myQ X

MyQ DDI Manual

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MyQ DDI Manual

MyQ is a universal printing solution that provides a wide variety of services related to printing, copying, and scanning. All functions are integrated into a single unified system, which results in an easy and intuitive employment with minimal requirements for installation and system administration.

The main areas of application of the MyQ solution are monitoring, reporting and administration of printing devices; print, copy, and scan management, extended access to printing services via the MyQ Mobile application and the MyQ Web Interface, and simplified operation of printing devices via MyQ Embedded terminals.

In this manual, you can find all the information needed to set up the MyQ Desktop Driver Installer (MyQ DDI), which is a very useful automatic tool that enables bulk installation and configuration of MyQ printer drivers on local computers.

The guide is also available in PDF:

1   MyQ DDI Introduction

1.1   Main Reasons for MyQ DDI Installation

- For security or other reasons, it is not possible to share the printer drivers installed on the server to the network.
- Computers are not permanently available on the network, and it is necessary to install the driver as soon as it is connected to the domain.
- Users don't have sufficient rights (admin, power user) to install or connect the shared print driver themselves, or to run any installation script.
- Automatic printer driver port reconfiguration in case of MyQ server failure is required.
- Automatic change of default driver settings is required (duplex, color, staple etc.).

1.2   MyQ DDI Installation Prerequisites

- PowerShell – Minimal version 3.0
- Updated system (latest service packs etc.)
- Run script as administrator/SYSTEM in case of domain install
- Possibility to run scripts or bat files on the server/computer
- Installed and correctly configured MyQ Server
- Administrator's access to a domain server with OS Windows 2000 Server and higher. Possibility to run Group Policy Management.
- Microsoft signed printer driver(s) compatible with network connected printing devices.

1.3   MyQ DDI Installation Process

- Configure the *MyQDDI.ini* file.
- Test the MyQ DDI installation manually.
- Create and configure a new Group Policy Object (GPO) using Group Policy Management.
- Copy the MyQ DDI installation files and printer driver files to the Startup (for computer) or Logon (for user) script folder (in case of domain install).
- Assign a test computer/user to the GPO and check automatic installation (in case of domain install).
- Setup GPO rights to run MyQ DDI on the required group of computers or users (in case of domain install).

2 MyQ DDI Configuration and Manual Startup

Before uploading MyQ DDI on the domain server it is necessary to configure it correctly and run it manually on a selected test computer. The following components are necessary to correctly run MyQ DDI:

MyQDDI.ps1	MyQ DDI main script for installation
MyQDDI.ini	MyQ DDI configuration file
Printer driver files	Necessary files for the printer driver installation
Printer driver settings files	Optional file for setting up the printer driver (*.dat file)

The MyQDDI.ps1 file is located in your MyQ folder, in *C:\Program Files\MyQ\Server*, but the other files have to be manually created.

2.1 MyQDDI.ini Configuration

All the parameters necessary to be configured in MyQ DDI are placed in the MyQDDI.ini file. Within this file you can set up printer ports and printer drivers, as well as load a file with default settings of a particular driver.

2.1.1 The MyQDDI.ini structure

MyQDDI.ini is a simple script adding information about print ports and print drivers to the system registry and thereby creating new printer ports and printer drivers. It consists of several sections.

The first section serves for setting up the DDI ID. It is important when detecting whether this script is new or was already applied.

The second section serves for printer ports installation and configuration. More printer ports can be installed within a single script.

The third section serves for printer driver installation and configuration. More printer drivers can be installed within a single script.

The fourth section is not mandatory and can be useful for automatic deletion of old unused drivers. More printer ports can be uninstalled within a single script.

The MyQDDI.ini file must always be located in the same folder as MyQDDI.ps1.

```
MyQDDI.ini - Notepad                                        —   □   ✕
File  Edit  Format  View  Help
[DDIID]
DDIID=10.10.2010         DDI ID

[Port-kyo]
PortName=kyo
QueueName=kyo
Protocol=LPR
Address=%primary%              First port section
PortNumber=515
SNMPEnabled=0
SNMPCommunityName=Public
SNMPDeviceIndex=1
LPRByteCount=1

[Printer-KyoceraTest1]
PrinterName=KyoceraTest1
PrinterPort=kyo
DriverModelName=Kyocera FS-1300D KX
DriverFile=%DDI%\64bit\Vista and newer\OEMSETUP.INF    First printer section
DriverSettings=%DDI%\color.dat
DisableBIDI=No
SetAsDefault=No
RemovePrinter=No

[Port-kyo2]
PortName=kyo2
QueueName=kyo2
Protocol=LPR
Address=%primary%
PortNumber=515
SNMPEnabled=0
SNMPCommunityName=Public       Next ports and printers
SNMPDeviceIndex=1
LPRByteCount=1

[Printer-KyoceraTest2]
PrinterName=KyoceraTest2
PrinterPort=kyo2
DriverModelName=Kyocera FS-1300D KX
DriverFile=%DDI%\64bit\Vista and newer\OEMSETUP.INF
DriverSettings=%DDI%\mono.dat
DisableBIDI=No
SetAsDefault=Yes
RemovePrinter=No
```

2.1.2 DDI ID parameter

After running MyQDDI.ps1 for the first time, the new record "DDIID" is stored into the system registry. With every next run of the MyQDDI.ps1 script, the ID from the script is compared with the ID which is stored in the registry and the script is executed only if this ID is not equal. That means if you run the same script repeatedly, no changes are made in the system and the procedures of installing printer ports and drivers are not executed.

It is recommended using the date of modification as the referent DDIID number. If the value **skip** is used, then the ID check is skipped.

