Canon
Professional Services

PrinterExplorer

Multi host print queue management, setup for generic drivers, the Canon Family drivers and the Lexmark Universal driver

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Introduction

The PrinterExplorer is a Windows based program used to manage and setup printer queues on different print servers in a domain environment. PrinterExplorer can display all print queue settings and the print jobs of each of these queues. Most print queue settings can be changed directly within the GUI. When creating new print queues PrinterExplorer requests device information, chooses the correct driver and creates the queue with all necessary settings all with one click. PrinterExplorer is able to set up multiple print queues from a CSV-file without any user interaction. In addition to that PrinterExplorer can deploy default driver settings to the printer drivers.
PrinterExplorer supports the Canon Generic PS and PCL driver as well as the Canon Family PS and PCL Driver.
Note: PrinterExplorer is made for the use of generic drivers. So for none Canon drivers only one driver for each vendor is used (x86 and x64).

Requirements / Restrictions

PrinterExplorer does not install printer drivers. You have to install the printer drivers for x86 and/or x64 environments manually on each server and pass the driver names in the 'PrinterExplorer.ini' file. PrinterExplorer will then use these drivers for setting up the print queues.

PrinterExplorer fully supports the drivers "Canon Generic PS3 Driver" version 1.0.x (VW-Version), the "Canon Generic PS3 Driver2" version 1.0.x , the "Canon Generic PCL6 Driver" version 1.1.x and version 3.0.2 and the "Lexmark Universal v2 XL" version 2.9.x for the Lexmark CX510 and MX610 printers only.
Since Version 2.5.0 PrinterExplorer also supports The "Canon Generic Plus PCL6 Driver" version 1.51 and the "Canon Generic Plus PS3 Driver" version 1.20.
You may also use any vendors generic drivers with this tool, but the reading and setting of device options, like for example the staple option, is only available when using the "Canon Generic PS3 Driver", the "Canon Generic PS3 Driver2", the "Canon Generic PCL6 Driver", The "Canon Generic Plus PCL6 Driver", the "Canon Generic Plus PS3 Driver" and the "Lexmark Universal v2 XL" and only for Canon and Lexmark devices. Devices and drivers from other vendors may function as well but are not tested.
Since version 2.0 PrinterExplorer also supports the Canon Family PCL5e and PS Drivers version 21.x.

PrinterExplorer needs administrative rights to run proberly. If you want to use PrinterExplorer to mangage printer queues on multiple print servers at once you need a domain adminstrative account in which PrinterExplorer has to be started.
If you want to read or set device options on other that the local server, the foreign servers has to run the "Microsoft Windows Remote Registry services" in order to get access to the registry of the foreign servers.

The PrinterExplorer configuration files are stored in the hidden "CommonAppData" folder (normally "c:\ProgramData\PrinterExplorer"). You can access this folder from the file menu in the graphical user interface.
PrinterExplorer needs to have write access to this folder. When starting the program once with the option "Run as administrator", PrinterExplorer will check and try to create these rights automatically.

Since version 2.11.0 and the SNMPv3 support PrinterExplorer needs the .Net Framework 4.0 (at least the client package) installed before program installation.

Setup

Just run the InstallShield setup and follow the instructions. PrinterExplorer will work on Windows XP up to Windows Server 2016 in x86 and x64 environments.

Base configuration

Before using the PrinterExplorer, you have to edit the PrinterExplorer.ini file in the program data directory (Menu “File” / “Open Program Data Folder”).
(e.g. c:\ProgramData\PrinterExplorer)

```
[PrinerExplorer ini-File]
Version=2.0.3

[Settings]
LocationCommentExportHeader=PrinterName;Location;Comment

GenericDriverName1=Canon Generic PS3 Driver
GenericDriverName2=Canon Generic PCL6 Driver

FamilyDriverName1=Canon iR-ADV C5235/5240 PCL5c
FamilyDriverName2=Canon LBP6680/3480 PCL5e
FamilyDriverName3=Canon LBP7680C/5280 PCL5c
FamilyDriverName4=Canon iR-ADV C2220/2230 PCL5c
FamilyDriverName5=Canon iR-ADV 400/500 PCL5e
UseCanonGenericPCL6v3=1

Language=EN
SNMPCommunity=public
SNMPv3=0
SNMPv3User=
SNMPv3Password=
OnlyShowKnownDrivers=0
SetPublished=0

[VW]
SetLexmarkAsCanon=1
UseQueueNameAsHostname=1
TruncateHostName=1
AddDomainSuffix=

UseLPRQueueNameAsHostName=0
UseCanonMode=1

[Paths]
SpoolPath=c:\windows\system32\spool\printers

[Servers]
;1=MyServer;192.168.0.10
```

The following lines have to be changed to fit to your environment:

- GenericDriverNameX
  Edit or create a line with an increasing number and the generic driver names PrinterExplorer should automatically detect. Enter one line for each vendor you want to support.
- UseCanonGenericPCL6v3
  You can only use one of the two driver versions the Canon generic PCL6 driver. By setting this option to “1” (default) PrinterExplorer works in the mode for the Generic PCL6 version 3.x. Otherwise it works in the mode for the driver version 1.1.x.
- FamilyDriverNameX
  Edit or create a line with an increasing number and the Canon Family Driver names PrinterExplorer should automatically detect. Enter one line for each Canon Family Driver you want to use.
- SNMPCommunity
  PrinterExplorer requests the device information like vendor name or device options via SNMP. If your devices use a different SNMP community other then ‘public’ you have to change this setting.
- SNMPv3, SNMPv3User, SNMPv3Password
  If the option SNMPv3 is set to “1” PrinterExplorer will only request data from the devices via SNMPv3 protocol. Entries for SNMPv3User and SNMPv3Password have to be made either. The entry for SNMPCommunity will not be used if SNMPv3 is used.
- SetPublished
  If this option is set to “1” and the printer is shared PrinterExplorer will publish the printer in the windows directory.
- SpoolPath
  Enter the spool path that is configured in your windows environment.
- [Servers]
  Enter an increasing number starting with 1 and followed by an equal sign, the name of the server you want to see in PrinterExplorer and IP address or the Hostname of your server. Enter one line for each server you want to manage. The local server is always configured automatically.
  Note: Duplicate entries of server names or IP addresses are automatically filtered out.

The Ports.ini File

When PrinterExplorer creates new printing queues it always checks if the needed printer port is just available. If not it creates the printer port.
For the port creation the “Ports.ini” file in the program data directory (Menu “File” / “Open Program Data Folder”) is used.

```
[PrinterExplorer Ports Definition File]
Version=1.6.0

[DefaultPortSettings]
;set fix values or variables. $QueueName$ and $HostName$ are allowed variables.
;PortType: 1=Raw, 2=LPR
PortType=1
;PortNumber 9100 for RAW and 515 for LPR printing:
PortNumber=9100
;if PortName is empty, the name in the port creation call is used
PortName=
;LPRQueueName is only used by LPR printing:
LPRQueueName=
;PortHostAddress: By default the PortHostAddress is the same as the Hostname of the printer.
;If it should be the address of a CDDS Server for example, you can change It here:
PortHostAddress=
SNMP=0
DoubleSpool=

[PortSettings 1]
Name=pull-printing
PortType=2
PortNumber=515
PortName=$QueueName$
LPRQueueName=pull-printing
SNMP=0
DoubleSpool=0

[PortSettings 2]
Name=direct print
PortType=2
PortNumber=515
PortName=$QueueName$
LPRQueueName=$QueueName$
SNMP=0
DoubleSpool=0
```

After setup you will find these port settings in the “Ports.ini” file. The “[DefaultPortSetting]” is used if no other port setting is defined during queue creation. It creates a RAW printing port using port 9100. You may change this setting as you need. Please follow the comments in the “Ports.ini” file.
“[PortSettings 1]” and [PortSettings 2]” are special settings for queue- and port-creation when using a CDDS server.

Detecting device options for the Canon Generic Driver

The device options of Canon devices will be automatically read during device creation or if a Canon device is chosen in the device list of the program. The device has to be online for this function.
PrinterExplorer tries to set the correct device options in the generic driver so after the automatic device creation with PrinterExplorer there is nothing more to be configured.

The PrinterExplorer reads all device options and uses a lookup table to find the corresponding option in the generic driver. The lookup table is in the PrinterExplorer data directory (Menu “File” / “Open Program Data Folder”) and is named “DeviceOptions.ini”. The generic driver options are:

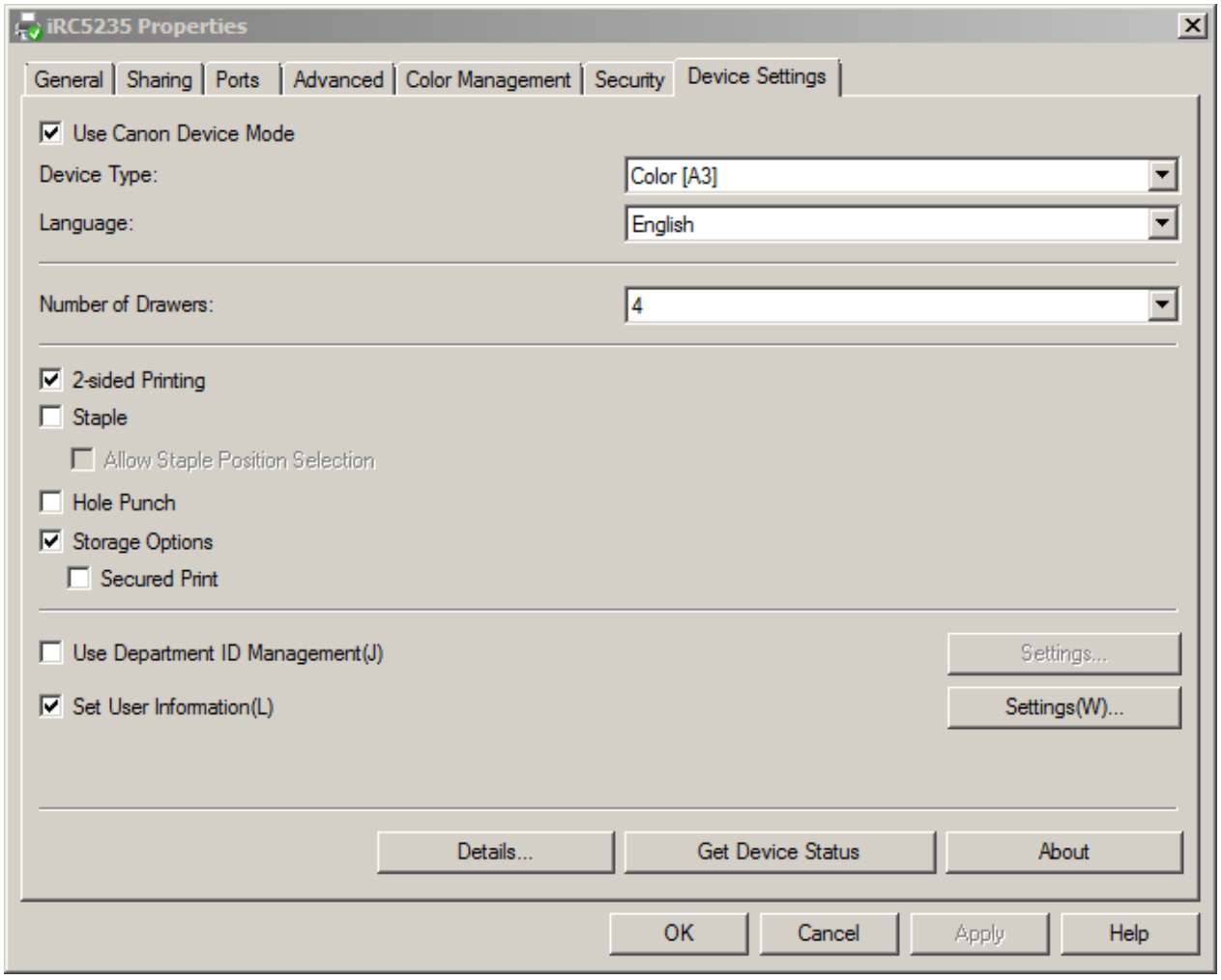


Fig. 1: Canon Generic PS Driver

The device type, 1-5 paper sources, the duplex print, stapling, hole punching, saddle stitching and mailbox print.

Example:
An iR-ADV5030 has a Canon finisher A1. This finisher is capable of stapling. So the PrinterExplorer needs to have an entry in the lookup table that the finisher A1 on an iR-ADV5030 needs the staple option to be checked in the generic driver.
The lookup table is provided with the PrinterExplorer setup. In some cases you have to append this lookup table with your device information.

To get all device options from a new device, configure and select the device in PrinterExplorer. If the device is online you will see all device options in the right bottom list:

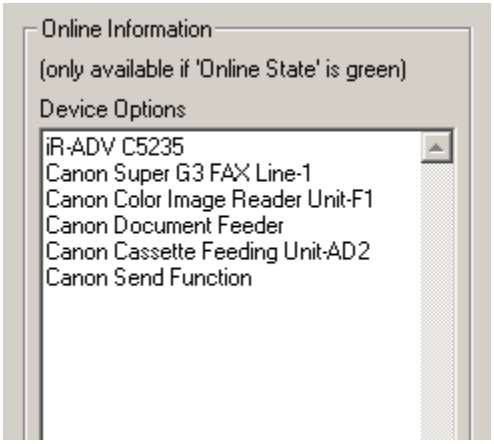


Fig 2: Online Informations

Here is an example line from the DeviceOptions.ini file from the section for the Generic Driver:
iR-ADV C50=A3c;C50~Duplex;C50~PaperSource2;C50~Mailbox;AD1~PaperSource4;Finisher-A1~Staple;Deck Unit-B1~PaperSource5;Finisher-J1~Staple;Finisher-J1~SaddleStitch;Finisher-C1~SaddleStitch;Puncher~HolePunch

Before the equal sign there is the device name. Behind the equal sign follows the device type (A4, A4c, A3 or A3c). Then there is a listing of all search words followed by the corresponding device option. All entries are delimited by a semicolon. The pair of search word and device option is delimited by a tilde sign. All possible device option strings are:
PaperSource1, PaperSource2, PaperSource3, PaperSource4, PaperSource5, Duplex, Staple, HolePunch, SaddleStitch and Mailbox.

The shown example line can be described as follows:
The device iR-ADV C50xx is an A3 color model. Because it is a C50xx it is able to make duplex prints. By default the C50xx has two paper sources. If there is a paper deck AD1 we have 4 paper sources. If there is a Deck Unit B1 we have 5 paper sources. If we have a Finisher-A1 the device is able to staple….

You can always download the newest version of the DeviceOptions.ini file from:
https://rotto.eu/files/DeviceOptions.ini

Detecting device options for the Canon Family Driver

The device options of Canon devices will be automatically read during device creation or if a Canon device is chosen in the device list of the program. The device has to be online for this function.
PrinterExplorer tries to set the correct device options in the family driver so after the automatic device creation with PrinterExplorer there is nothing more to be configured.

The PrinterExplorer reads all device options and uses a lookup table to find the corresponding option in the family driver. The lookup table is in the same file as for the generic drivers. It is located in the PrinterExplorer data directory (Menu “File” / “Open Program Data Folder”) and is named “DeviceOptions.ini”. The family driver options are depending on the selected driver for each model:

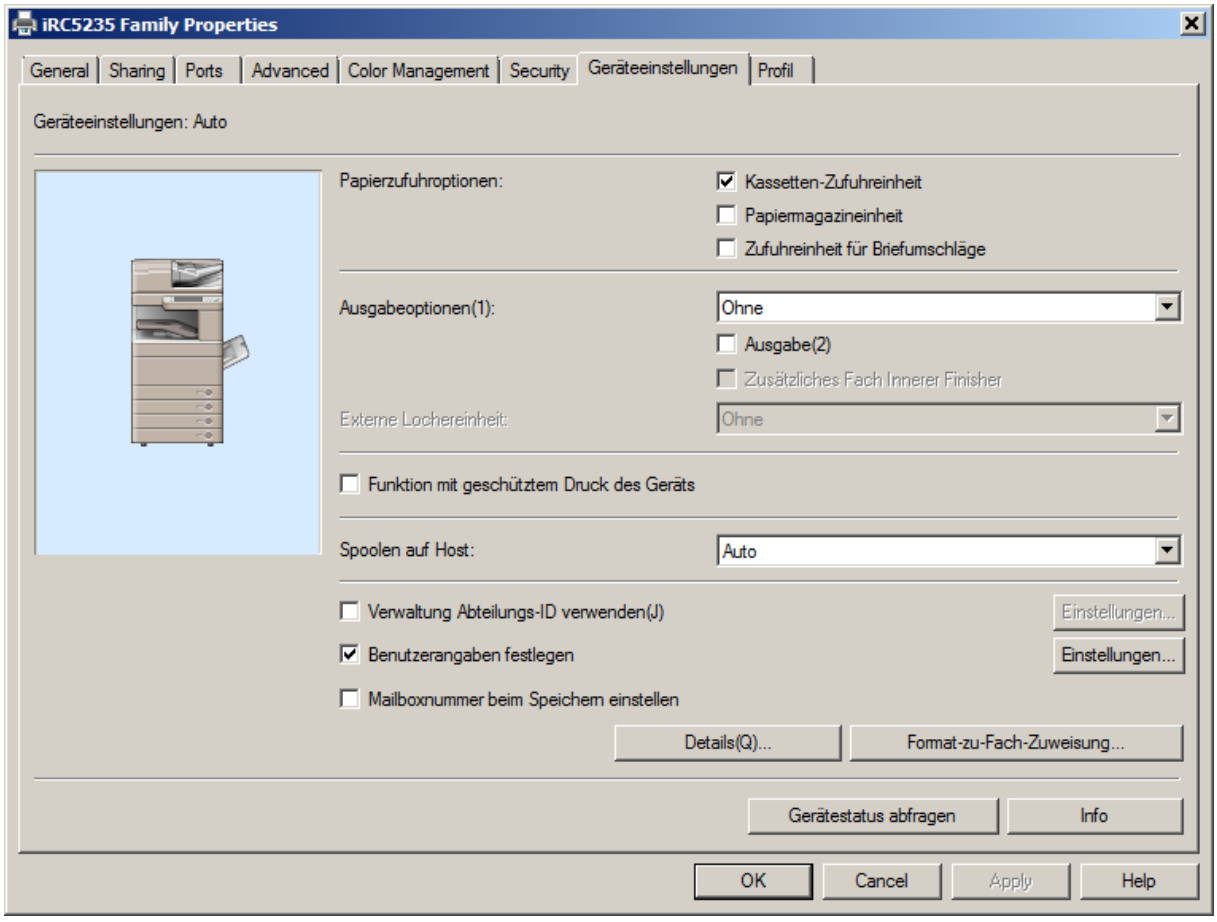


Fig. 3: Canon Family PCL Driver (here for iR-ADV C5235 in German language)

Different paper feeding units, the different finisher options, the different punching options, an out tray 2, an inner tray 2, the envelope feeder and an optional HDD.

Example:
An iR-ADV5235 has a Canon finisher A1. So the PrinterExplorer needs to have an entry in the lookup table that the finisher A1 on an iR-ADV5235 is a staple finisher. The lookup table is provided with the PrinterExplorer setup. In some cases you have to append this lookup table with your device information.

