DWORD	Linearize the PDF for fast viewing from the web (0 = no, 1 = yes)

Print2PDF Example Settings

Here are a few Print2PDF example settings:

print2pdf.reg

Windows Registry Editor Version 5.00

```
` This configuration will save the PDF to the Desktop folder with the name FILE.PDF
` Downsize images w/ZIP compression, Do not substitute fonts, embed all fonts
` Send FILE.PDF by e-mail TO: bob@nowhere.com FROM: print2pdf@company.com via server mail.server.com
` SUBJECT: The contract you requested, E-MAIL BODY: Please read the attached PDF document.
```

```
[HKEY_CURRENT_USER\Software\Software602\Print602\2001\PDF]
"ParentWnd"=dword:00000000
"ShowDialog"=dword:00000000
"Save"=dword:00000001
"SavePath"="%Desktop%"
"Colors"=dword:00000000
"Resolution"=dword:0000012c
"Scaling"=dword:00000064
"ConvertTempCopy"=dword:00000001
"SizeUnits"=dword:00000000
"Send"=dword:00000001
"Method"=dword:00000002
"DirectMail"=dword:00000001
"UseSubject"=dword:00000000
"UseSender"=dword:00000000
"UseRecips"=dword:00000000
"UseCC"=dword:00000000
"UseMessage"=dword:00000000
"SMTPServer"="mail.server.com"
"SMTPPort"=dword:00000019
"Sender"="print2pdf@company.com"
"Recips"="bob@nowhere.com"
"CC"=""
"Subject"="The contract you requested"
"MsgText"="Please read the attached PDF document."
"UseDefaultName"=dword:00000001
"OpenAcrobat"=dword:00000000
"OutputFormatPDF"=dword:00000000
"PerPageCompression"=dword:00000001
"DownSizeImages"=dword:00000001
"DownSizeResolution"=dword:0000012c
"CompressMethod"=dword:00000000
"JpegQuality"=dword:0000005f
"ImgConvertToCMYK"=dword:00000000
"ImgRemoveDuplicates"=dword:00000001
"ImgUncompressByGDI"=dword:00000000
"FontEmbed"=dword:00000002
"FontEmbedStandard"=dword:00000000
"FontEmbedLicensed"=dword:00000001
"FontEmbedSimulated"=dword:00000000
"DefaultName"="FILE.PDF"
"Postprocess_Optimize"=dword:00000000
"Postprocess_Linearize"=dword:00000000
"Postprocess_Rotation"=dword:00000000
"Postprocess_MergeEnabled"=dword:00000000
"Postprocess_MergeMode"=dword:00000001
"Postprocess_InsertOnPage"=dword:00000001
"Postprocess_SaveCopyOnMerge"=dword:00000001
"Postprocess_OutputFileName"=""
"Postprocess_EnabledMergeResultTo"=dword:00000000
"Postprocess_MergeResultTo"=""
"Postprocess_AutoHyperlinks"=dword:00000000
"Postprocess_AutoHyperlinkPrefixes"="http://;https://;www.;mailto;;ftp://"
"Postprocess_AutoBookmarks"=dword:00000000
"Postprocess_AutoBookmarkDepth"=dword:00000003
"Postprocess_AutoBookmarkFonts"=""
"Postprocess_AutoBookmarkStartPage"=dword:00000001
"ViewerPageMode"=dword:00000000
```

print2pdf.ini

```
; This configuration will save the PDF to the My Documents folder with the name DOCUMENT.PDF
; Downsize images with JPEG compression at high quality
; Watermark the document with the word CONFEDENTIAL on all pages, bold 72pt Arial font
; right to left angle, 75 visibility
; Don't substitute fonts, embed necessary subset

[PDF]
ShowDialog=0
Save=1
SavePath=%Personal%
Colors=0
Resolution=300
Scaling=100
SizeUnits=0
Send=0
Method=0
UseDefaultName=1
OpenAcrobat=0
OutputFormatPDF=0
PerPageCompression=1
DownSizeImages=1
DownSizeResolution=300
CompressMethod=2
JpegQuality=95
ImgConvertToCMYK=0
ImgRemoveDuplicates=1
ImgUncompressByGDI=0
FontEmbed=2
FontEmbedStandard=0
FontEmbedLicensed=1
FontEmbedSimulated=0
DefaultName=DOCUMENT.PDF
Postprocess_Optimize=0
Postprocess_Linearize=0
Postprocess_Rotation=0
Postprocess_MergeEnabled=0
Postprocess_MergeMode=1
Postprocess_InsertOnPage=1
Postprocess_SaveCopyOnMerge=1
Postprocess_OutputFileName=
Postprocess_EnabledMergeResultTo=0
Postprocess_MergeResultTo=
Postprocess_AutoHyperlinks=0
Postprocess_AutoHyperlinkPrefixes=http://;https://;www.;mailto.;ftp://
Postprocess_AutoBookmarks=0
Postprocess_AutoBookmarkDepth=3
Postprocess_AutoBookmarkFonts=
Postprocess_AutoBookmarkStartPage=1
ViewerPageMode=0
PrintFormat=1
PrintOrientation=1
PrintColors=0
PrintDPI=300
PrintScale=0
```

