

# steadyPRINT®

The Software for centralized printer administration,  
monitoring and reliability.

***User Manual  
for Version 5.2.3***

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**Part**



# 1 Welcome

The **steadyPRINT** team wishes you a warm welcome. With **steadyPRINT**, data loss due to printer failure now belongs to the past. In the event of a print server failure, print jobs are redirected to a backup print server by means of a centralized printer management system. This allows administrators to direct their attention to the defective system without ruffle or excitement as users are able to continue printing despite the failure. Not a single print job will be lost. Particularly when it comes to complex printing environments, **steadyPRINT** is the ideal solution while also making an expensive cluster system superfluous. In addition, further-reaching possibilities are put at your disposal when it comes to overseeing your printers - as in job monitoring, for example.

This user manual introduces you to the basic installation process with its individual components as well as to **steadyPRINT**'s mode of operation. It highlights the fundamental technology employed by **steadyPRINT** together with its various functions. The following section provides some tips and suggestions for the establishment and possible consolidation of your printer environment.

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## Information

Please read the accompanying [readme.txt](#) file before beginning with a possible installation. It will provide additional topical information and references concerning - in particular - the current version of **steadyPRINT**.

Additional information is also available in the Internet at [www.steadyPRINT.com](http://www.steadyPRINT.com):

- Registration option, to receive a regular newsletter, for example,
- free downloads for test versions and individual components of **steadyPRINT**,
- current patches and hot-fixes with a listing of changes,
- announcements and roadmaps for the **steadyPRINT** product line,
- technical problem solutions,
- frequently asked questions (FAQ).

**Part**



## 2 steadyPRINT Overview

**steadyPRINT** is a software that simplifies the administration of printing environments and enhances certain core functions. The benefit of using **steadyPRINT** increases with the complexity of the printing environment in which it is deployed. Particularly in the terminal server domain, special challenges may arise an administrator has to deal with.

### 2.1 steadyPRINT's Objective

**steadyPRINT** helps you to meet these challenges. The software enables comprehensive and central printer management. You can directly access local user and Citrix (or Microsoft-based) terminal server sessions. The aspect of session location remains transparent when it comes to the administration of the printing environment.

With **steadyPRINT**'s integrated reliability, the risk of a central failure point is reduced. In the event that a print server is no longer available, the users' printer connections are shifted to a backup server. In this way, printer availability continues to be maintained for the users. The administrators can now calmly **concentrate on the problem** at hand without encountering bottlenecks and unnecessarily stressful situations.

To implement the points mentioned in a computerized environment, **steadyPRINT** has various components at its command. More details will be given in the following subchapters [Overview](#) and [The Technology](#).

### 2.2 Overview

**steadyPRINT** is composed of several software components that are distributed in the environment. The following [figure - Overview of the steadyPRINT Components](#) illustrates a simplified overview of software distribution in a network.

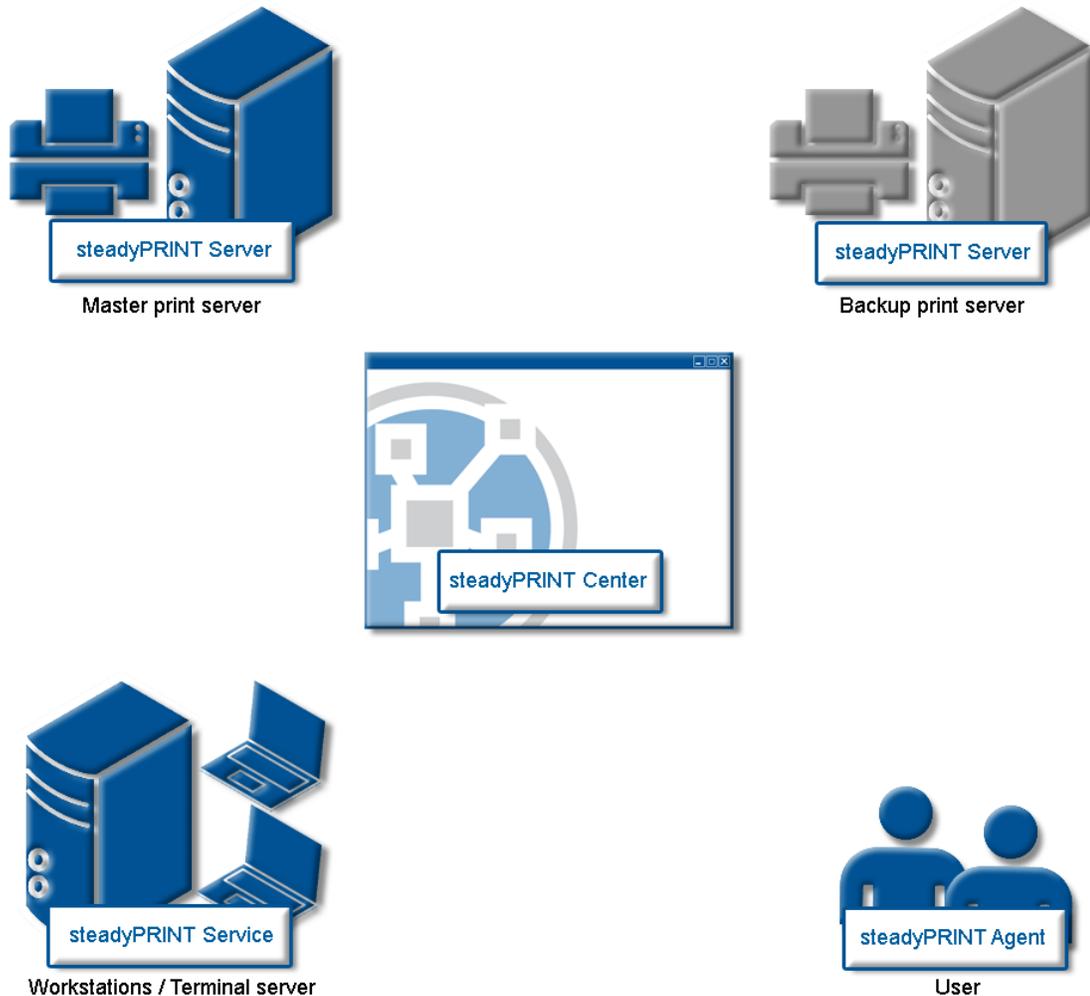


Figure 1: Overview of the steadyPRINT components

The master print server holds the printer sharings. An additional print server monitors the master print server and, in case of a failure, takes over this printer sharing responsibility. The servers and workstations with their user sessions must ultimately administer **steadyPRINT**'s printing environments. The administration takes place using network tools which communicate with the other components and services.