2.1.3 Port section parameters

The following section will install and configure the standard TCP/IP port to Windows OS.
This section contains the parameters:

- **PortName –** Name of the port, text
- **QueueName –** Name of the queue, text without spaces
- **Protocol –** Which protocol is used, "LPR" or "RAW", default is LPR

- **Address –** Address, can be hostname or IP address or if you use a CSV file, then you can use the %primary% or %% parameters
- **PortNumber –** The number of the port you want to use, LPR default is "515"
- **SNMPEnabled –** If you want to use SNMP, set it to "1", default is "0"
- **SNMPCommunityName –** Name for using SNMP, text
- **SNMPDeviceIndex –** SNMP index of device, numbers
- **LPRByteCount –** LPR byte counting, use numbers, default is "1" – turn on

2.1.4 Printer section parameters

The following section will install and configure the printer and printer driver to Windows OS by adding all the necessary information to the system, using the driver INF file and the optional configuration *.dat file. To install the driver properly, all the driver files must be available and a correct path to these files must be set within the script parameters.
This section contains the parameters:

- **PrinterName -** Name of the printer

- **PrinterPort** - Name of the printer port that will be used
- **DriverModelName** - Correct name of the printer model in the driver
- **DriverFile** - Full path to the printer driver file; you can use %DDI% to specify a variable path like: %DDI%\driver\x64\install.conf
- **DriverSettings** - Path to the *.dat file if you want to set printer settings; you can use %DDI% to specify a variable path like: %DDI%\color.dat
- **DisableBIDI** - Option to turn off "Bidirectional Support", default is "Yes"
- **SetAsDefault** - Option to set this printer as default
- **RemovePrinter** - Option to remove an old printer if necessary

2.1.5 Driver settings

This configuration file is very helpful if you want to change the default settings of the print driver and use your own settings. For example, if you want the driver to be in monochrome mode and set the duplex print as default.

To generate the dat file, you need to install the driver on any PC first and configure the settings to the status you want. The driver must be the same as the one you will install with MyQ DDI!

After you set up the driver, run the following script from the command line:

rundll32 printui.dll PrintUIEntry /Ss /n "MyQ mono" /a "C:\DATA\monochrome.dat" g u d r

Just use the correct driver name (parameter /n) and specify the path (parameter /a) to where you want to store the .dat file.

2.2 MyQDDI.csv file and structure

Using MyQDDI.csv file, you can setup variable IP addresses of the printer port. The reason is to automatically reconfigure the printer port if the user changes the location with their laptop and connects to a different network. After the user switches on the computer or logs in to the system (it depends on the GPO setting), MyQDDI detects the IP range and on this basis, it changes the IP address in the printer port so that the jobs are sent to a correct MyQ server. If the Primary IP address is not active, then the Secondary IP is used. The MyQDDI.csv file must always be located in the same folder as MyQDDI.ps1.

	A	B	C	D	E
1	RangeFrom	RangeTo	Primary	Secondary	Comments
2	192.168.1.1	192.168.1.250	20.20.20.20	30.30.30.30	This is first comment
3	10.14.5.1	10.14.5.140	80.80.80.80	10.14.4.200	This is second comment
4					

- **RangeFrom -** The IP address that starts the range
- **RangeTo** - The IP address that ends the range
- **Primary** - The IP address of MyQ server; for the .ini file, use the %primary% parameter

- **Secondary** - IP that is used if primary IP is not active; for the .ini file, use the %secondary% parameter
- **Comments** - Comments can be added here by the customer

2.3 MyQDDI Manual Run

Before you upload the MyQDDI to the domain server and run it by login or startup, it is strictly recommended to run the MyQDDI manually on one of the PCs to confirm the drivers are installed correctly.

Before you run the script manually, be sure to setup the MyQDDI.ini and MyQDDI.csv. After you execute the MyQDDI.ps1 file, the MyQDDI window appears, all the operations specified in the MyQDDI.ini file are processed and information about every step is displayed on the screen.

MyQDDI.ps1 must be launched as administrator from PowerShell or the command line console.

From PowerShell:

start PowerShell -verb runas -argumentlist "-executionpolicy Bypass","& 'C:\Users\dvoracek.MYQ\Desktop\Standalone DDI\MyQDDI.ps1'"

From CMD:

PowerShell -NoProfile -ExecutionPolicy Bypass -Command "& {Start-Process PowerShell -ArgumentList '-NoProfile -ExecutionPolicy Bypass -File """"C:\Users\dvoracek.MYQ\Desktop\Standalone DDI\MyQDDI.ps1"""" ' -Verb RunAs}":