To get all device options from a new device, configure and select the device in PrinterExplorer. If the device is online you will see all device options in the right bottom list:

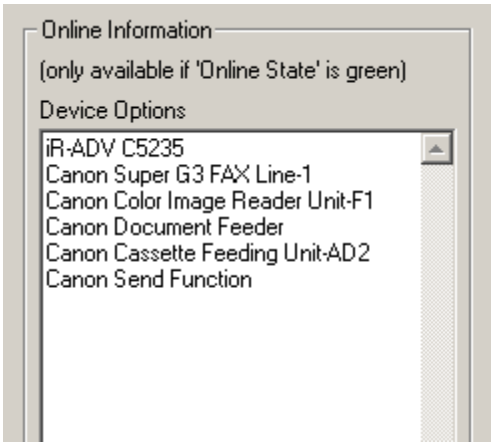


Fig 4: Online Informations

Here is an example line from the DeviceOptions.ini file from the section for the Family Driver:
iR-ADV C52=C52~PaperSource2;AD2~PaperSource4;Deck Unit-B1~PaperSource5;C52~FinishNone;Finisher-C1~FinishInner;Finisher-A1~FinishStaple;Finisher-J1~FinishBooklet;C52~PunchNone;Puncher~Punch24Hole

Before the equal sign there is the device name. Behind the equal sign there is a listing of all search words followed by the corresponding device option. All entries are delimited by a semicolon. The pair of search word and device option is delimited by a tilde sign. All possible device option strings are:
PaperSource1, PaperSource2, PaperSource3, PaperSource4, PaperSource5, FinishNone, FinishAddTray, FinishInner, FinishStaple, FinishBooklet. PunchNone, Punch2Hole, Punch23Hole, Punch24Hole, Punch4Hole, OutTray2, InnerTray2, EnvelopeFeed, HDD.

The shown example line can be described as follows:
The device entry is for an iR-ADV C52xx. By default the C52xx has two paper sources (C52~PaperSource2). If there is a paper deck AD2 we have 4 paper sources (AD2~PaperSource4). If there is a Deck Unit B1 we have 5 paper sources (B1~PaperSource5). By default the C52xx has no finisher (C52~FinishNone). If we have a Finisher-A1 the device has a staple finisher (Finisher-A1~FinishStaple). If we have a Finisher-J1 the device has a booklet finisher (Finisher-B1~FinishBooklet) ….

You can always download the newest version of the DeviceOptions.ini file from:
https://rotto.eu/files/DeviceOptions.ini

The Graphical User Interface (GUI)

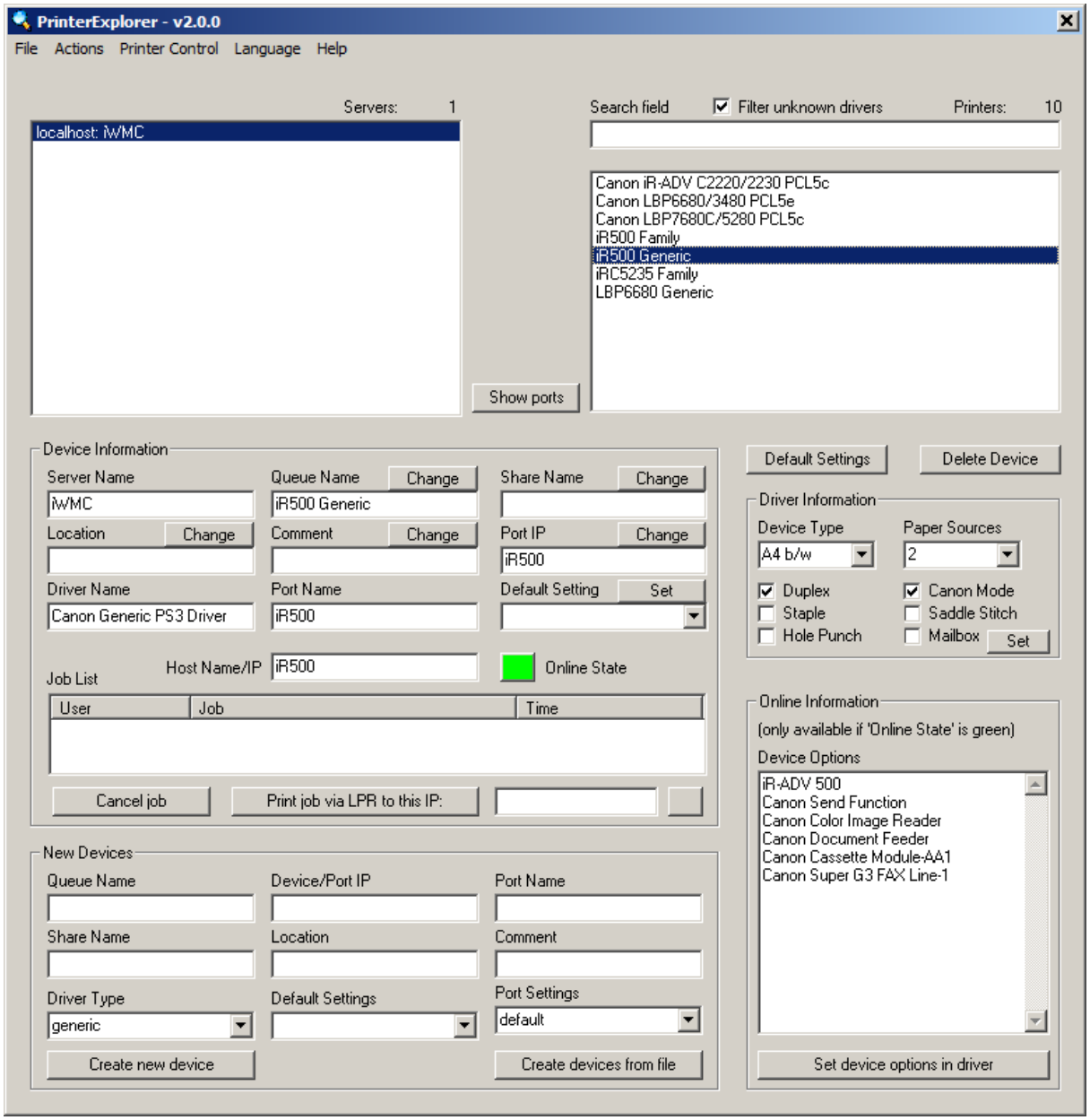


Fig. 5: The Graphical User Interface

On the top left list you will find all servers configured in the ‘PrinterExplorer.ini’ file. By selecting one or more servers from this list and pressing the ‘Read’ button all print queues of these servers are shown in the device list (upper right).
With the ‘Search field’ you can filter the printer list by typing in parts of the printer names you want to get as result. If “Filter unkown drivers” is selected, only devices matching the configured generic drivers or the Canon Family drivers will be shown.

By selecting a device in the device list, all device information will be shown in the middle section. You can change device information on those fields which have a “Change” button available. Just edit the device information and press the change button. The changes will be written to the windows queue.
If printjobs are available in the printer queue they will be shown in the “Joblist” section. You can cancel a print job by selecting it and pressing the “Cancel job” button. If you need to output a stucking print job to another device, you can type in

the IP or Hostname in the field right to the “Print job via LPR to this IP:” button and press this button. The job will be sent via LPR command to the given IP or Hostname.

On the middle right section you will see the actual device options of the driver if the selected device driver is a Canon generic or Canon Family driver. You can change each option manually by changing the option and then pressing the “Set” button.
If the device is online, PrinterExplorer will immediately read the device options from the device via SNMP and show the results in the “Online Information” frame in the lower right. You can select and copy the device options easily from here to create your own “DeviceOptions.ini” as described before.
By pressing the “Set device options in driver” button, all device options are checked against the lookup table “DeviceOptions.ini” and automatically set to the driver. The “Driver Information” section will be updated also.
Depending on the driver that is used (Canon Generic Driver or Canon Family Driver) the view of the “Driver Information” section will change.

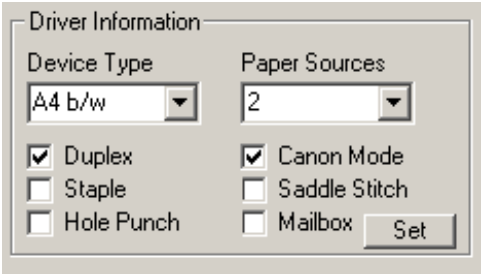


Fig. 6: Driver Information for the Generic Driver

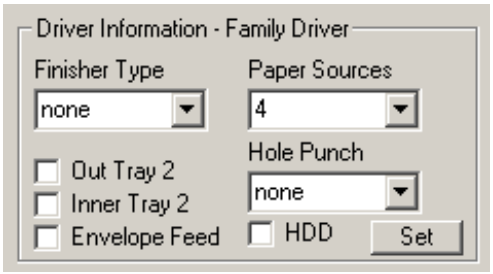


Fig. 7: Driver Information for the Family Driver

In the bottom section you are able to create new print queues manually or automatically from file (see section “Create new print queues”).

Show Ports

You can display all used printer ports on a server. By pressing the “Show ports” button the following window will open up:

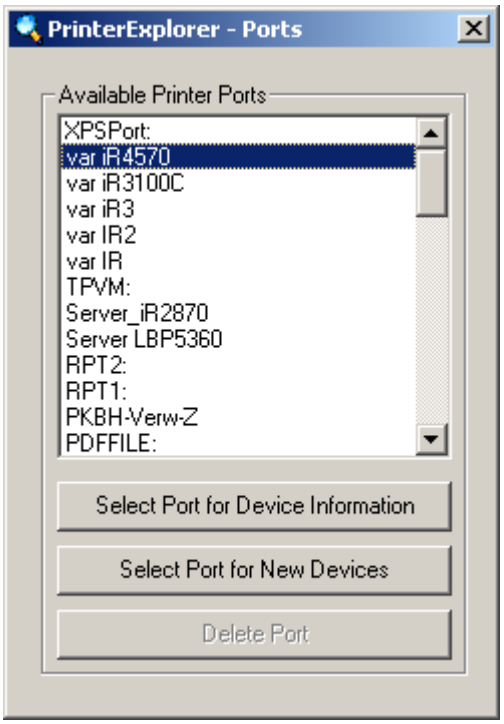


Fig. 8: Ports Window

After selecting a port, you may use the follwing functions:

“Select Port in Device informations” transfers the ports IP-Address into the “Device/Port IP” field in the “Device Information section” of the main window.