## 2.3 The Technology

Among other things, **steadyPRINT** comprises two service components that run as Windows services on the servers and workstations. The following table provides an overview:

Process/Service	Installation Location / Program Component	Description
steadyPRINT Agent	Terminal Servers and Workstations (Client)	Serves as printer administration on terminal servers and workstations. The <i>steadyPRINT Agent</i> sets up the printer connection according to the configuration as predefined by the administrator and/or user.
steadyPRINT Center	Print Servers (Management)	Serves as the central administration point of your printing environment. Ideally, this is installed on every print server.
steadyPRINT Server	Master and Backup Print Server (Server)	Used to collect information for the <i>Dashboard and Monitoring</i> as well as the monitoring of the primary print server.
steadyPRINT Service	Terminal Servers and Workstations (Client)	Service for the remote administration of the printing environment.
steadyPRINT Webserver	Arbitrary (Server)	Webserver for the steadyPRINT Dashboard

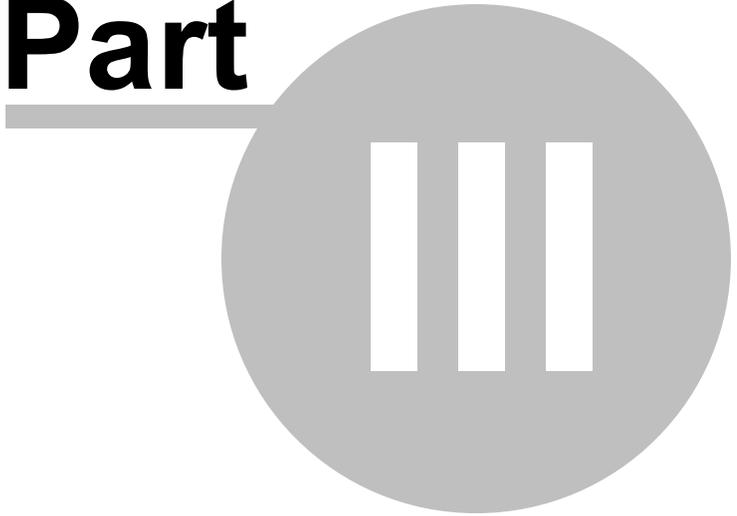
**Table 1: Overview of steadyPRINT components**

Additionally, a background process runs during every user session, which establishes a communication channel to the *steadyPRINT Service*. A database on *Microsoft SQL Server* basis serves as data storage. Using the free *SQL Server Express Version* is also possible.

## 2.4 Features

*steadyPRINT* offers several necessary features for the management of a printing environment. Moreover, the functionality of the Windows print servers is extended by many useful operations. You will find an overview of the most important features in the most recent version of *steadyPRINT* under <http://www.steadyprint.com/download/> in the area *Documentation > Key Features*.

**Part**



## 3 Installation

To install **steadyPRINT** you will need the installation package. It is available for download in the download area at [www.steadyPRINT.com](http://www.steadyPRINT.com). Please note that it is absolutely necessary to back up your data before beginning with the installation. Details will follow in chapter [Installing the Database](#).

### System Requirements

The following requirements must be met in order to run **steadyPRINT** on client and server side:

- At least one print server as of Microsoft Windows Server 2003 SP2 or higher (32 or 64 bit),
- Active Directory as of Microsoft Windows Server 2003,
- Microsoft SQL data base as of version 2005 (the Express version is possible),
- Client operating system as of Microsoft Windows XP SP3 Prof. (32 and 64 bit)
- Microsoft .NET Framework 4.0.

### 3.1 Installing the Database

For the use of **steadyPRINT** it is necessary to install the **steadyPRINT database**. The set-up is done with the help of the **CreateSteadyDB** application provided. Start up this application with a double click. The following [Figure - Installing the database with CreateSteadyDB](#) shows the application after start up with filled-in database and credential information.

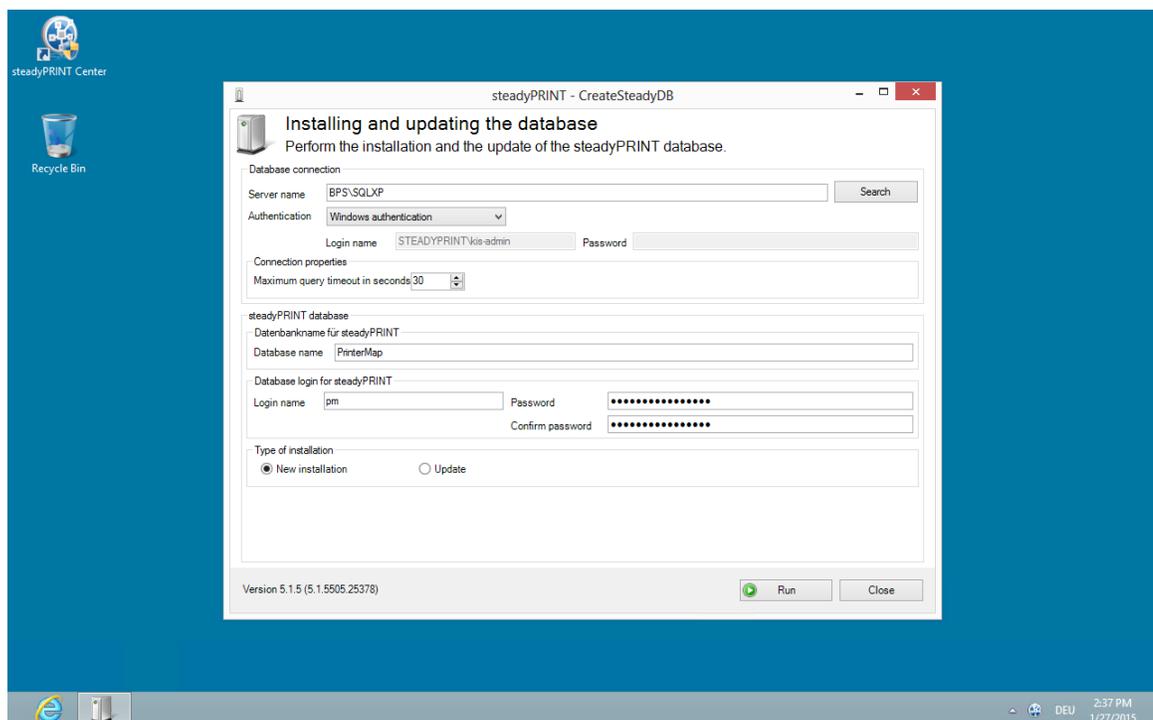


Figure 2: Installing the database with CreateSteadyDB

## Database Connection

Enter the name of the database server or the database instance on which the database is to be set up. Subsequently, select the required authentication at the database server:

- Windows authentication: Uses the currently logged-in user for the connection to the server.
- SQL Server authentication: In this case, a SQL login with all respective [System Administrator \(sa\)](#) authorizations has to be entered in order to be able to access the database server or the database instance and to create a database.

### Important **Setting up a steadyPRINT Database with Windows Authentication**

The currently logged-in user must at least have the authorizations of the [dbcreator](#) and [securityadmin](#) roles on the database server.

*For further information regarding the Microsoft SQL server roles, please refer to [http://msdn.microsoft.com/en-us/library/aa337562\(v=sql.110\).aspx](http://msdn.microsoft.com/en-us/library/aa337562(v=sql.110).aspx).*

### Important **Setting up the steadyPRINT Database with SQL Server Authentication**

Enter the user log-in data of an SQL System Administrator (**sa**) in order to successfully conclude full implementation of the process.

**Here, the [CreateSteadyDB](#) application expects the user log-in data of an SQL System Administrator or an equivalent account with "sysadmin" server role status.**

*For further information (technical background) please refer to the [steadyPRINT website](#) [www.steadyPRINT.com](http://www.steadyPRINT.com) under [FAQ/Technical Support](#).*

## Extended Connection Parameters

For the creation and the update of the database, the [CreateSteadyDB](#) sends SQL instructions to the SQL server. If the process is not executed within the specified time frame, the current action is aborted and the error message "query timeout expired" is displayed. This problem frequently occurs if the server is fully utilized or the instruction to be processed cannot be executed quick enough due to their complexity. The increase of the [max. query time out](#) guarantees a successful execution of the necessary SQL instructions.