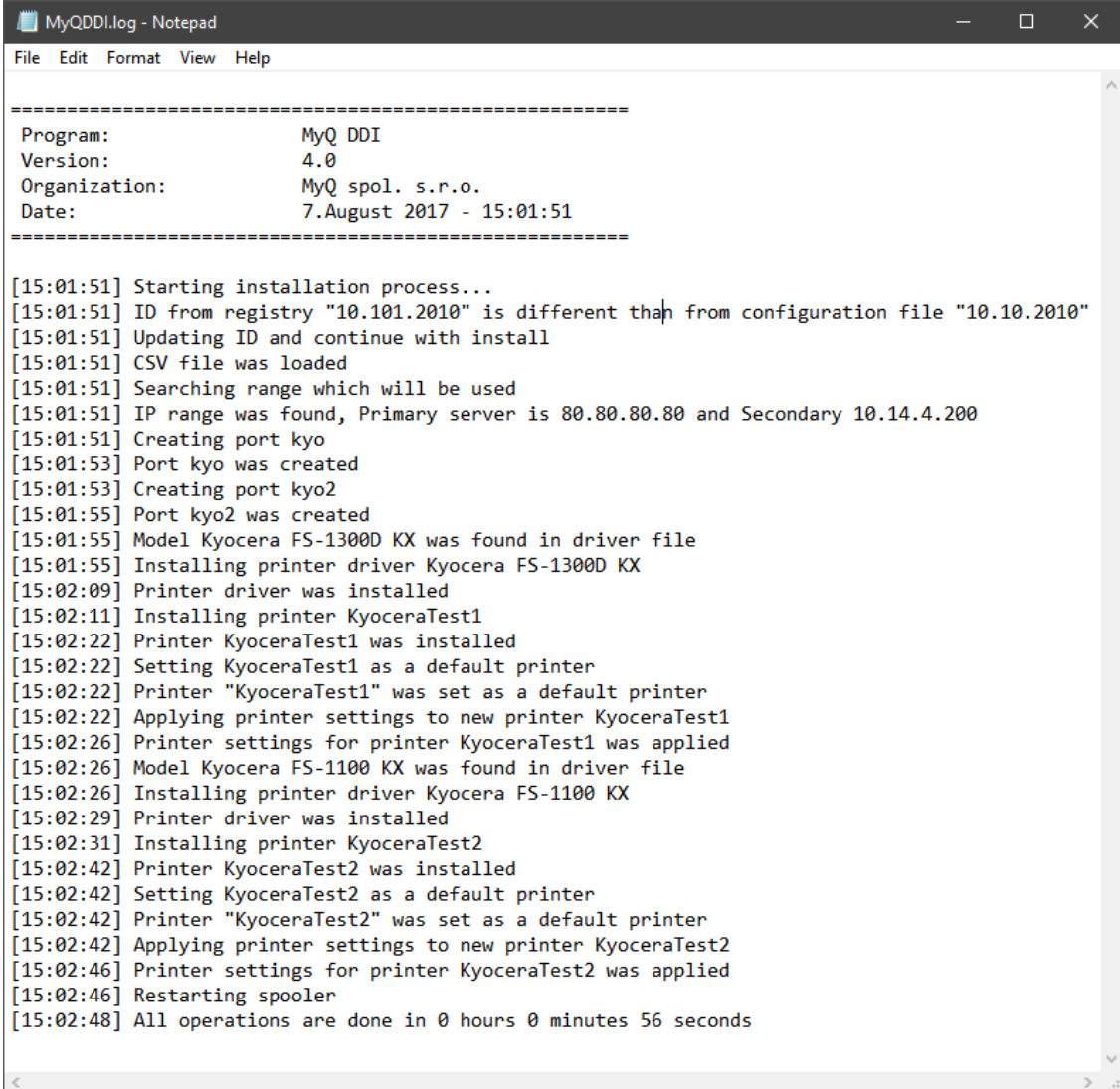**Or use the attached *.bat file which must be in the same path as the script.**

```
DDI - Desktop Driver Installer                                    —  □  ×

=======================================================
Program:          MyQ DDI
Version:          4.0
Organization:     MyQ spol. s.r.o.
Date:             7.August 2017 - 15:01:51
=======================================================

[15:01:51] Starting installation process...
[15:01:51] ID from registry "10.101.2010" is different than from configuration file "10.10.2010"
[15:01:51] Updating ID and continue with install
[15:01:51] CSV file was loaded
[15:01:51] Searching range which will be used
[15:01:51] IP range was found, Primary server is 80.80.80.80 and Secondary 10.14.4.200
[15:01:51] Creating port kyo
[15:01:53] Port kyo was created
[15:01:53] Creating port kyo2
[15:01:55] Port kyo2 was created
[15:01:55] Model Kyocera FS-1300D KX was found in driver file
[15:01:55] Installing printer driver Kyocera FS-1300D KX
[15:02:09] Printer driver was installed
[15:02:11] Installing printer KyoceraTest1
[15:02:22] Printer KyoceraTest1 was installed
[15:02:22] Setting KyoceraTest1 as a default printer
[15:02:22] Printer "KyoceraTest1" was set as a default printer
[15:02:22] Applying printer settings to new printer KyoceraTest1
[15:02:26] Printer settings for printer KyoceraTest1 was applied
[15:02:26] Model Kyocera FS-1100 KX was found in driver file
[15:02:26] Installing printer driver Kyocera FS-1100 KX
[15:02:29] Printer driver was installed
[15:02:31] Installing printer KyoceraTest2
[15:02:42] Printer KyoceraTest2 was installed
[15:02:42] Setting KyoceraTest2 as a default printer
[15:02:42] Printer "KyoceraTest2" was set as a default printer
[15:02:42] Applying printer settings to new printer KyoceraTest2
[15:02:46] Printer settings for printer KyoceraTest2 was applied
[15:02:46] Restarting spooler
[15:02:48] All operations are done in 0 hours 0 minutes 56 seconds
```

To see if all the operations were successful, you can also check the MyQDDI.log.

```
MyQDDI.log - Notepad                                                    —    □    ✕
File  Edit  Format  View  Help

========================================================
Program:              MyQ DDI
Version:              4.0
Organization:         MyQ spol. s.r.o.
Date:                 7.August 2017 - 15:01:51
========================================================

[15:01:51] Starting installation process...
[15:01:51] ID from registry "10.101.2010" is different than from configuration file "10.10.2010"
[15:01:51] Updating ID and continue with install
[15:01:51] CSV file was loaded
[15:01:51] Searching range which will be used
[15:01:51] IP range was found, Primary server is 80.80.80.80 and Secondary 10.14.4.200
[15:01:51] Creating port kyo
[15:01:53] Port kyo was created
[15:01:53] Creating port kyo2
[15:01:55] Port kyo2 was created
[15:01:55] Model Kyocera FS-1300D KX was found in driver file
[15:01:55] Installing printer driver Kyocera FS-1300D KX
[15:02:09] Printer driver was installed
[15:02:11] Installing printer KyoceraTest1
[15:02:22] Printer KyoceraTest1 was installed
[15:02:22] Setting KyoceraTest1 as a default printer
[15:02:22] Printer "KyoceraTest1" was set as a default printer
[15:02:22] Applying printer settings to new printer KyoceraTest1
[15:02:26] Printer settings for printer KyoceraTest1 was applied
[15:02:26] Model Kyocera FS-1100 KX was found in driver file
[15:02:26] Installing printer driver Kyocera FS-1100 KX
[15:02:29] Printer driver was installed
[15:02:31] Installing printer KyoceraTest2
[15:02:42] Printer KyoceraTest2 was installed
[15:02:42] Setting KyoceraTest2 as a default printer
[15:02:42] Printer "KyoceraTest2" was set as a default printer
[15:02:42] Applying printer settings to new printer KyoceraTest2
[15:02:46] Printer settings for printer KyoceraTest2 was applied
[15:02:46] Restarting spooler
[15:02:48] All operations are done in 0 hours 0 minutes 56 seconds
```