“Select Port for new device” transfers the ports IP-Address and its name into the fields “Device/Port IP” and “Portname” in the “New devices” section of the main window.

“Delete Port” deletes the selected port in windows. Only unused ports are deletable.

Default Settings

With this function you are able to manage the default settings of the printer driver. The default settings are the settings of the driver that will be transfered to a client computer if it connects to a shared printer queue.
For the Canon Generic Drivers the default settings are stored per device type. This means that there are 4 different default settings for each device type (A4 b/w, A4 col, A3 b/w, and A3 col) necessary to deploy a setting to all different print queues using the Canon Generic driver.
For the Canon Family driver and for all other device drivers there will be one setting for each driver model.

Select a device from the device list and press the “Default Settings” button. The following window will open up:

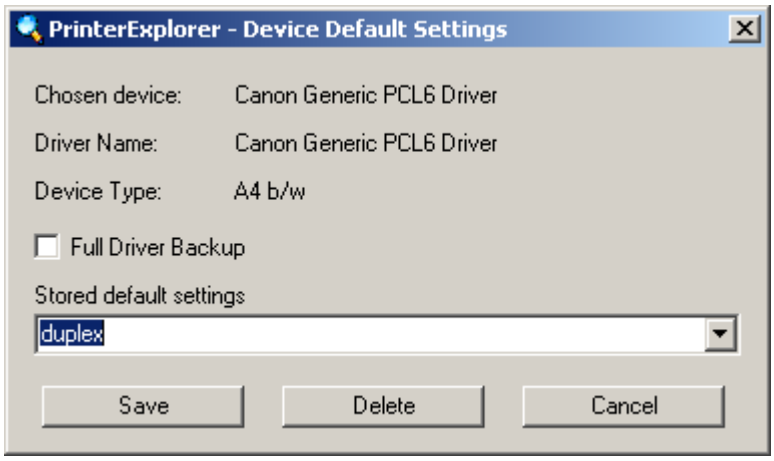


Fig 9: Default Settings Window

By pressing the drop down menu “Stored default settings” you can see if there are any default settings stored.
Note: Only default settings matching the same driver (Canon Family Driver) or the same device type (Canon Generic Driver) will be shown.

If you enter a name for a setting and press the “Save” button, the actual settings of the choosen driver will be stored to disc. The name of the setting will be build depending of the device type or the used driver automatically.

If you check the option for a ‘Full Driver Backup’ all settings of this driver will be stored to disc. A full backup includes not only the user settings but also all default options of the driver. An appendix ‘~FDB’ will be added to the settings name to show that this is a full driver backup.
Note: Writing back the Default Settings of a Full Driver Backup overwrites all device options e.g. the number of available paper cassettes of the device. Therefore you have to ensure to always update the device options after restoring a Full Driver Backup.

Example for using Default Settings:
You want to set all print queues to use duplex printing in black by default.
Change the setting of the driver please in the windows printer environment. Open each driver model, select “advanced / printing defaults” and change the settings to

duplex printing in black. Go to the PrinterExplorer, select the newly changed device and open the “Default Settings” window. Type in the name of the new setting e.g. “duplexBW” and press “Save”. All default settings including the duplex option will be stored to disc in the PrinterExplorer data directory (Menu “File” / “Open Program Data Folder”). All settings are stored in a sub directory “DefaultSettings”.

By selecting a setting from the drop down menu and pressing “Delete” the setting will be removed from disc.

You can apply the stored setting by just selecting the default setting in the “Device Information” section of the main window and then pressing the corresponding “Set” button.
You can also apply the stored default setting during the device creation by selecting the default setting in the “New Devices” section or by giving the settings name in the CSV-file during creation from file.

When creating new devices or applying bulk changes with default settings PrinterExplorer tries to find the correct setting for each driver or device type. To make this possible it is necessary to give all the settings with the same task (e.g. duplex and black printing) the same settings name, regardless of the driver or device type.

Here is an example of the folder where the default settings are stored. You can see that there are 4 settings for the Canon Generic Driver. 3 of them are holding the setting “duplexSW” . These 3 are for 3 different device types of the Canon Generic Driver (A3 col, A4 b/w, and A4 col). In addition to that the setting “duplexSW” is also stored for the Canon Family Driver “Canon iR-ADV C5234/5240 PCL5c”.

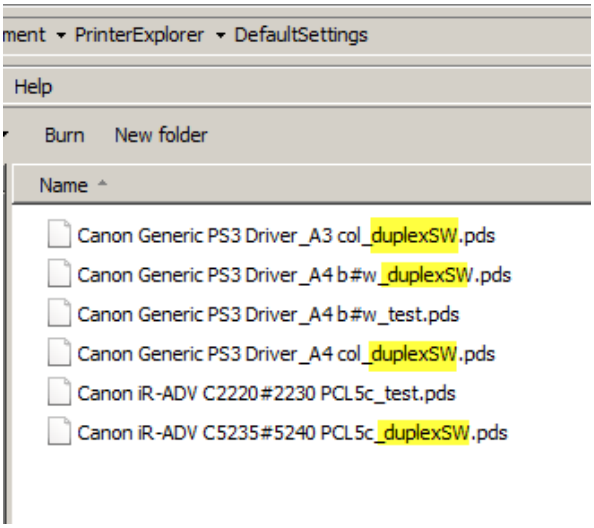


Fig. 10: Example of a default settings folder

Create new printer queues

You can create new printer queues in the “New devices” section:

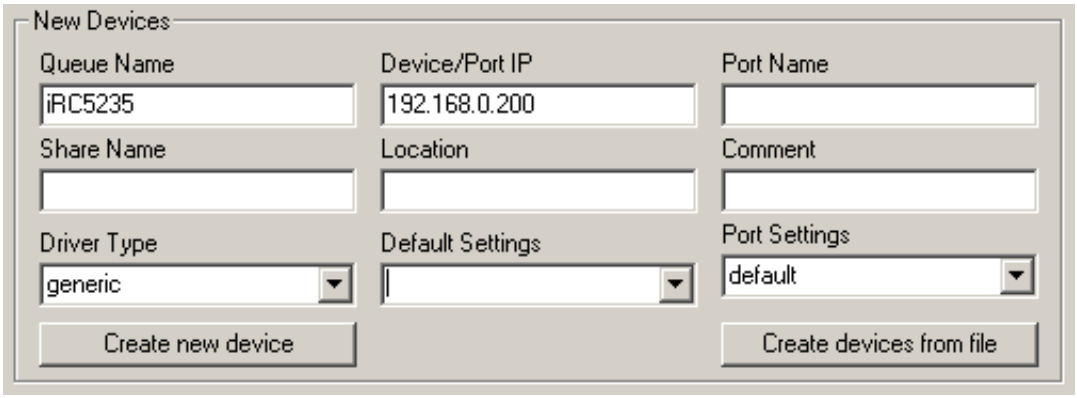
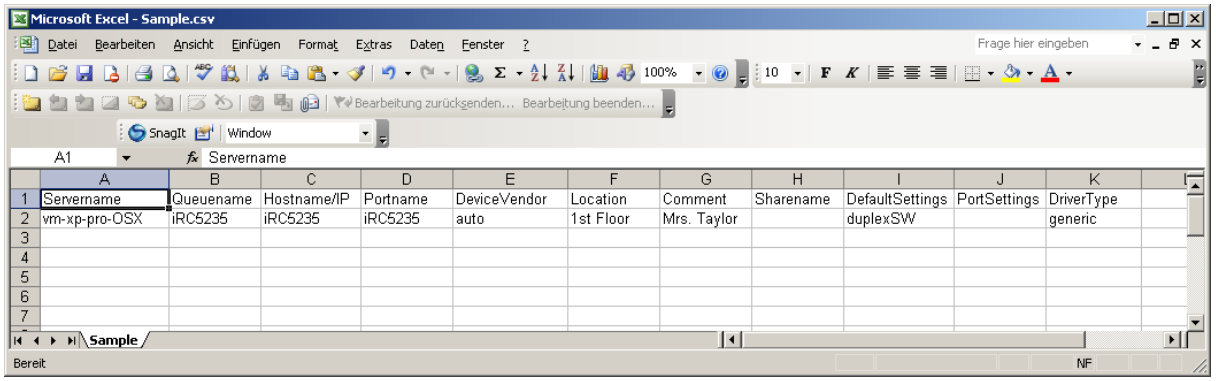


Fig. 11: New devices section

You can create a new printer queue very easily. Just enter at least the Devicename and the Device/Port IP (or host name) in the corresponding fields. By pressing “**Create new device**” the following functions will be called:

- Create a TCP/IP Port (Raw 9100) or any other port configured in the “Ports.ini” from PrinterExplorer’s data directory (menu “File” / “Open Program Data Folder”). If you have set up more than the default port setting in the “Ports.ini” you can select the setting from the “Port Settings” drop down box.
- Create a printer queue with the given name and the first generic driver from the “PrinterExplorer.ini” file if the “Driver Type” is “generic”, or
- Create a printer queue with the given name and the correct Canon Family Driver from the “PrinterExplorer.ini” file if the “Driver Type” is “family”, or
- Create a printer queue with the given name and the correct Lexmark Universal v2 XL driver from the “PrinterExplorer.ini” file if the “Driver Type” is “Lexmark”.
- Connect to the device and query the device option via SNMP.
- Set all device options if the device is in the “DeviceOptions.ini” file (Canon Generic Driver).
- If a Sharename is given, the new queue will be shared.
- If the Location is given, the location field of the new queue will be set.
- If the Comment is given, the comment field of the new queue will be set.
- If a “Default Setting” is choosen, the default settings will be applied to the new queue.