## steadyPRINT Database

Enter the name of the [steadyPRINT database](#) used to create the database on the database server. When updating the database, enter the recently used [steadyPRINT database name](#).

### Important **Old Database Name**

Since version [5.0.1](#) the name of the [steadyPRINT database](#) can be freely

selected. In older versions, the name [PrinterMap](#) was used by default for the installation.

### Database Login for steadyPRINT

At this juncture, the entry of a separate database user for the [steadyPRINT Database](#) will be made. The user is **automatically** created by using the entered login which is later necessary when [Installing the Program Components](#). When [updating](#) the database, the recently used login is required.

#### Note *Update - Using another Login*

In the course of updating the [steadyPRINT database](#), a new user can be specified. This is **automatically** done by [CreateSteadyDB](#) by using the given login. Activate the checkmark [Create as new Login](#) (only available with installation type [Update](#)).

### Installation Type

Here, you have two options to choose from, to be more precise, either a new installation of [steadyPRINT](#) or an upgrade of the [steadyPRINT Database](#) currently in operation. The latter carries out an adjustment of the database to a newer version that is equivalent to the [steadyPRINT Components](#) currently in use.

Provided that a [steadyPRINT](#) database has not yet been set up on the database server or database instance, or if you would like to discard an existing [steadyPRINT Database](#), select the [New Installation](#) option.

Should a database from an earlier version of [steadyPRINT](#) already exist on the database server or database instance, it is possible to update it to the current version. To do so, select the installation type [Upgrade](#).

### Starting the Database Installation

After the necessary entries have been made, the [new installation](#) or [update](#) of the [steadyPRINT database](#) is initiated via the **Install** button.

## 3.2 Installing the Program Components

In this chapter we are going to address the various installation procedures for [steadyPRINT Components](#) – both on client and on server side. The following components are available to choose from:

- *Client (end user)*
- *Management (administrative surface)*
- *Server (reliability and monitoring).*

All three installation types will be shown and described as step-by-step instructions in the following subchapters. An overview of the program components and their tasks will be given in chapter "[The Technology](#)"

**Important** *Installing Server Roles for Print Servers (when using Reliability)*

Installing **steadyPRINT Server** components makes it necessary to have the "Print Server" role installed on a Windows server (the designation can vary depending on the Windows server versions being used).

**Note** *Program Components*

The installation of the program components for workstations and Clients, the servers as well as the management takes place by starting the installation using the accompanying installation package **setup.exe**.

**Tip** *Installation Location for the Management Components*

The **steadyPRINT** team recommends that the management components be directly installed on the corresponding print server.

### 3.2.1 Combined Installation Steps

After starting the installation routine, you will see the **Welcome Screen** with the words "Welcome to the InstallShield Wizard for steadyPRINT," [Figure - Installation - the welcome screen](#).

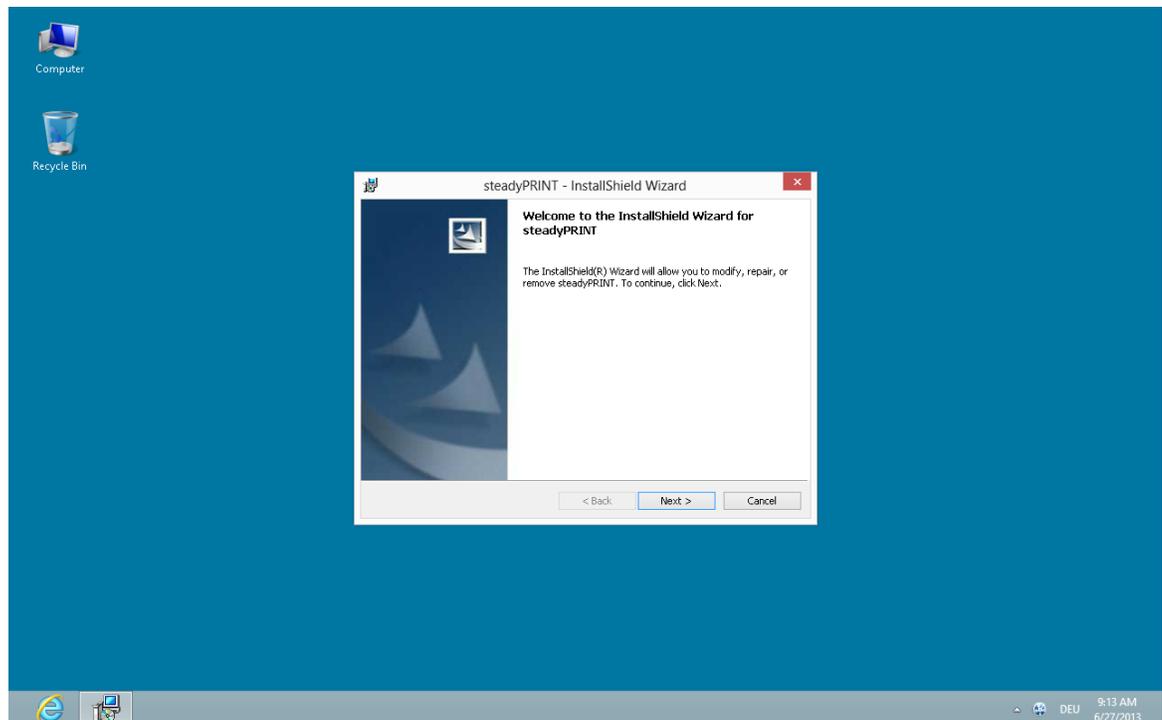


Figure 3: Installation - the welcome screen

By clicking on the [Continue](#) button, you will progress to the next dialog box. This displays the license agreement, [Figure - Installation - the license agreement](#).