2.4 MyQ Print Driver Installer

This script is also used in MyQ for print driver installation in the MyQ web administrator interface from the **Printers** main menu and from the **Printer Discovery** settings menu:

For the print driver settings it is necessary to create the .dat file:

This configuration file is very helpful if you want to change the default settings of the print driver and use your own settings. For example, if you want the driver to be in monochrome mode and set the duplex print as default.

To generate the .dat file, you need to install the driver on any PC first and configure the settings defaults to the status you want. The driver must be the same as the one you will install with MyQ DDI!

After you set up the driver, run the following script from the command line:
rundll32 printui.dll PrintUIEntry /Ss /n "MyQ mono" /a "C: \DATA\monochrome.dat" g u d r

Just use the correct driver name (parameter /n) and specify the path (parameter /a) to where you want to store the .dat file.

Limitations

The TCP/IP monitor port on Windows **has a limitation** for the length of the **LPR Queue name**.

- The length is a maximum of 32 chars.
- The queue name is set by the printer name in MyQ, so if the printer name is too long then:
    - The name of the queue should be shortened to a maximum of 32 chars. To avoid duplications, we use the ID of the printer related to the direct queue, convert the ID to 36-base and append to the end of the queue name.
    - **Example:** Lexmark_CX625adhe_75299211434564.5464_foo_booo and ID 5555 **converted to** Lexmark_CX625adhe_7529921143_4AB

3 MyQ DDI Implementation to a Domain Server

On the domain server, run the Group Policy Management application from the Windows Start menu. You can alternatively use the *[Windows + R]* key and *run gpmc.msc* .