By pressing the “**Create devices from file**” button you have the possiblity to create multiple printer queues from a “.csv file” at once. All functions that are processed during the single queue creation are also processed during multiple queue creation. There is a sample file for this procedure in the PrinterExplorer program directory called “Sample.csv”:



	A	B	C	D	E	F	G	H	I	J	K
1	Servername	Queuename	Hostname/IP	Portname	DeviceVendor	Location	Comment	Sharename	DefaultSettings	PortSettings	DriverType
2	vm-xp-pro-OSX	iRC5235	iRC5235	iRC5235	auto	1st Floor	Mrs. Taylor		duplexSW		generic
3											
4											
5											
6											
7											

Fig. 12: Sample “.csv file”

The first three columns are mandatory. The other ones are optional. The full header has to be the same as in the sample file.
The default settings (if no other entry is made) for the “DeviceVendor” is “auto” and for the “DriverType” it is “generic”.

A log file is written during the automatic multiple queue creation from file. It is called “PrinterExplorer_DebugLog.txt” and is stored in the PrinterExplorer data directory (Menu “File” / “Open Program Data Folder”).
All printer queues, that could not be created correctly will be written into a file called “ErrorList.csv”. This file has the same format as the “Sample.csv” and so it could be taken for a next try creating these printer queues that failed in the first run.

Command Line Calls

Printer Explorer supports command line calls to do tasks in background started e.g. by a scheduled task.

- Set Device Options (-SDO –Option -[BWList])
  This sets the device options for Canon Generic Drivers (PS/PCL) or all Canon Family Drivers (PS/PCL) on new, all or named printer queues.
  Possible options are: -New | -All | -PrinterName
  ”New” sets the printer options on supported newly created devices which still has the default device options.
  ”All” sets the device options for all supported printer queues.
  ”PrinterName” sets the device options only for the named printer if supported.
  Optional Blacklists and Whitelists in text format are supported. If the parameter argument is starting with a “B” followed by the filename of the list the list is handled as Blacklist, if the argument starts with a “W” followed by the filename of the list it is handled as Whitelist. Blacklists and Whitelists have to be in the program data folder of Printer Explorer. They are in textformat (*.txt) having one line with a printer queue name for each printer.
  If you are providing a file named “SDO_Blacklist.txt” in the program data directory (Menu “File” / “Open Program Data Folder”) this file is used as default Blacklist. No optional argument call is needed in this case.

- Set Default Setting (-SDS -Printer -Setting [-BWList])
  This sets the default settings on all or named printer queues. The used default settings have to be defined in the Windows printer driver and saved in PrinterExplorer’s GUI first (see section “Default Settings”).
  Optional Blacklists and Whitelists in text format are supported. If the parameter argument is starting with a “B” followed by the filename of the list the list is handled as Blacklist, if the argument starts with a “W” followed by the filename of the list it is handled as Whitelist. Blacklists and Whitelists have to be in the program data folder of Printer Explorer. They are in textformat (*.txt) having one line with a printer queue name for each printer.
  If you are providing a file named “SDS_Blacklist.txt” in the program data directory (Menu “File” / “Open Program Data Folder”) this file is used as default Blacklist. No optional argument call is needed in this case.
  The SDS command can be run on all printer queues with matching printer driver or on a single printer queue with it’s name as a parameter:

  -SDS -All -Setting [-Black/Whitelist]
  Sample: -SDS -All -Duplex -BListOfExcludedDevices.txt
  -SDS -PrinterName -Setting

All Command Line Calls and the results of the calls are logged into the file “PrinterExplorer_DebugLog.txt” in the program data directory (Menu “File” / “Open Program Data Folder”).

Example 1:

Command Line Call

-SDS -All -Duplex -BListOfExcludedDevices.txt

Result in “PrinterExplorer_DebugLog.txt”:

09.01.2013 14:30:16> Command for writing DefaultSetting 'Canon_Duplex' to all matching devices detected:
09.01.2013 14:30:21> Found SDS Blacklist: ListOfExcludedDevices.txt
09.01.2013 14:30:25> Devices found in Blacklist: 1
09.01.2013 14:31:17> Applying DefaultSetting to device: GPS iRC5235
09.01.2013 14:31:18> DefaultSetting applied.
09.01.2013 14:31:21> Applying DefaultSetting to device: GPS iR2870
09.01.2013 14:31:22> DefaultSetting applied.
09.01.2013 14:31:22> Finished writing DefaultSettings to all matching devices!

Example 2:

Command Line Call

-SDO -iRC5235

Result in “PrinterExplorer_DebugLog.txt”:

29.04.2013 16:49:43> SetDeviceOptions command detected.
29.04.2013 16:49:43> Reading DeviceOptions from device: iRC5235
29.04.2013 16:49:43> Writing DeviceOptions to driver ...
29.04.2013 16:49:43> Device options written successfully.
29.04.2013 16:49:43> Finished setting DeviceOptions.

Example 3:

Command Line Call

-SDO -All -WMyWhitelist.txt

Result in “PrinterExplorer_DebugLog.txt”:

07.05.2013 22:45:13> Command for setting device options on all devices detected:
07.05.2013 22:46:26> Found SDO Whitelist: MyWhitelist.txt
07.05.2013 22:46:26> Devices found in Whitelist: 1
07.05.2013 22:46:26> Skipping device 'Lexmark GPS' because it is not on the Whitelist.
07.05.2013 22:46:26> Skipping device 'LBP6680' because it is not on the Whitelist.
07.05.2013 22:46:26> Reading DeviceOptions from device: irc5235
07.05.2013 22:46:37> Could not read DeviceOptions. Reason: ping error
07.05.2013 22:46:37> Finished setting device options for all devices!

Bulk Changes

Printer Explorer supports bulk changes on devices. These changes work like the command line calls described in the last chapter. They support the same default Blacklists and are also logging their actions in the “PrinterExplorer_DebugLog.txt”. The Bulk changes are located in the Actions Menu:

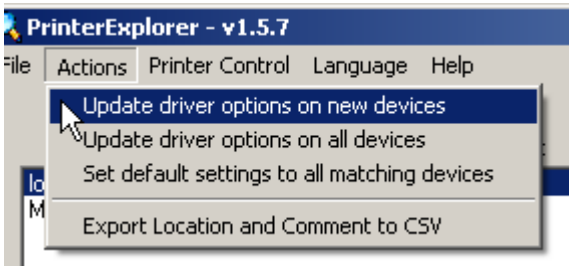


Fig. 13: Menu Actions

Update driver options on new devices

This sets the device options for Canon Generic Drivers (PS/PCL) or Canon Family Drivers (PS/PCL) or the Lexmark Universal v2 XL driver on new printer queues. New printer queues means newly created devices which still has the default device options configured.

Update driver options on all devices

This sets the device options for Canon Generic Drivers (PS/PCL) or Canon Family Drivers (PS/PCL) or the Lexmark Universal v2 XL driver on all supported printer queues.

Set default settings to all matching devices

This sets the currently selected default settings on all matching printer queues. The used default settings have to be defined in the Windows printer driver and saved in PrinterExplorer’s GUI first (see section “Default Settings”).

Supported Blacklists

If you are providing a file named “SDS_Blacklist.txt” or “SDO_Blacklist.txt” in the program data directory (Menu “File” / “Open Program Data Folder”) these files are used as default Blacklists for the above entries in the Action Menu.

Set default settings to whitelisted matching devices

This action is for testing purpose. It sets the currently selected default settings on all whitelisted printer queues. The used default settings have to be defined in the Windows printer driver and saved in PrinterExplorer’s GUI first (see section “Default Settings”).
You have to provide a file “SDS_Whitelist.txt” in the program data directory. Blacklist files will be ignored by this command.

Why is this program mandatory in VW project

Requesting the device options cannot be done by the printer driver itself, because in the VW project the printer driver is not connected directly to the printer but to the CDDS server. Furthermore the Canon Generic drivers could not request device options from the Lexmark devices.
Requesting device options can be done manually with the PrinterExplorer's GUI or automated as a command line call e.g. from a scheduled task. PrinterExplorer uses the queue name as host name and requests the device options of Canon and Lexmark devices via SNMP.

Creating the print queues with PrinterExplorer is not mandatory but might be saving a lot of time.

VW project – Special Settings

The [VW] section in the PrinterExplorer.ini file is implemented specifically for the Volkswagen project.

With the entry "UseLexmarkAsCanon=1" the Canon Generic Driver will also be used for Lexmark devices but without the "Use Canon device mode" option of the driver.

The entry "UseCanonMode=1" will set the device option "Canon Mode" in the Canon Generic Driver if a Canon device is found. By setting the entry to "UseCanonMode=0" the "Canon Mode" will always be off. This option is useful if the print queue with the Canon Generic Driver is used as pull printing queue.

"UseQueueNameAsHostName=1" will use the name of the printer queue to resolve it as the hostname of the device. This option is useful, if the printer queue is not connected directly to the output device like in the Volkswagen project.

"TruncateHostName=1" truncates all charcters after a "-" (dash) in the queue name. This option is only used with "UseQueueNameAsHostName" option.

"UseLPRQueueNameAsHostName=1" is the same as the "UseQueueNameAsHostName" option but used the LPR queue name of a used LPR port as the hostname.

Examples of queue creation for a CDDS server

If you want to create a queue in the VW project to connect to the CDDS server enter the following settings in the “PrinterExplorer.ini”:

UseLexmarkAsCanon=1
UseQueueNameAsHostName=1
TruncateHostName=1
UseLPRQueueNameAsHostName=0

For pull printing use the following settings in the “Ports.ini” file:
By default this setting is available after setup. The name of this setting is “pull-printing”.

PortType=2
PortNumber=515
PortName=$DeviceName$
LPRQueueName=pull-printing
SNMP=0
DoubleSpool=0

For direct printing use the following settings in the “Ports.ini” file:
By default this setting is available after setup. The name of this setting is “direct print”.