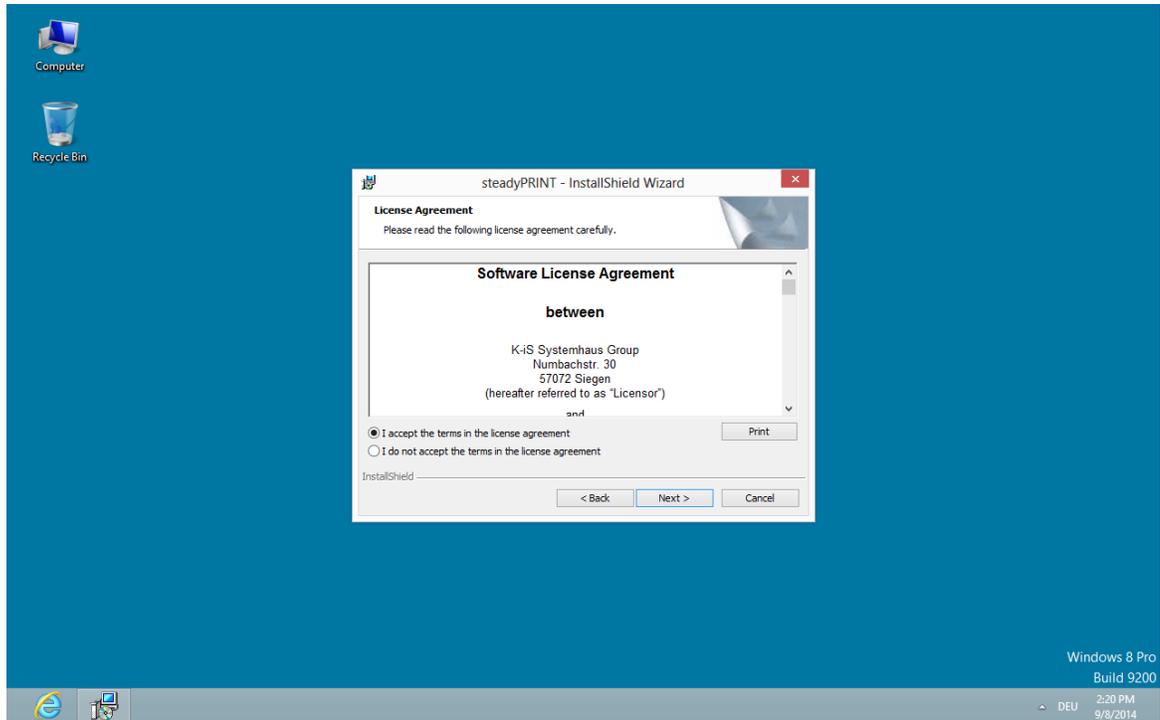


Figure 4: Installation - the license agreement

You will now be asked to confirm the license agreement. You are advised to read the [steadyPRINT Software License Agreement](#) conscientiously. Accepting the license agreement is necessary to continue with the installation. To do this, select “[I accept the conditions of the license agreement](#)” and confirm your selection by clicking on the [Continue](#) button, thus bringing you to the user information particulars.

By declining to accept the license agreement, the installation routine ends.

---

### Important *Accepting the License Agreement*

In order to install the [steadyPRINT](#) program components you must agree to the software license contract. **The installation cannot continue should you decide not to accept the license agreement.**

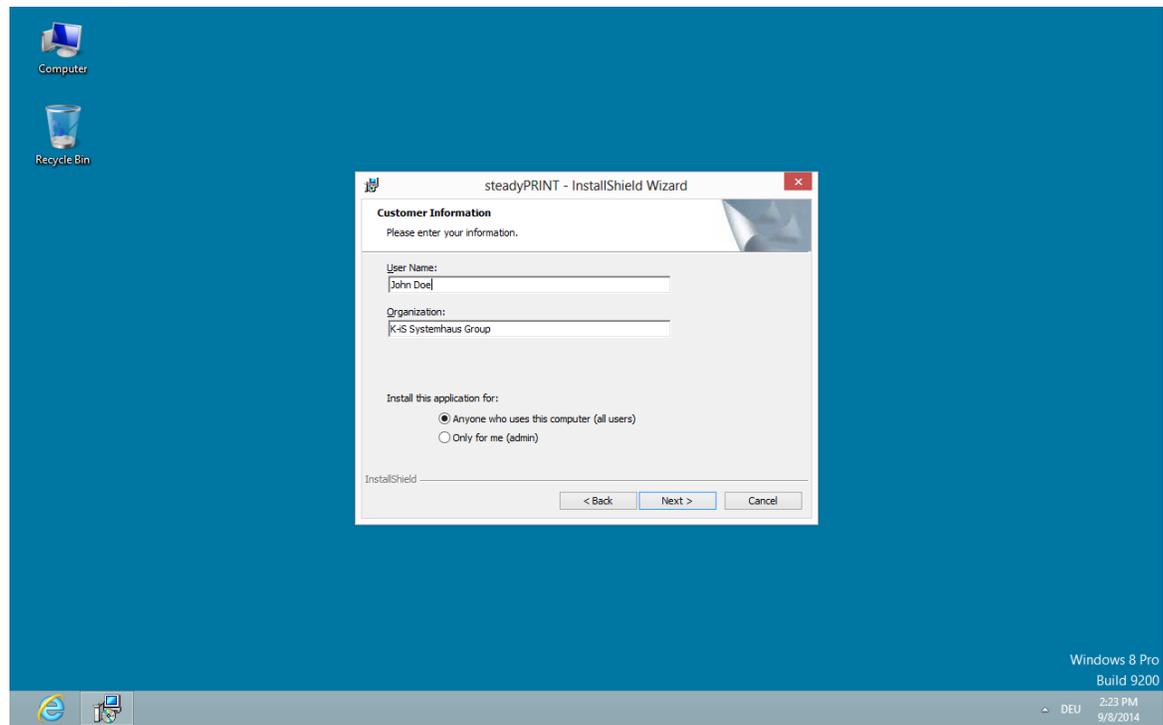


Figure 5: Installation - user information

In the two input fields [User Name](#) and [Organization](#), please enter your full name and the organization for which you are working ([Figure - Installation - user information](#)). To confirm your entries, click on the [Continue](#) button.

The following dialog box, [Figure - Installation - destination folder](#), requires that an installation directory for the [steadyPRINT Components](#) on your local hard drive be specified.

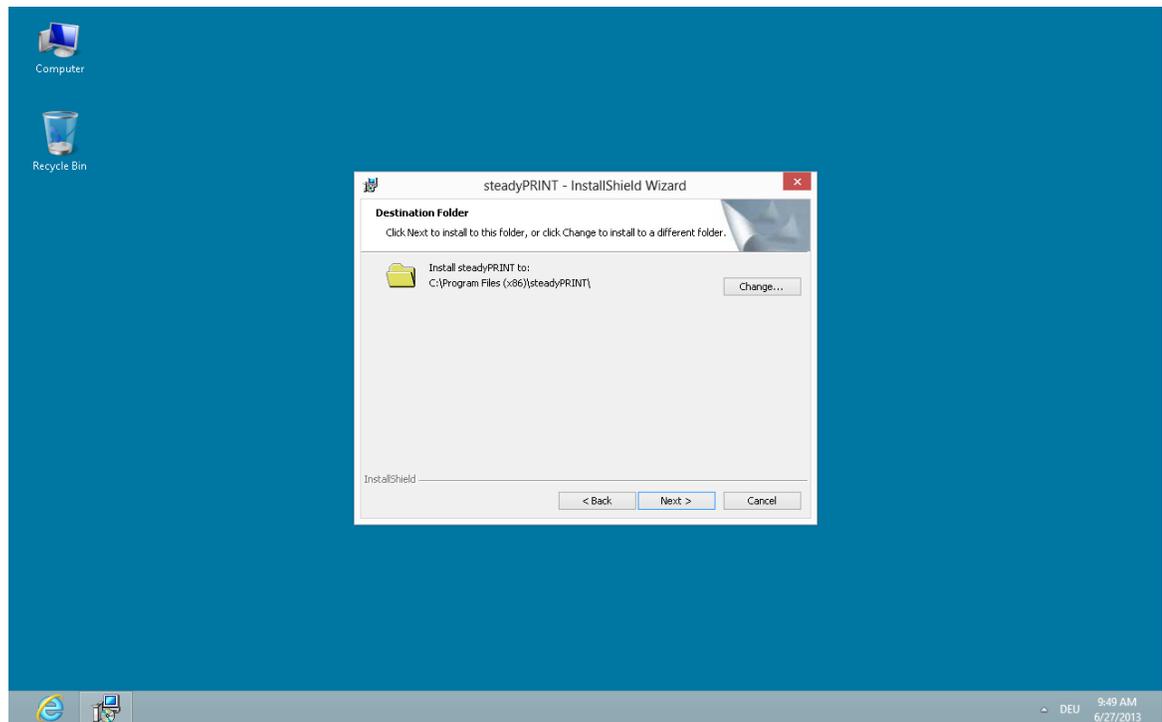


Figure 6: Installation - destination folder

If you wish to use an installation folder other than the default destination folder location suggested, it is possible for you to do this using the [Edit](#) button.