## 3.1 Creating a new Group Policy Object (GPO)

Create a new GPO over the group of all the computers/users you want to use MyQ DDI for. It is possible to create a GPO directly on the domain, or on any subordinate Organization Unit (OU). It is recommended to create the GPO on the domain; if you want to apply to selected OUs only, you can do it later in the next steps.
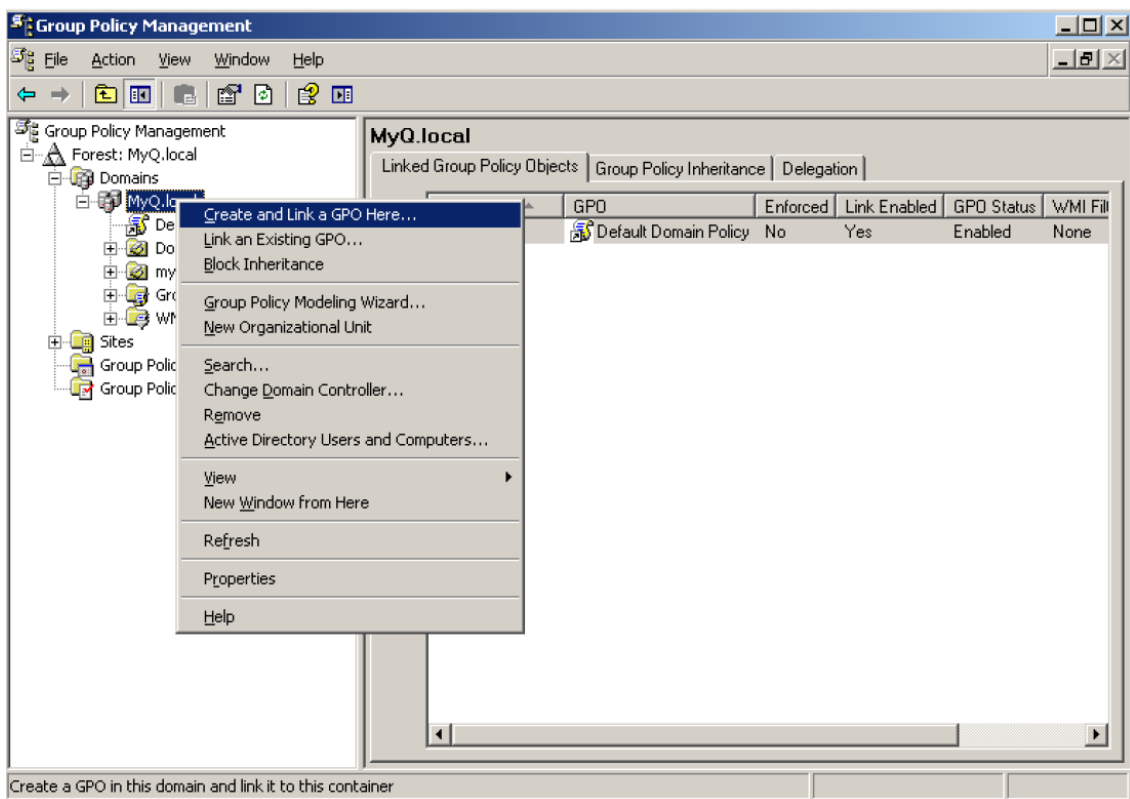
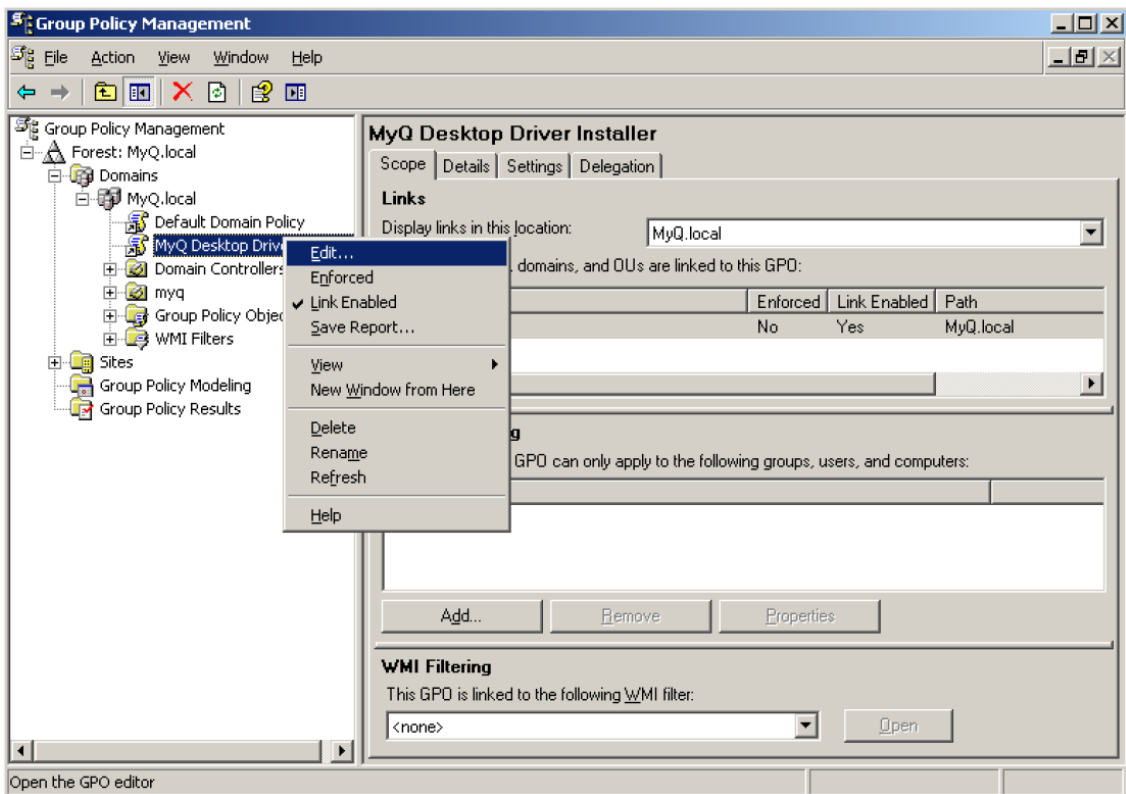After you click on **Create and Link a GPO Here...**, enter a name for the new GPO.
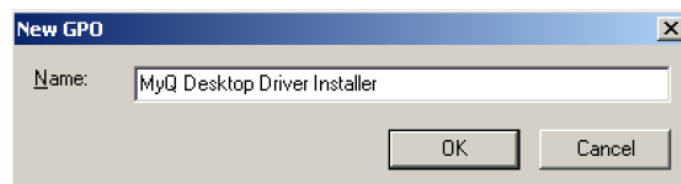
The new GPO appears as a new item in the tree on the left side of the Group Policy Management window. Select this GPO and in the Security Filtering section, right click on *Authenticated Users* and select **Remove**.
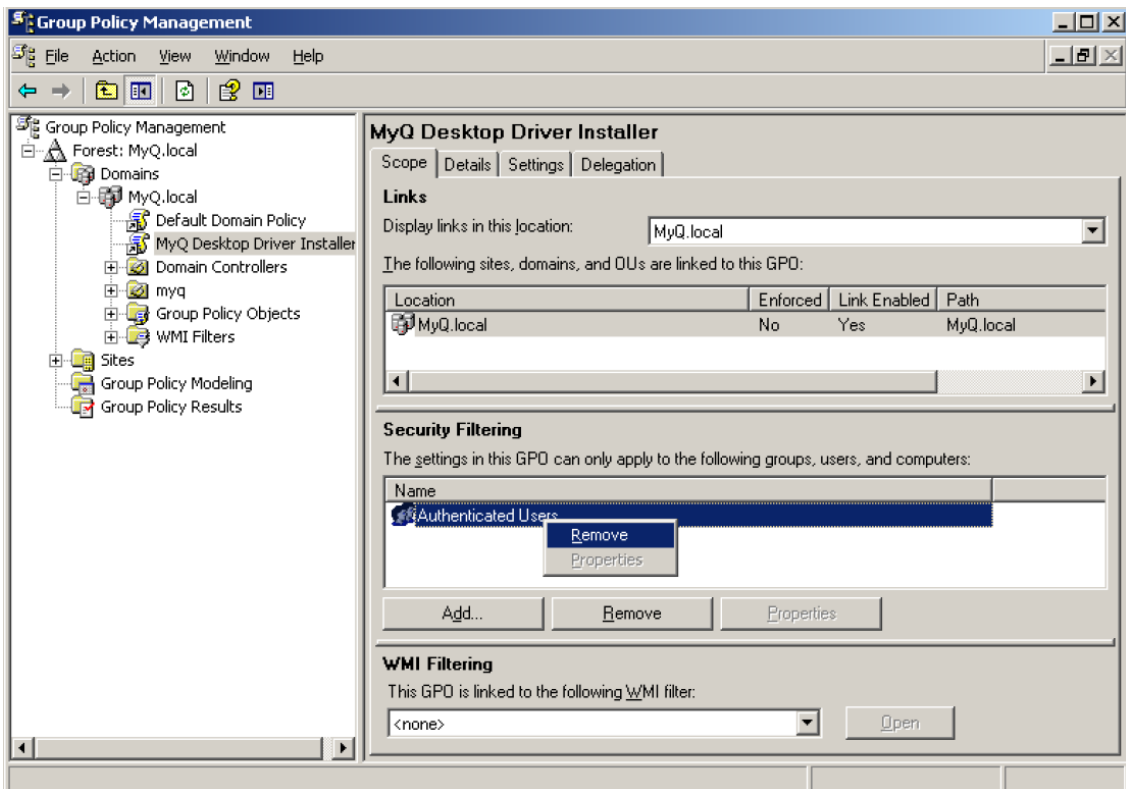
3.1.1 Modifying Startup or Logon script

Right click on the GPO and select **Edit**.