PortType=2
PortNumber=515
PortName=$DeviceName$
LPRQueueName=$DeviceName$
SNMP=0
DoubleSpool=0

When creating the queues, make the following entries in the PrinterExplorer GUI:

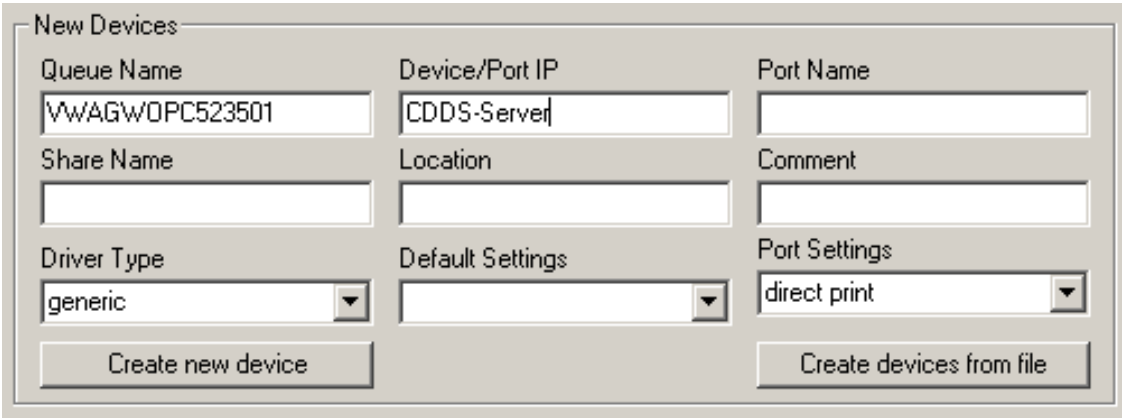
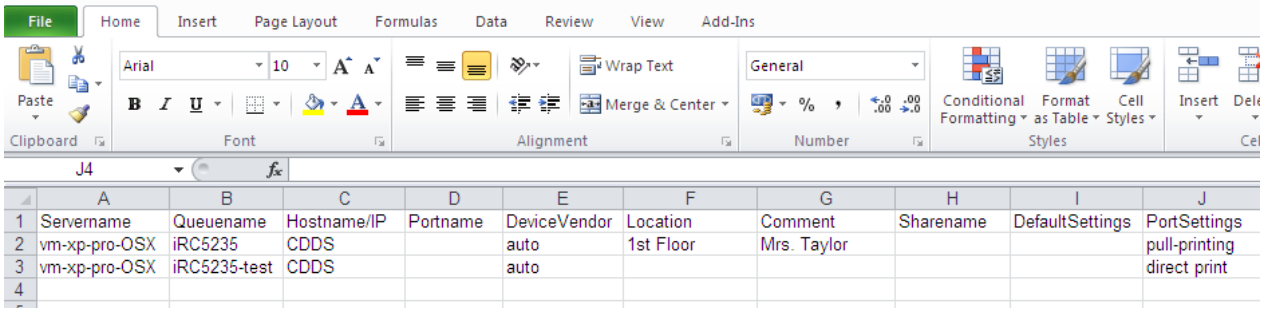


Fig. 14: Creating new devices

Please replace the Device Name with your host name of the device and the CDDS-Server entry with the host name of your CDDS server. Make sure to select the correct port settings and press the “Create new device” button.

If you want to create devices from file for use with the CDDS server you have to provide at least the server name, the queue name, the CDDS host name or IP-Address and the name of the port settings.



	A	B	C	D	E	F	G	H	I	J
1	Servername	Queuename	Hostname/IP	Portname	DeviceVendor	Location	Comment	Sharename	DefaultSettings	PortSettings
2	vm-xp-pro-OSX	iRC5235	CDDS		auto	1st Floor	Mrs. Taylor			pull-printing
3	vm-xp-pro-OSX	iRC5235-test	CDDS		auto					direct print
4										

Fig. 15: Sample CSV-File for automated queue creation

Automated bulk setting of device options with a scheduled task

If you want to keep all device options of newly installed devices updated automatically, e.g. during rollout, it is recommended to use the comand line call option of PrinterExplorer in conjunction with a scheduled task from Windows.

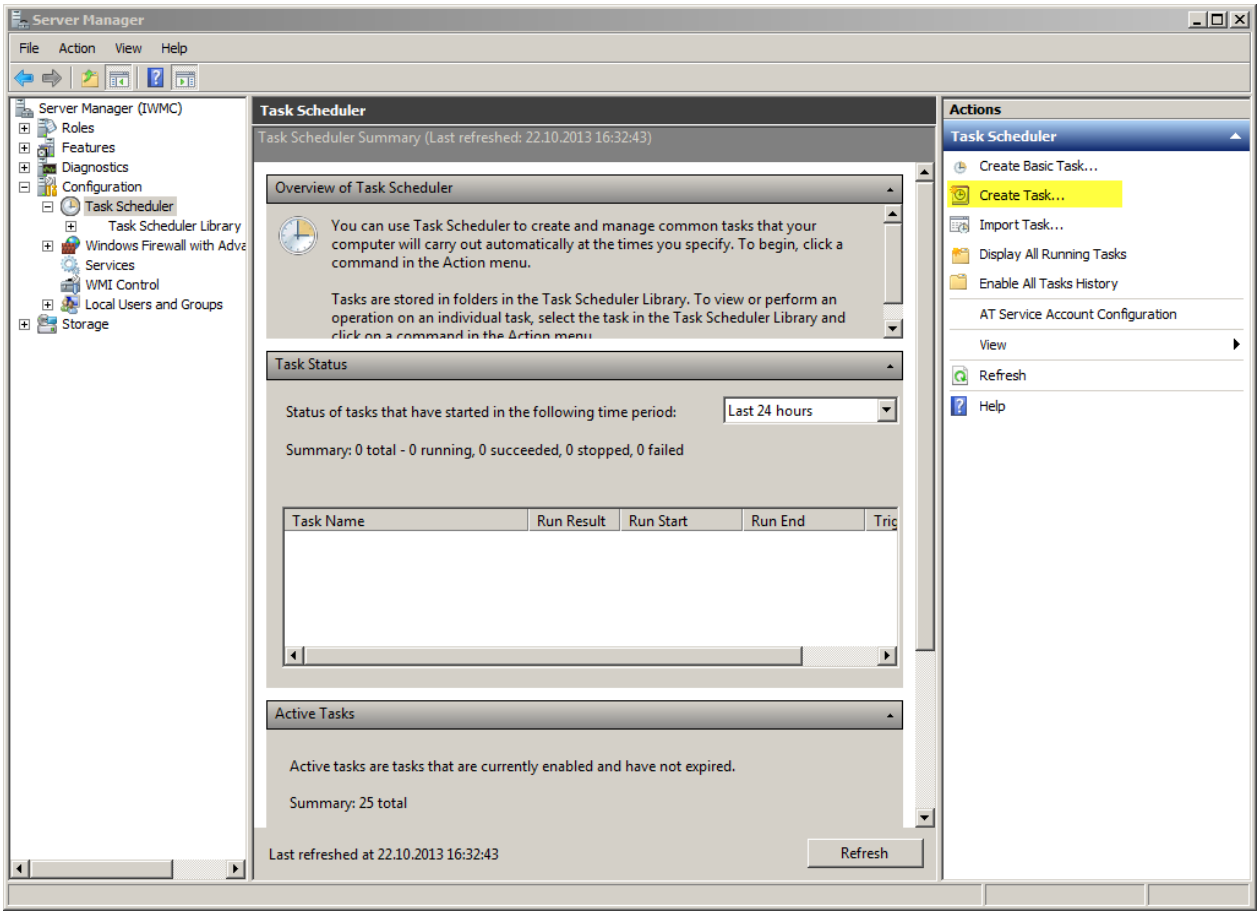
The possible command line calls are:

- SDO -New (to update device options for newly created devices)
- SDO -All (to update device options on all devices)

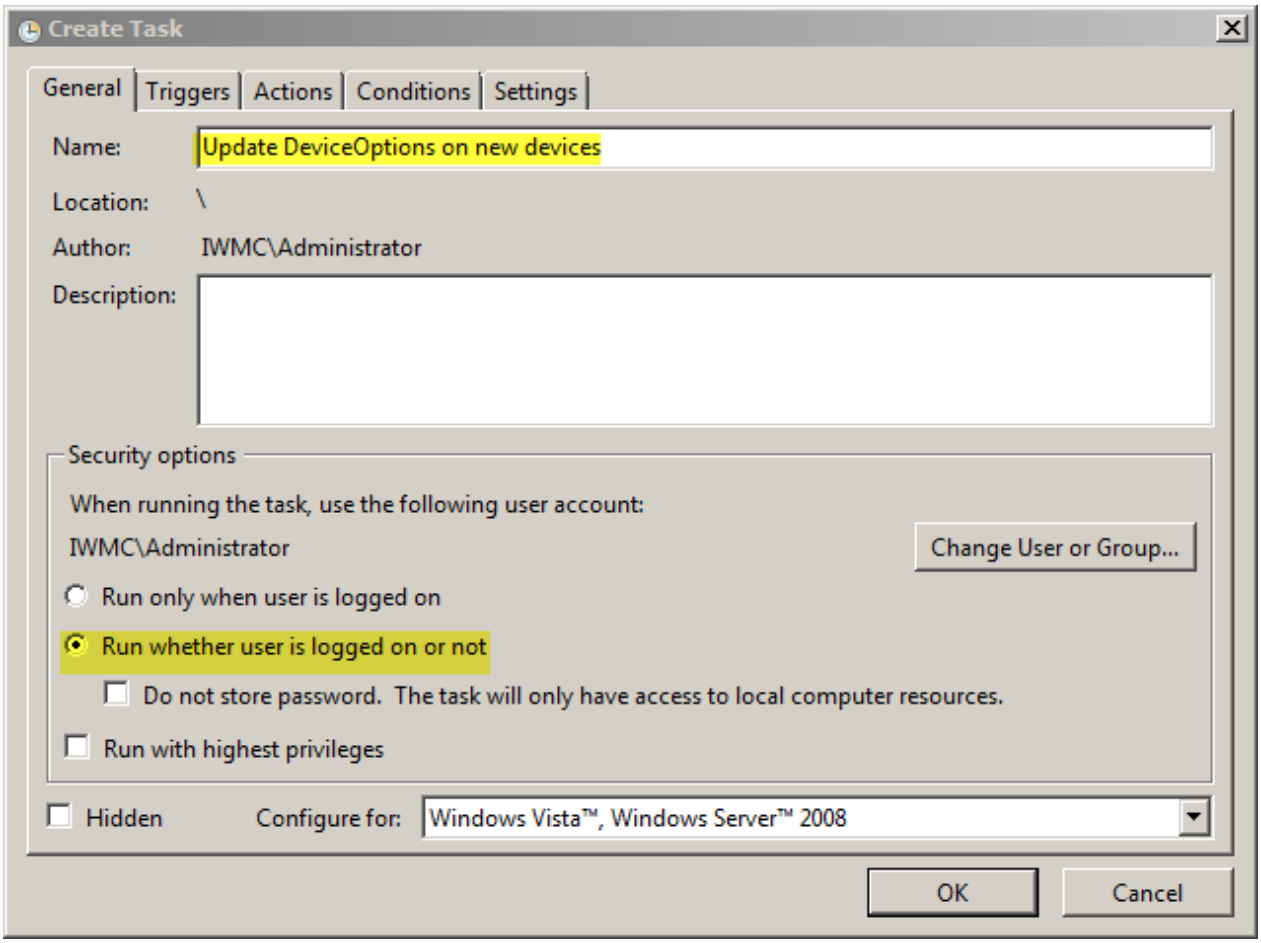
You are also able to provide Black- and Whiteliste for the bulk update. Please refer to the manual of the PrinterExplorer to get more information about this feature.