Then click on the [Continue](#) button to configure the components for installation.

### 3.2.2 Component Selection for Installation

The following is a user-defined installation interface offering you the *steadyPRINT Components* to be installed. Here you can select the feature desired and disable the other components. Deselecting a corresponding feature is done by double-clicking it and then selecting “This feature will not be available.” To enable a feature, it is necessary to click on the menu item “This feature will be installed on a local hard drive.” [Figure - Installation - adapted setup](#) shows, as an example, the selection of the *steadyPRINT Server* and *steadyPRINT Webserver* components.

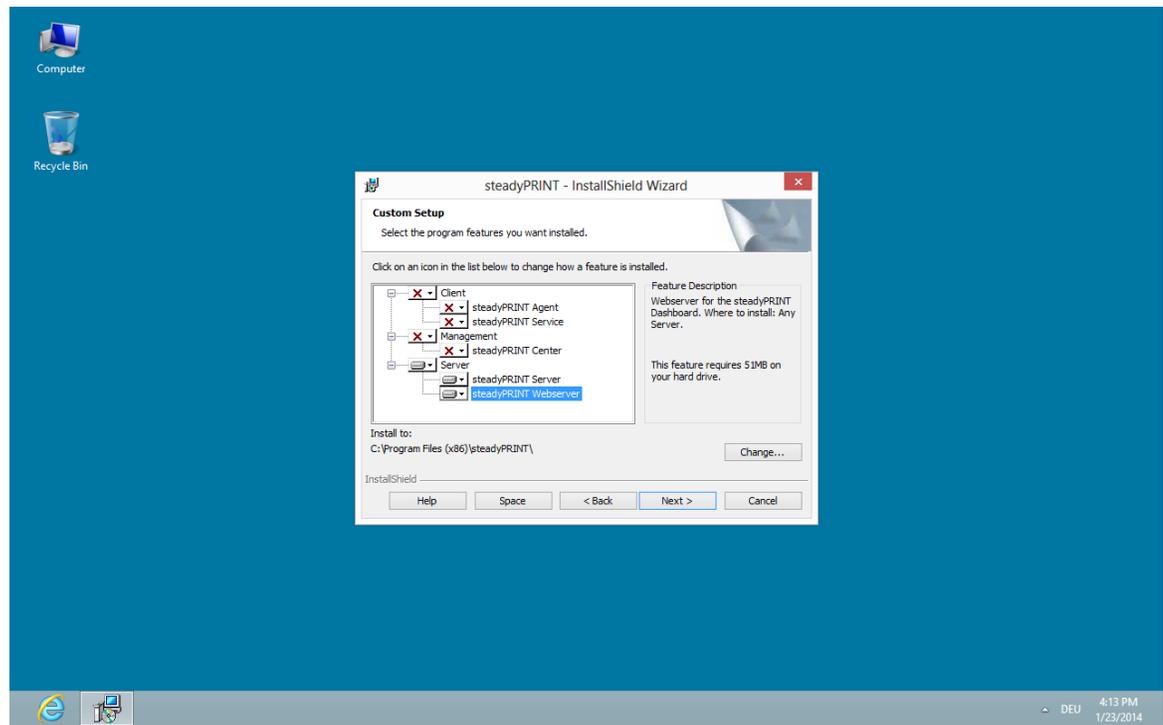


Figure 7: Installation - adapted setup

To conclude the adapted - or custom - setup for *steadyPRINT Component* selection, click on [Continue](#). The next step of the installation requires that the name of the database server or database instance be entered.

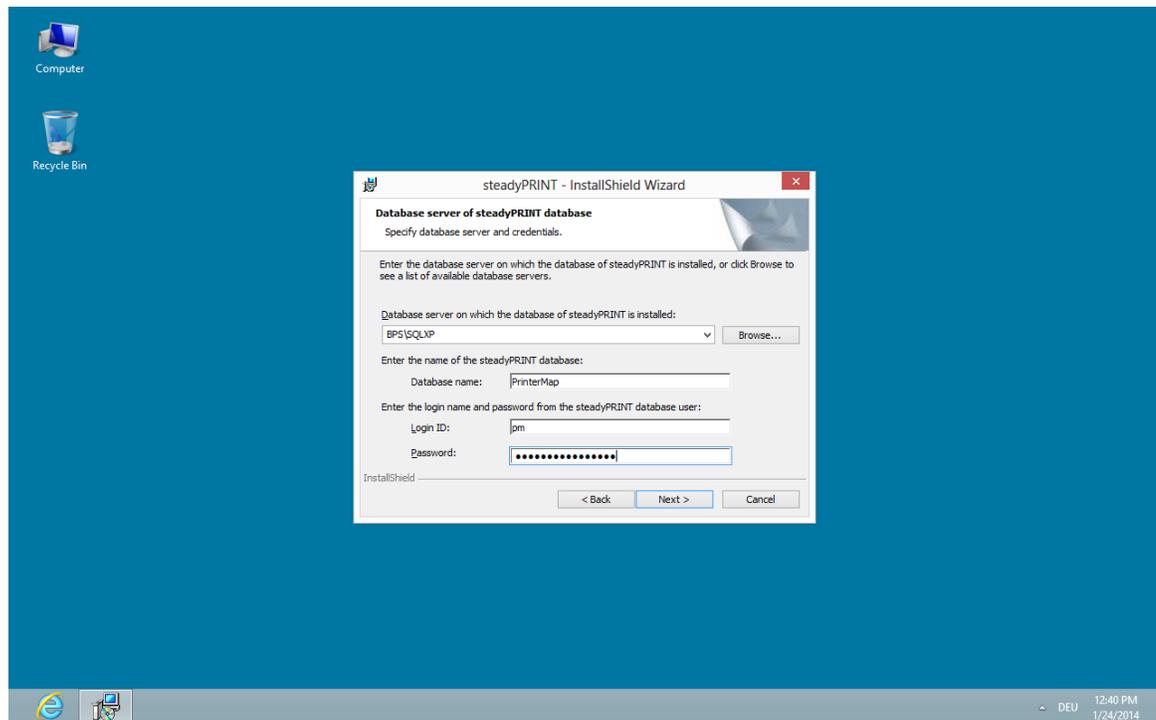


Figure 8: Installation - database server

Enter the information for the [database server](#), the [steadyPRINT Database](#) and the separate [steadyPRINT Database User](#) from [Installing the Database \(Figure - Installation - database server\)](#), which was added previously while creating the database with the [CreateSteadyDB](#) application. Then click **Continue** to proceed.