Now you can select if you want to run the script upon the computer's startup or the user's login. It is recommended to run MyQ DDI upon the computer's startup, so we will use it in the example in the next steps.
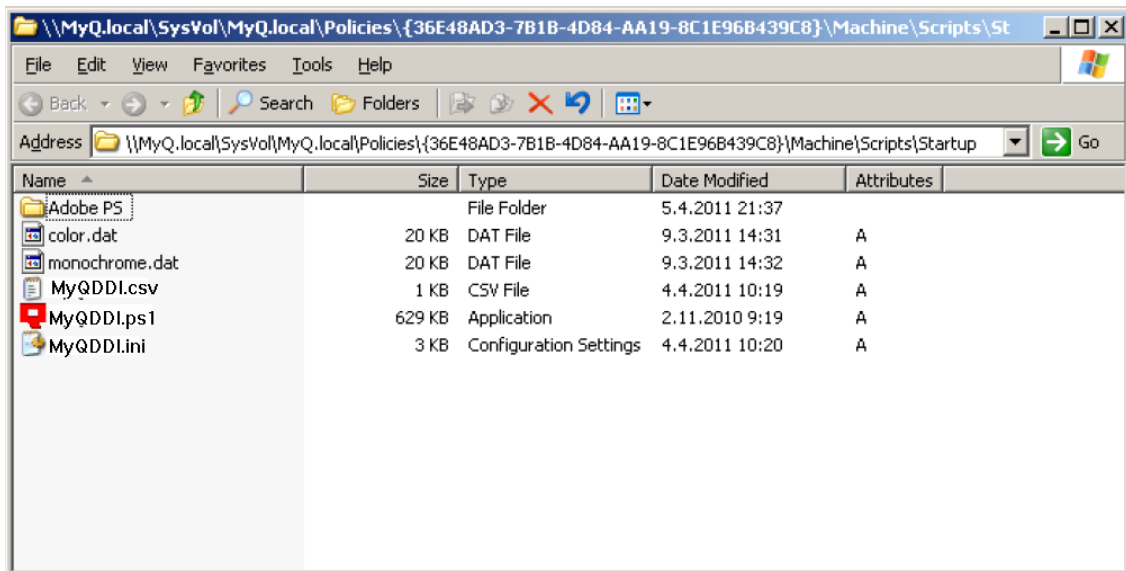
In the *Computer Configuration* folder, open *Windows Settings* and then *Scripts (Startup/Shutdown)*.
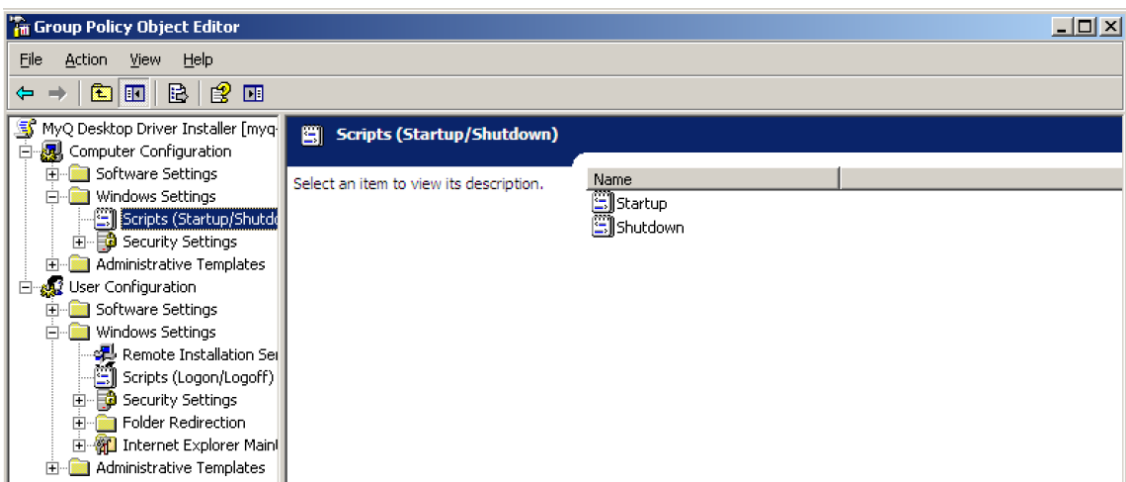
Double-click on the *Startup* item. The Startup Properties window opens:
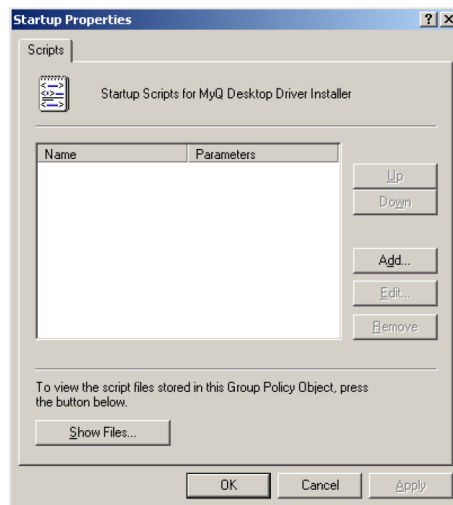
Click the **Show Files** button and copy all the necessary MyQ files described in the previous chapters to this folder.