To do an automated update of all new devices once a day follow these steps:

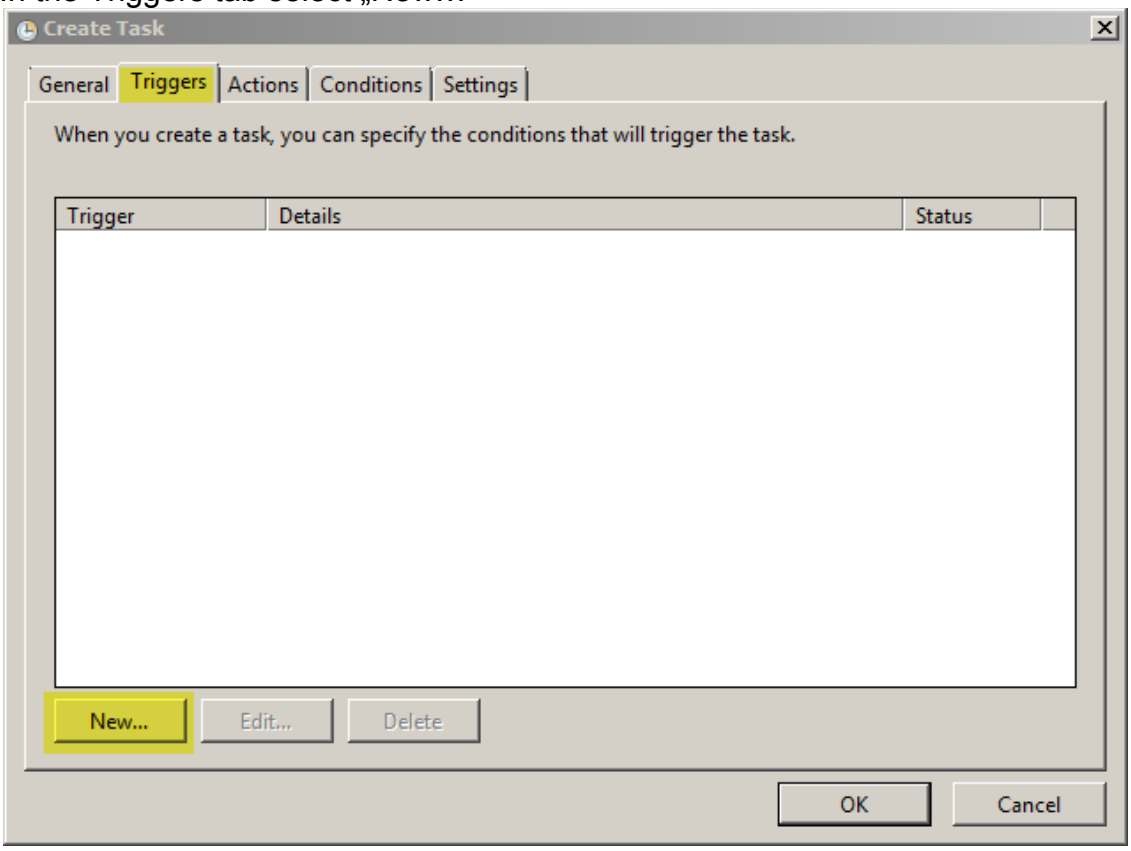
Open the Task Scheduler from Windows in the Server Manager and press “Create Task …”



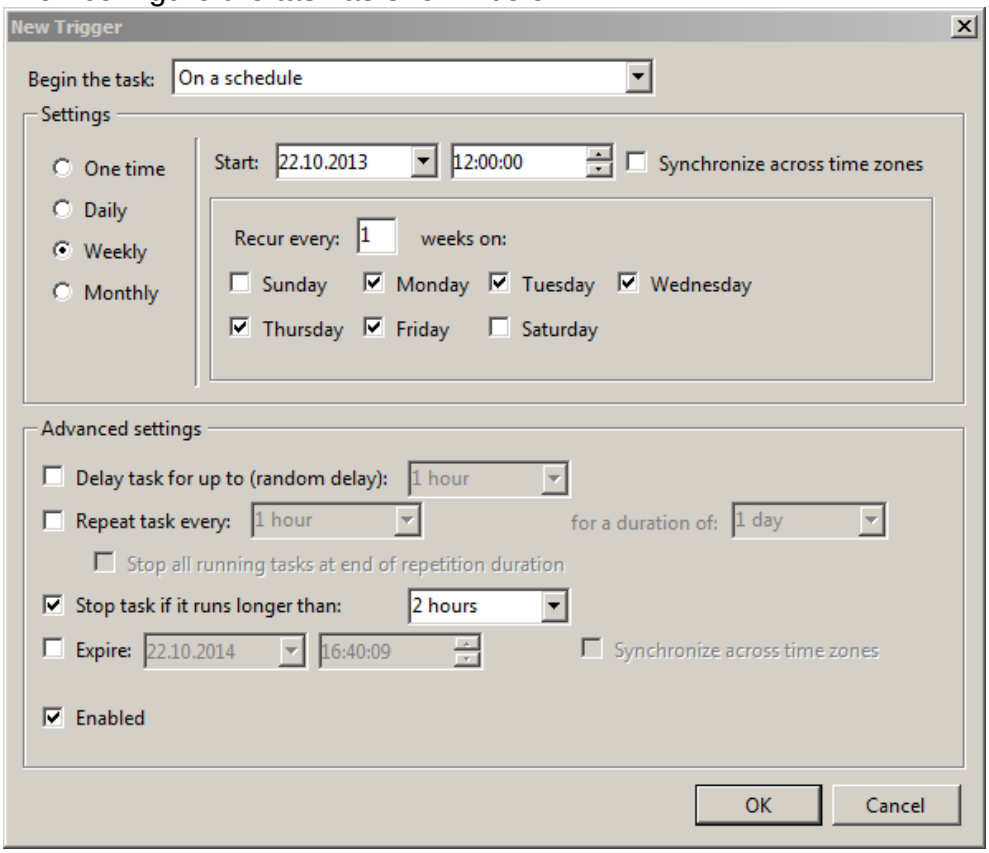
In the General tab Name the Task and select to Run the task even if no User is logged on.


Create Task
General
Triggers
Actions
Conditions
Settings
Name:
Update DeviceOptions on new devices
Location:
\
Author:
IWMC\Administrator
Description:
Security options
When running the task, use the following user account:
IWMC\Administrator
Change User or Group...
Run only when user is logged on
Run whether user is logged on or not
Do not store password. The task will only have access to local computer resources.
Run with highest privileges
Hidden
Configure for:
Windows Vista™, Windows Server™ 2008
OK
Cancel