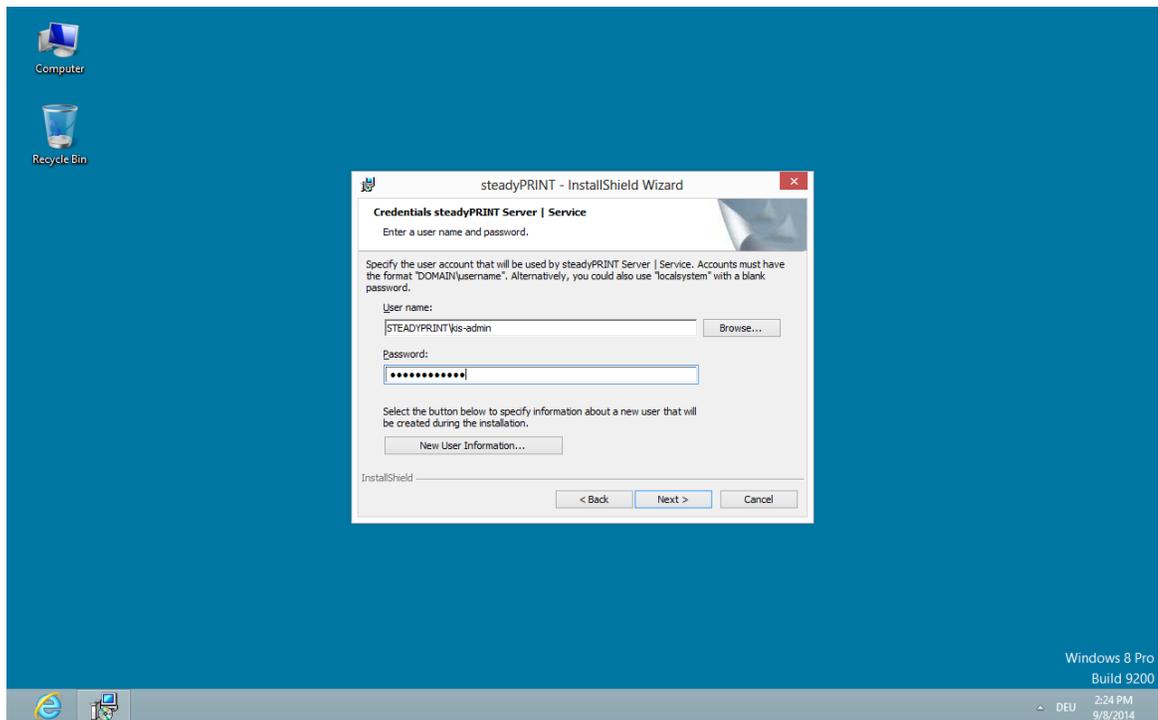


Figure 9: Installation - credentials

The next installation step, [Figure - Installation - credentials](#), requires the entry of the *domain authentication data (credentials)* of an administrator account. This requires the login data of a user with appropriate administrative privileges in order to query, for example, the status of the print jobs in the queue of the monitored print server. For a usual Client installation (*steadyPRINT Agent*) you can leave the predefined user *localsystem*. Then finalize the installation by clicking the **Continue** button.

### Important *The Installation of the Service Components Fails*

To install the *steadyPRINT Service and steadyPRINT Server* components you will need to have adequate administrative authorizations.

When indicating a service account, please make sure that the specified user has been added to the local safety directive [Log on as a Service](#).

Alternatively, enter the local system account *localsystem* which is predefined by default and leave password space empty to continue this installation step.

You will find further information (technical background) in chapter [Support](#) under *FAQ/Technical Support*.

During the installation of *steadyPRINT Client* components for workstations and terminal servers as well as for management, the name of the database servers or database instance will also be asked for once selected. Entering the *domain authentication data* will not be necessary, however.

### 3.2.3 Completing the Installation

The necessary entries for the installation of the *steadyPRINT Program Components* have been made by you. The InstallShield Wizard's program assistant is now ready to copy the program files to your local hard drive and to make the necessary system entries, [Figure - Installation - ready to install the program](#).

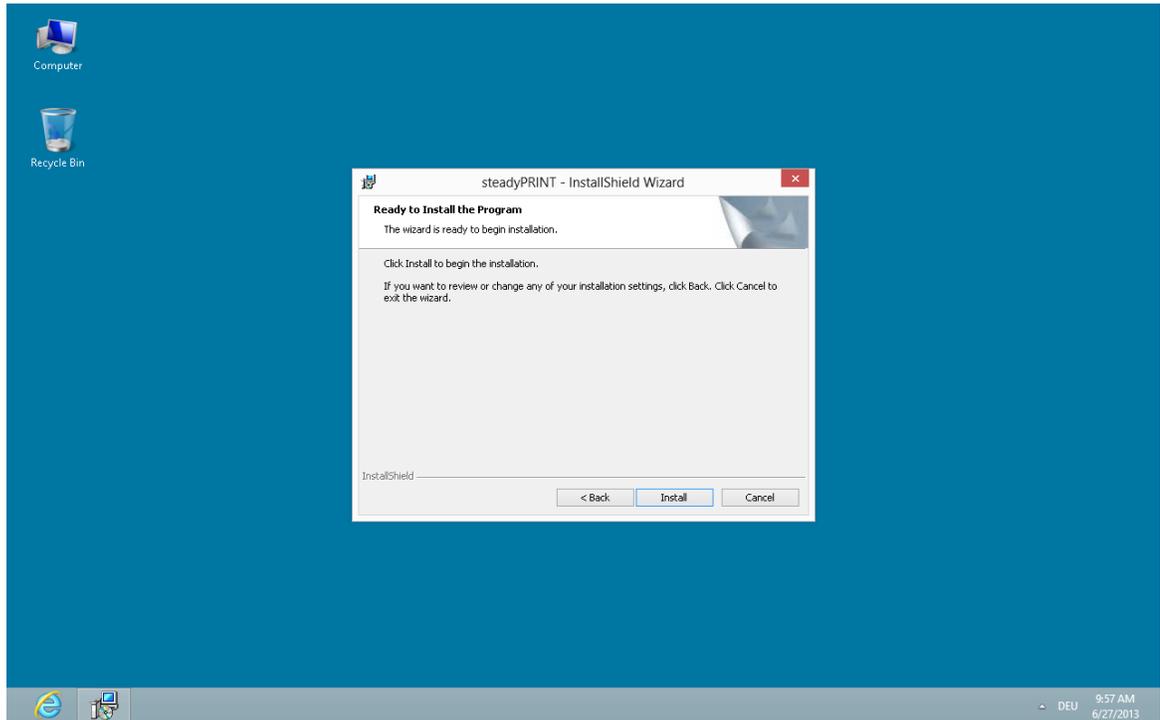


Figure 10: Installation - ready to install the program

Click **Install** to execute the installation with the specifications you have made.