Close this window and return to the Startup Properties window. Select **Add…** and in the new window click on **Browse** and select the MyQDDI.ps1 file. Click **OK**. The Startup Properties window now contains the MyQDDI.ps1 file and looks like this:
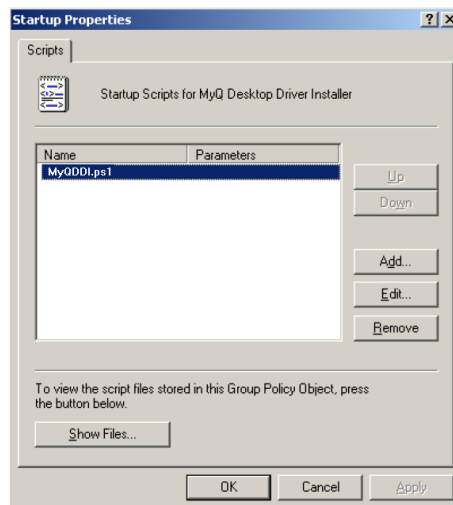
Click **OK** to go back to the GPO editor window.

3.1.2 Setting objects and groups

Select again the MyQ DDI GPO you created, and in the Security Filtering section define the group of computers or users where you want MyQ DDI to be applied.
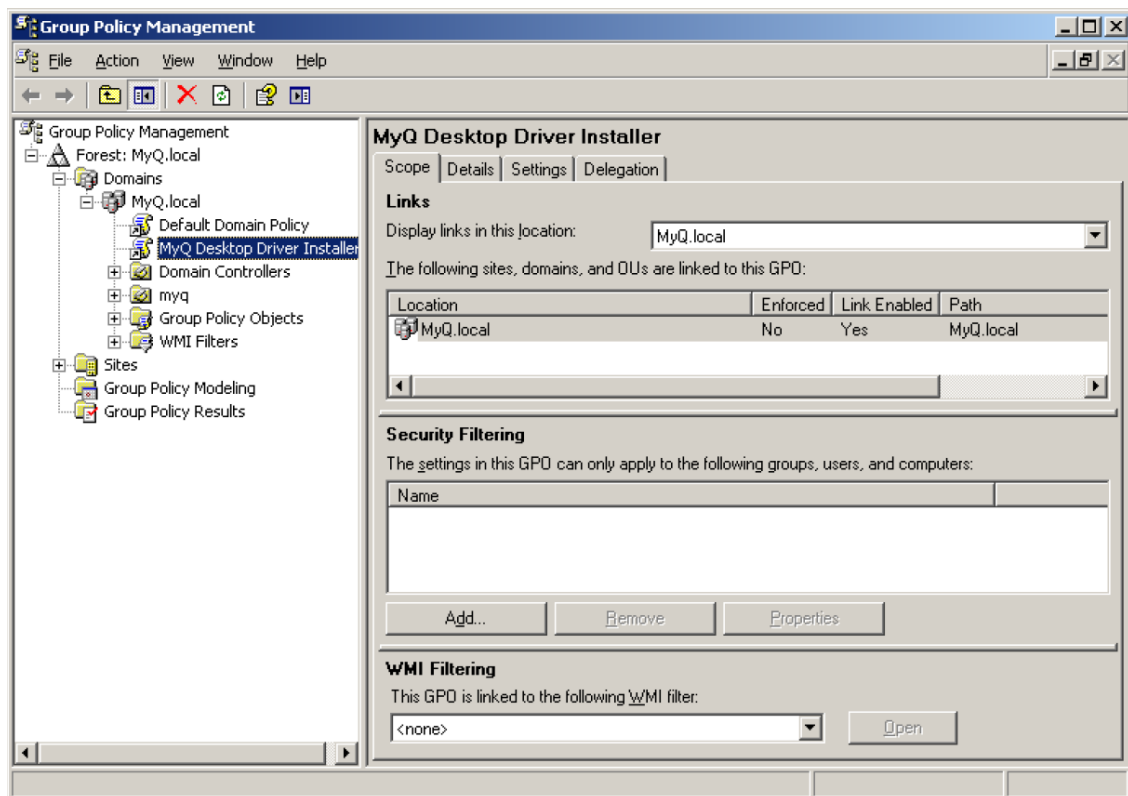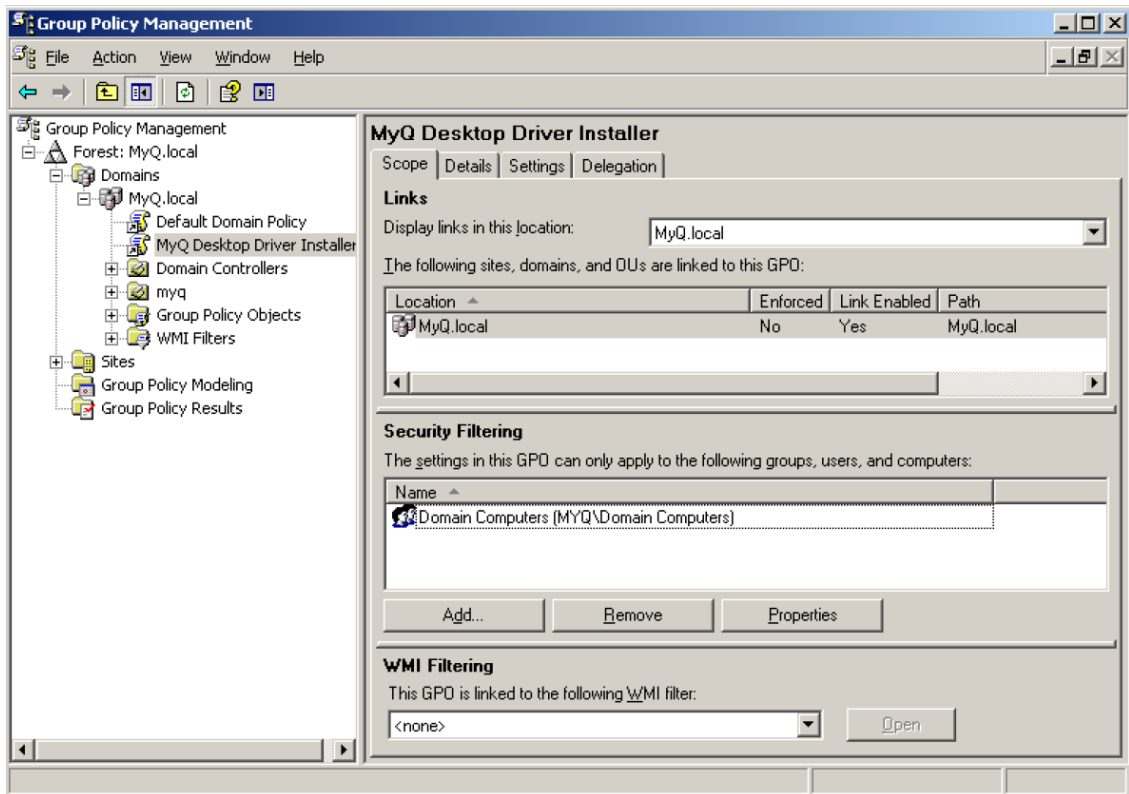