NOTES:

- Use the Windows Calculator (View – Scientific) to convert decimals into DWORDS.
- The **PrintFormat**, **PrintOrientation**, and **PrintDPI** settings are only used during installation with the **-settings** switch.
- The passwords contained in the **SecurePDF_User**, **SecurePDF_Owner**, and **SignedPDF_Password** are in plain-text **ONLY** when used with the **SDK_IniFile** or **SDK_UseKey** option, otherwise these passwords are encrypted!
- Print2PDF will use the default e-mail client defined in the Windows Operating System (Control Panel – Internet Options – Programs).
- For completely automated e-mail sending via Outlook Express, **disable** the following option: Outlook Express – Tools – Options – Security – Warn me when other applications try to send mail as me.

Print2PDF Example Application

Below is an example for Print2PDF written in Microsoft Windows Script 5.6.

print2pdf.vbs

```
' Print2PDF Example Application
' REQUIRES: Microsoft Scripting Host Script (Requires Version 5.6 or newer),

' Constants
Const WdDoNotSaveChanges = 0
Const BaseRegistryKey = "HKEY_CURRENT_USER\Software\Software602\Print2PDF CS\2001\PDF\"
Const SDKRegistryKey = "HKEY_CURRENT_USER\Software\Software602\ Print2PDF CS \2001\PDF\SDK\"

' Startup -- Configure the Print2PDF Settings via the Windows Registry, and start the PrnPack.exe process
Sub Startup()

    Dim WSHShell
    Set WSHShell = WScript.CreateObject("WScript.Shell")

    ' Use the settings in the SDK sub-key, this value will be reset to 0 after EACH print job
    WSHShell.RegWrite BaseRegistryKey & "SDK_UseKey","1","REG_DWORD"

    ' These settings are written to the SDK sub-key
    WSHShell.RegWrite SDKRegistryKey,"","REG_SZ" ' create the SDK sub-key
    WSHShell.RegWrite SDKRegistryKey & "ShowDialog","0","REG_DWORD" ' do not show the user dialog
    WSHShell.RegWrite SDKRegistryKey & "Save","1","REG_DWORD" ' save pdf to file
    WSHShell.RegWrite SDKRegistryKey & "SavePath","c:\","REG_SZ" ' save pdf to c:\
    WSHShell.RegWrite SDKRegistryKey & "DefaultName","test.pdf","REG_SZ" ' set the default file name

    ' Uncomment the following line to manually start the PrnPack.exe process
    WSHShell.Run(WSHShell.RegRead("HKLM\Software\Software602\Print2PDF CS\InstallDir") & "\PrnPack.exe /server")

End Sub

' Print2PDF -- Converts a Word document to PDF using the Print2PDF print driver
Function Print2PDF()

    Dim wdo ' As Word.Application
    Dim wdoc ' As Word.Document
    Dim wdocs ' As Word.Documents
    Dim sPrevPrinter ' As String

    Set wdo = CreateObject("Word.Application")
    Set wdocs = wdo.Documents

    ' Open the document
    Set wdoc = wdocs.Open("c:\test.doc")

    ' Remember current active printer
    sPrevPrinter = wdo.ActivePrinter

    ' Set the active printer to Print2PDF
    wdo.ActivePrinter = "Print2PDF"

    ' Print the Word document to the Print2PDF printer
    wdoc.ActiveDocument.PrintOut False

    ' Wait for Print2PDF to finish printing before closing Word
    Do While wdoc.BackgroundPrintingStatus > 0
        ' Do nothing, just wait
    Loop

    wdoc.Close WdDoNotSaveChanges
    wdo.ActivePrinter = sPrevPrinter
    wdo.Quit WdDoNotSaveChanges
    Set wdo = Nothing

End Function

Call Startup()
Call Print2PDF()
```

Appendix

Path Aliases

Print2PDF support the following aliases for the path:

Value	Description
%Desktop%	The current logged in user's desktop folder
%Personal%	The current logged in user's personal folder (e.g. My Documents)
%My Pictures%	The current logged in user's My Pictures folder
%Templates%	The current logged in user's template folder

For a list of all variables that can be used, view the following registry key:

HKEY_CURRENT_USER\Software\Microsoft\Windows\CurrentVersion\Explorer\Shell Folders

Command Line Switches

Here is a list of all command line switches for the **PrnPack.exe** process:

Value	Description
PrnPack.exe /admin	GUI application to configure Print2PDF settings and generate defaults.ini configuration files
PrnPack.exe /config	GUI application to configure Print2PDF settings
PrnPack.exe /convert	GUI application that can convert multiple documents to PDF
PrnPack.exe /inconvert myfilelist.ini	Command line application to convert multiple documents to PDF Example: ----myfilelist.ini---- c:\document.doc c:\spreadsheet.xls c:\files\text.txt c:\images\images.jpg
PrnPack.exe /server	The Print2PDF helper application, this is REQUIRED for Print2PDF to work properly
PrnPack.exe /watch	GUI application that can convert multiple documents to PDF from watched folders or watched e-mail addresses