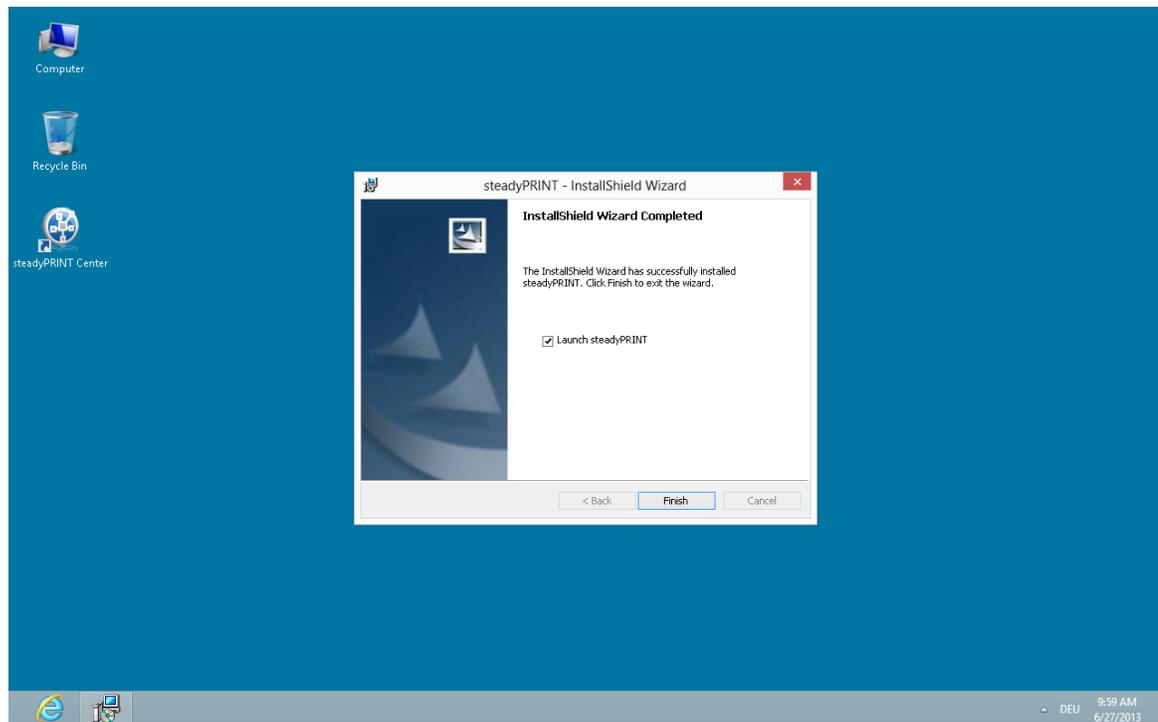


Figure 11: Installation - InstallShield Wizard completed

The *steadyPRINT Program Components* have now been fully installed. Click **Finish** to complete the installation ([Figure - Installation - InstallShield Wizard completed](#)).

### 3.2.4 Software Distribution per Active Directory (AD)

The automatic distribution per Active Directory is provided by the supplied [MSI package](#) (*steadyPRINT.msi*). An example instruction for the creation of the Silent Installation can be found in the [Download Area](#) under [Documentation](#) on our homepage [www.steadyprint.com](http://www.steadyprint.com).

## 3.3 Installation Webserver

The installation of the *steadyPRINT Webserver* is currently separated from the remaining components. Please refer to the download area of [www.steadyprint.com](http://www.steadyprint.com) to find the version for download. The installation can optionally be performed on a Windows Server Operating System with and without integration to the [Microsoft Internet Information Service \(IIS\)](#) as installation guide.

### 3.3.1 Installation Webserver under Windows

#### System Requirements for Webserver under Windows

The following requirements must be met in order to run the *steadyPRINT Dashboard*.

- Microsoft Windows Server 2008R2 or higher,
- Microsoft SQL Server 2012 Native Client (Download-Link: <http://go.microsoft.com/fwlink/?LinkID=239648&clid=0x409>).

#### Installation and Configuration

The installation and configuration of the *steadyPRINT Webserver* consists of several stages. The

individual steps are described in the following paragraph.

### **Warning** *Use of several steadyPRINT Server Instances*

Please make sure that under no circumstances may several **steadyPRINT Server Instances** be active for collecting the status information per **SNMP**. Otherwise, double information, incorrect evaluations and/or the display of wrong information will be created in the **steadyPRINT Dashboard**.

This problem can be generated by repeatedly installing the components **steadyPRINT Server** on different servers in order to activate the reliability function.

The collection tool for individual servers is disabled by setting the function **Enable Collection of Printer Information** to 0 and by indicating the IP address via the **Performance Profile**.

## **Download and Installation Microsoft SQL Server 2012 Native Client**

Download the installation package [sqlncli.msi](#) via the link mentioned above. Then install the [package on the Windows Server](#) provided by you for the **steadyPRINT Webserver** and follow the instructions of the installation routine.

## **Installation steadyPRINT Webserver**

For the installation of the **steadyPRINT Webserver**, select the feature **Server > steadyPRINT Webserver** from the component selection (see chapter [Component Selection for Installation](#)) and follow the instructions of the installation routine. After successful completion of the installation, the webserver is ready for operation.

## **Optional Installation and Configuration Steps**

In the following you will find some installation and configuration steps which allow to perform further settings for the operation of the **steadyPRINT Webserver**.

### **Important** *Restart Service*

Please restart the service **steadyPRINT Webserver** after the adaption of the configuration.

## **Configuration of SQL-Server (optional)**

The **steadyPRINT Webserver** communicates with the **SQL Server** by using the connection data described below. In some cases, however, a manual adjustment of the **SQL Server TCP settings** are necessary in order to guarantee a communication between the **Dashboard** and **SQL Server**.

1. Open the **Sql Server Configuration Manager** on the **SQL Server** on which the **steadyPRINT Database** is located.
2. Navigate to the node **SQL Server Configuration Manager -> SQL Server Network Configuration -> protocol for '[INSTANCENAME]'**.
3. Make sure that the status on the right-hand side of the protocol is "Activated".
4. Open the properties of the protocol "TCP/IP" and select the tab "IP addresses".

5. Match the property "TCP port" under "IPAll" to the required port (default: 1433). The given port will also be required in the next configuration step.

### Configuration of SQL Connection Data (optional)

Replace the following file content with the content of the file `doctrine.local.php` stored under `[INSTALL]\Webserver\htdocs\config\autoload`:

```
<?php
return array(
    'doctrine' => array(
        'connection' => array(
            'orm_default' => array(
                'driverClass' => 'Doctrine\DBAL\Driver\PDOSqlsrv\Driver',
                'params' => array(
                    'host'      => '192.168.222.144',
                    'port'      => '1433',
                    'user'      => 'steadyprint',
                    'password' => 'printerMapping1!',
                    'dbname'    => 'PrinterMap',
                )
            )
        )
    )
);
```

The following table shows an overview regarding the meaning of the values mentioned above:

Value	Description
host	Indicates the host name or IP address of the SQL Database Server on which the <i>steadyPRINT Database</i> is located. It is <u>not</u> necessary to specify the data base instance.
port	Indicates the port used for communication with the SQL Database Server (default: 1433).
user	Indicates the <i>steadyPRINT Database User</i> .
password	Indicates the password for the <i>steadyPRINT Database User</i> .
dbname	Indicates the <i>steadyPRINT Database</i> .

### Configuration of Webserver Port (optional)

By default, the *Webserver* communicates via the port 8080 which can be adjusted in the file `[INSTALL]\Webserver\apache\conf\httpd.conf`.

Search in sequence for the lines `Listen 8080` and `ServerName localhost`. Change the respective port in both lines as required.

Example for an adjustment of the port to 1234

```
#
# Listen: Allows you to bind Apache to specific IP addresses and/or
# ports, instead of the default. See also the <VirtualHost>
# directive.
#
```

```
# Change this to Listen on specific IP addresses as shown below to
# prevent Apache from glomming onto all bound IP addresses.
#
#Listen 12.34.56.78:80
Listen 1234

...

#
# ServerName gives the name and port that the server uses to identify itself.
# This can often be determined automatically, but we recommend you specify
# it explicitly to prevent problems during startup.
#
# If your host doesn't have a registered DNS name, enter its IP address here.
#
ServerName localhost:1234
```

---

### Important *Synchronize IP Addresses*

---

For the query of printers via [SNMP](#), a valid IP-Address or the printer's DNS name is required. For that purpose, when adding a printer, the [steadyPRINT Center](#) stores the necessary information in the database. For already existing printers the synchronization can be performed subsequently or as an update via the respective print server node in the context menu "[Synchronize Printer Information](#)" (also see chapter [Synchronization of Printer Information](#)).

## 3.4 Update

This chapter describes the [steadyPRINT](#) update in an existing environment. Version 5.1.0 provides an [Automatic Update](#) of the [steadyPRINT Database](#) and [steadyPRINT Agent](#) components. As an alternative, the manual update procedure is described in chapter [Manual](#).