In the Triggers tab select „New…“

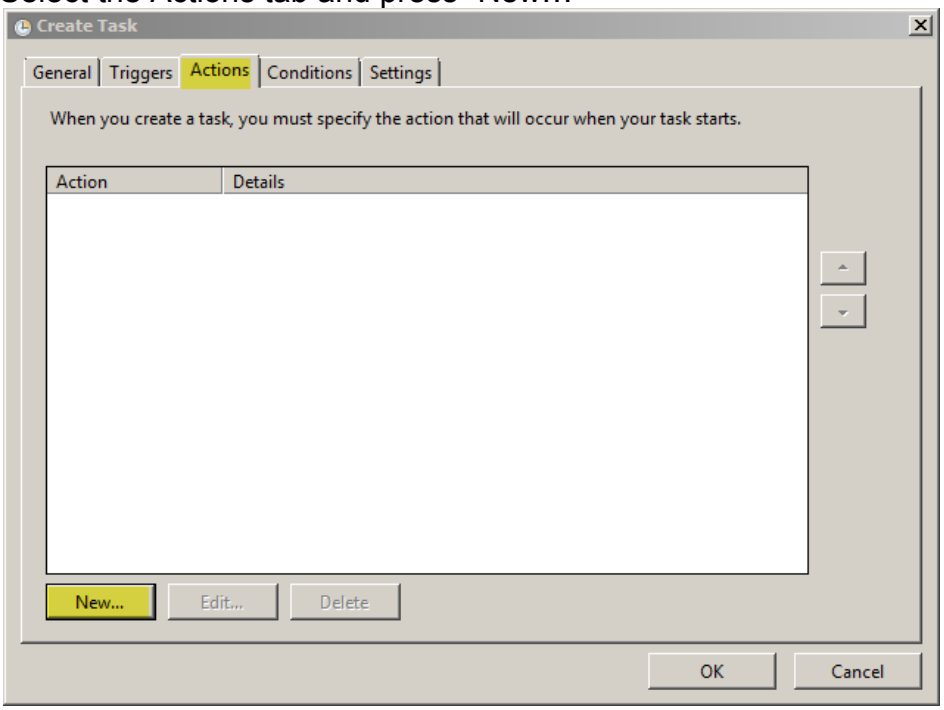


Then configure the task as shown below

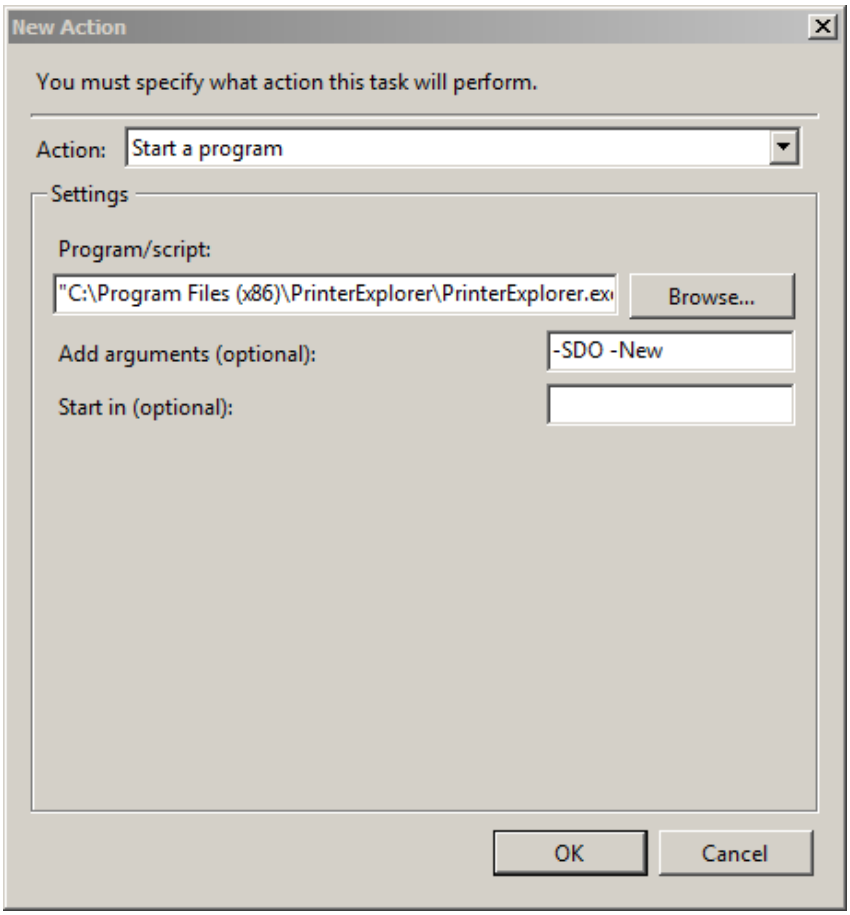


The task will run from Monday to Friday at 12 o’clock, when most devices are online. Press OK.

Select the Actions tab and press “New…”

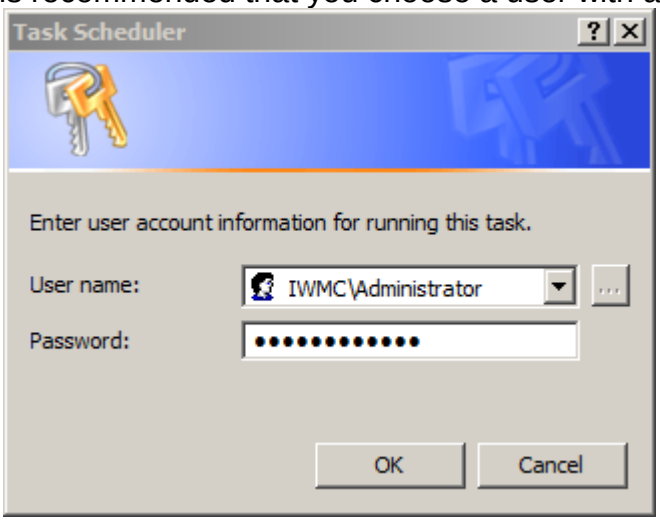


Choose the PrinterExplorer.exe as program to run and enter the correct command line call.

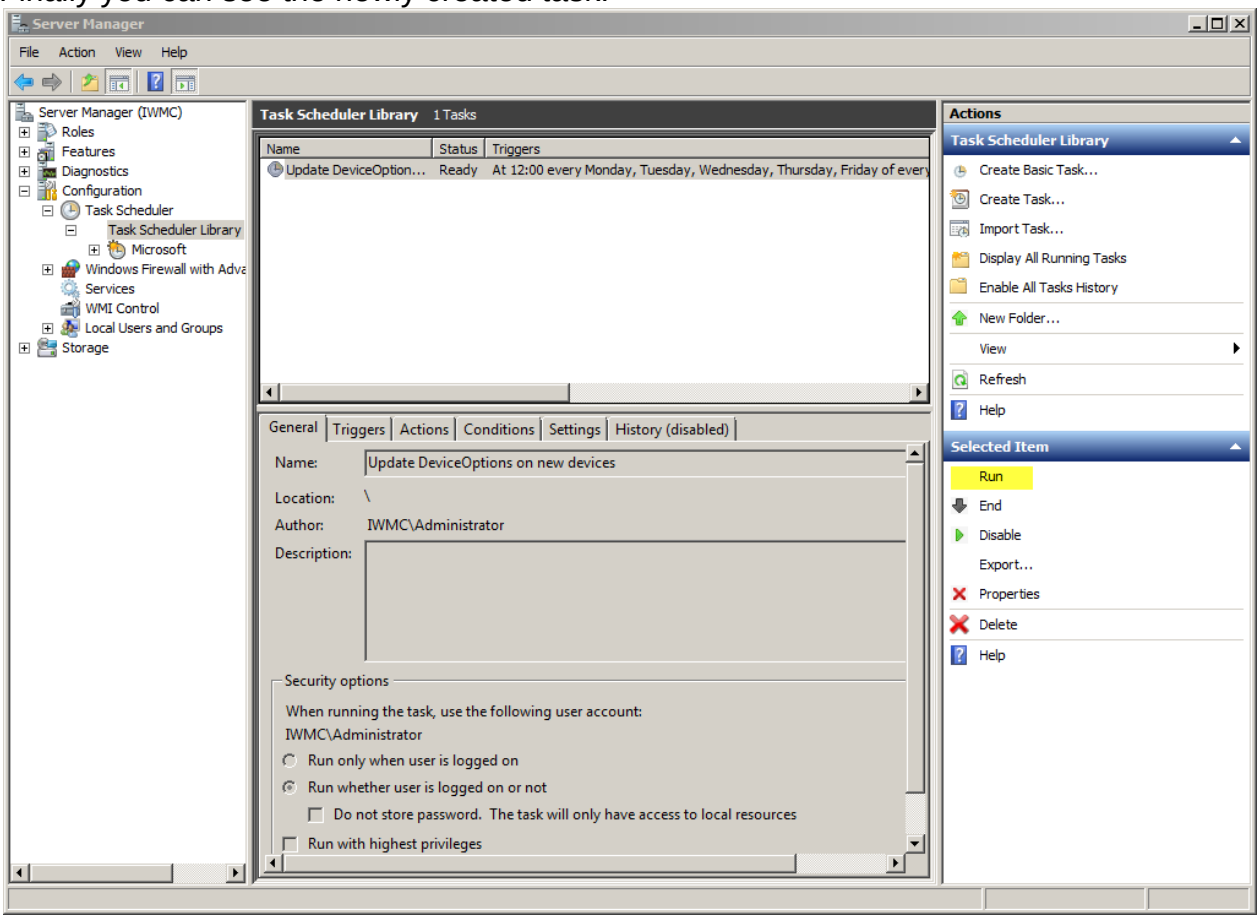


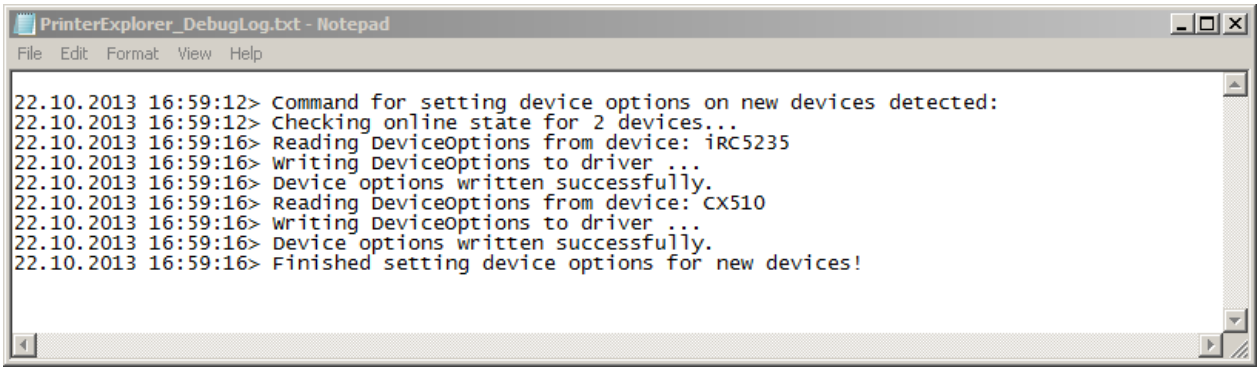
Press OK.

You are asked for the credentials of a User in whose account the task should run. It is recommended that you choose a user with administrative rights.



Finally you can see the newly created task.



Press „Run“ to do a first test of the task.

You can check the results of the task in the “PrinterExplorer_DebugLog.txt” in the program directory.