Click **Add...** and first select the object types where you want to apply the script. In case of a startup script, it should be computers and groups. In case of a logon script, it should be users and groups. After that, you can add the individual computers, groups of computers or all the domain computers.
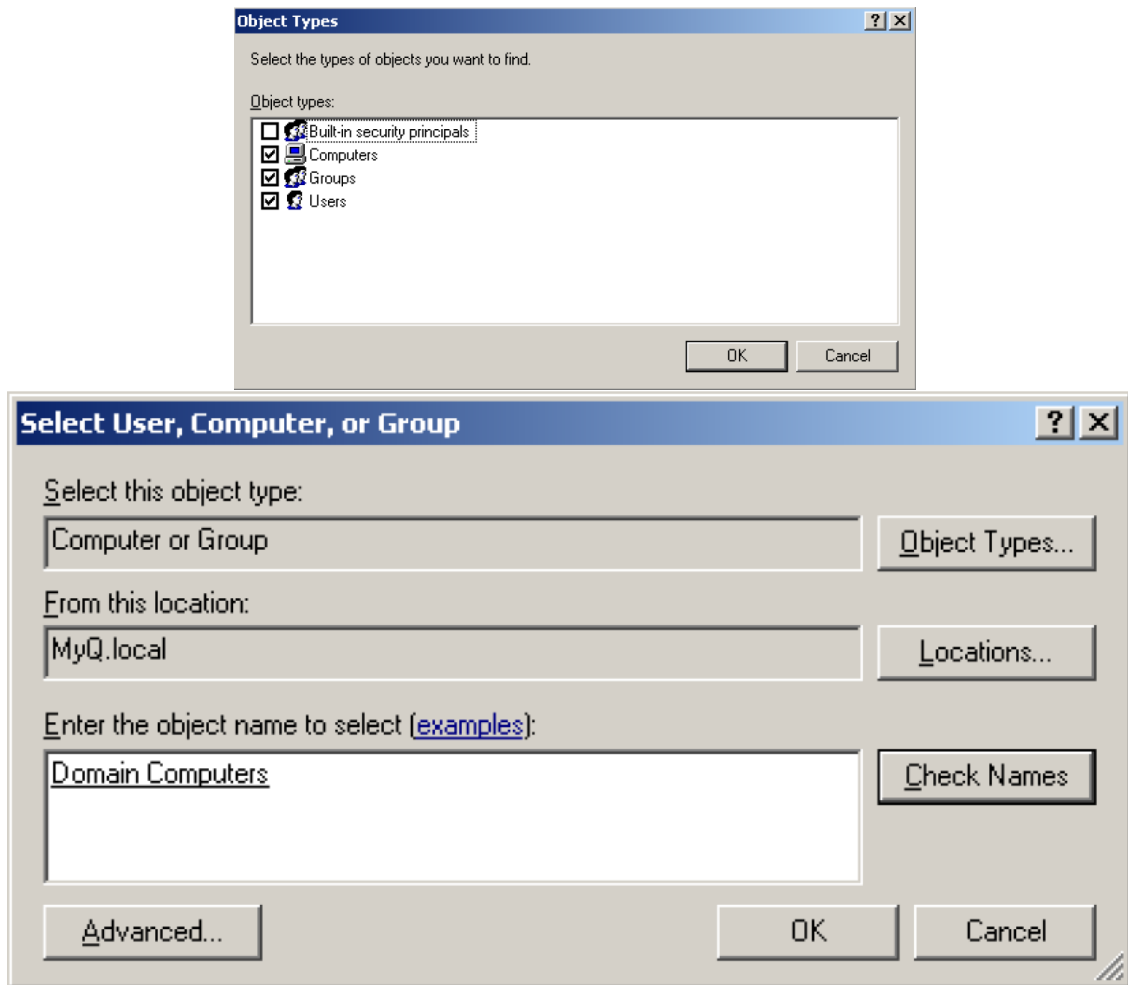
> ⚠ Before you apply the GPO to the group of computers or to all the domain computers, it is strictly recommended to select only one computer and then restart this computer to check if the GPO is applied correctly. If all the drivers are installed and are ready to print to MyQ server, you can add the rest of the computers or groups of computers to this GPO.

Once you click **OK**, MyQ DDI is ready to be automatically run by the script every time any domain computer is switched on (or every time a user logs in if you used the logon script).

4 Business Contacts

MyQ® Manufacturer	**MyQ® spol. s r.o.** Harfa Office Park, Ceskomoravska 2420/15, 190 93 Prague 9, Czech Republic MyQ® Company is registered in the Companies register at the Municipal Court in Prague, division C, no. 29842
Business information	www.myq-solution.com info@myq-solution.com
Technical support	support@myq-solution.com
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