### 3.4.1 Automatic

#### General

---

In [steadyPRINT](#) version 5.1.2, the automatic update has been completely revised. (See figure [Update Settings - download and installation](#))

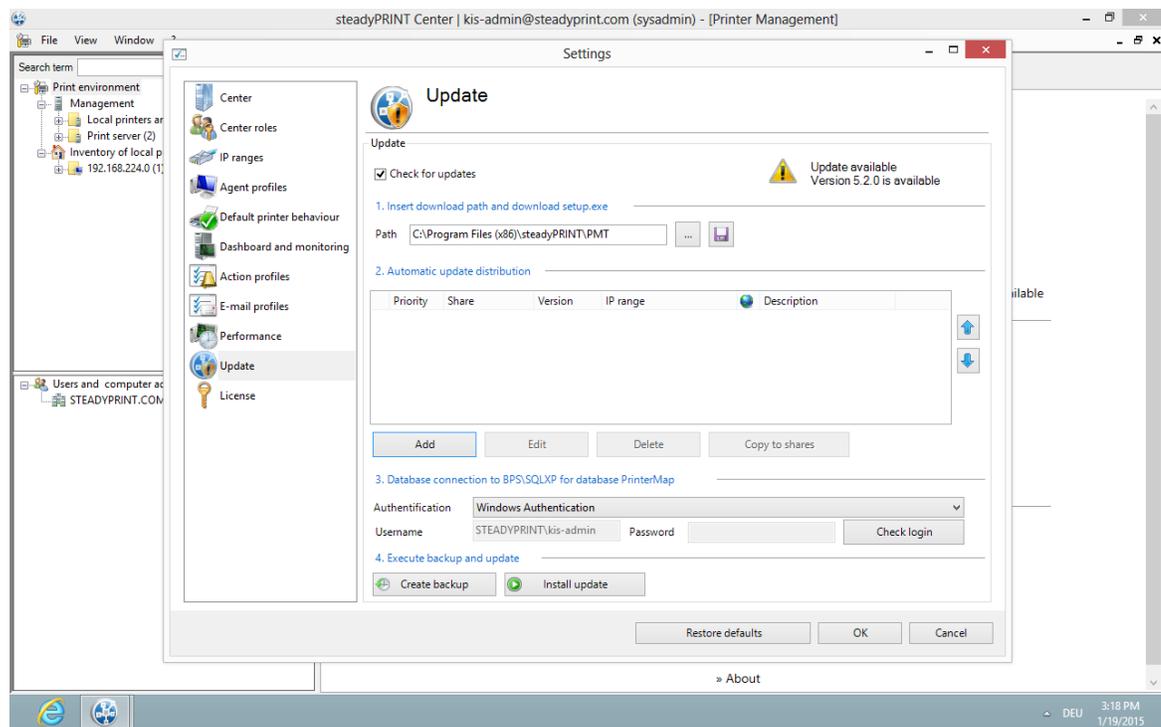


Figure 12: Update Settings - download and installation

You will find update settings and notifications under [file/settings/update](#).

New updates which are available will be displayed there.

In addition, it will be displayed on the home screen whether an update is available.

[steadyPRINT Home Screen](#)

It is possible to switch off the check for new updates with the flag "[check for updates](#)".

### Note **Update Check**

For update checks, the Center must be authorized to query an XML via port 80 in the internet and to download a file respectively.

The settings for the update are divided into four steps. (See figure [Update settings - 4 steps](#))

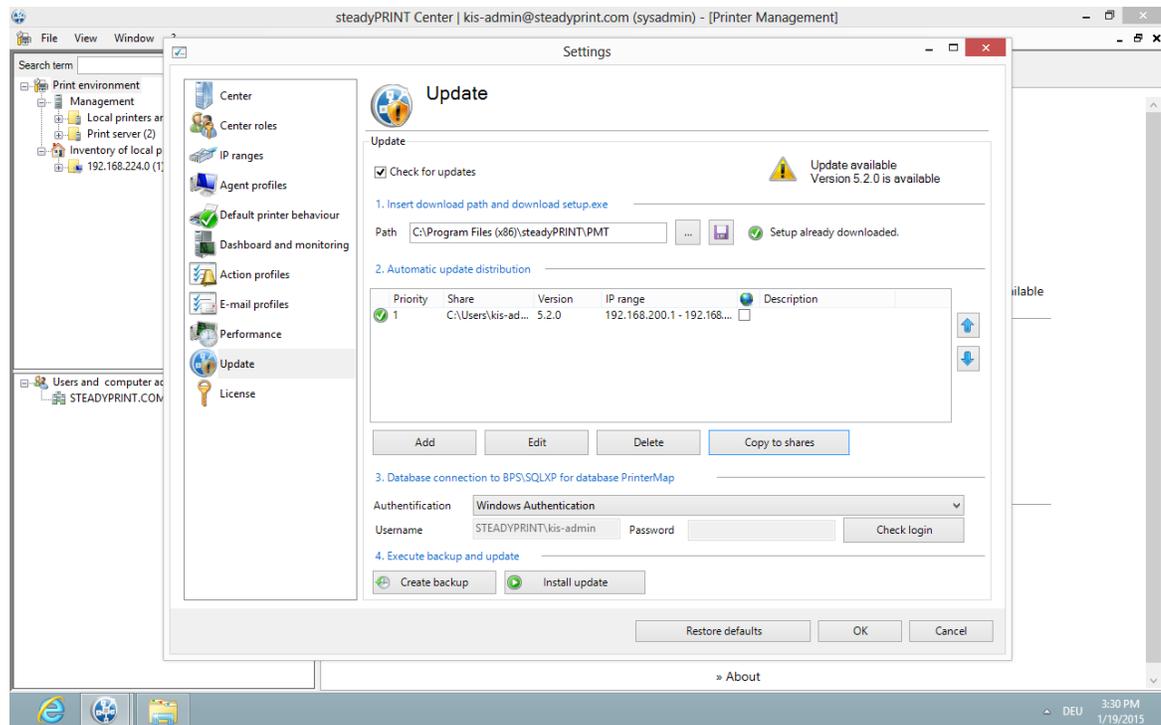


Figure 13: Update settings - 4 steps

## Step 1

In the first step, the download folder into which the Setup.exe is downloaded can be defined. By default, the path of the **steadyPRINT Center** is specified.

The Setup.exe can then be downloaded via the disk icon. A small green checkmark indicates that the update has already been downloaded. Nevertheless, it is possible to download the update again.

## Step 2

In the second step, the automatic update distributions are created. This step is not mandatory if the Clients are, for example, updated via a software distribution.

### Important *Automatic Update of the steadyPRINT Agents*

For the automatic update of the steadyPRINT Agents, version 5.1.2 is required.

The settings for the **steadyPRINT Agents** can be made via the automatic update distribution. It can be specified at what time the **steadyPRINT Agent** should check for updates and from which Share the setup should be loaded.

The settings can additionally be restricted via IP ranges.

Furthermore, it is possible to change the sequence of the single shares. It can thus be determined which of the relevant shares is to be used first.

### Important *Agent Profile*

The distribution can be switched off in the Agent profiles.  
Disable the checkbox "Update: enables the automatic update" in the tab "Setup".

### Important *Terminal Server*

The automatic update is disabled by default on the terminal servers and cannot be enabled.

A new distribution can be created via „Add“. (See figure [Creation of a new distribution](#))

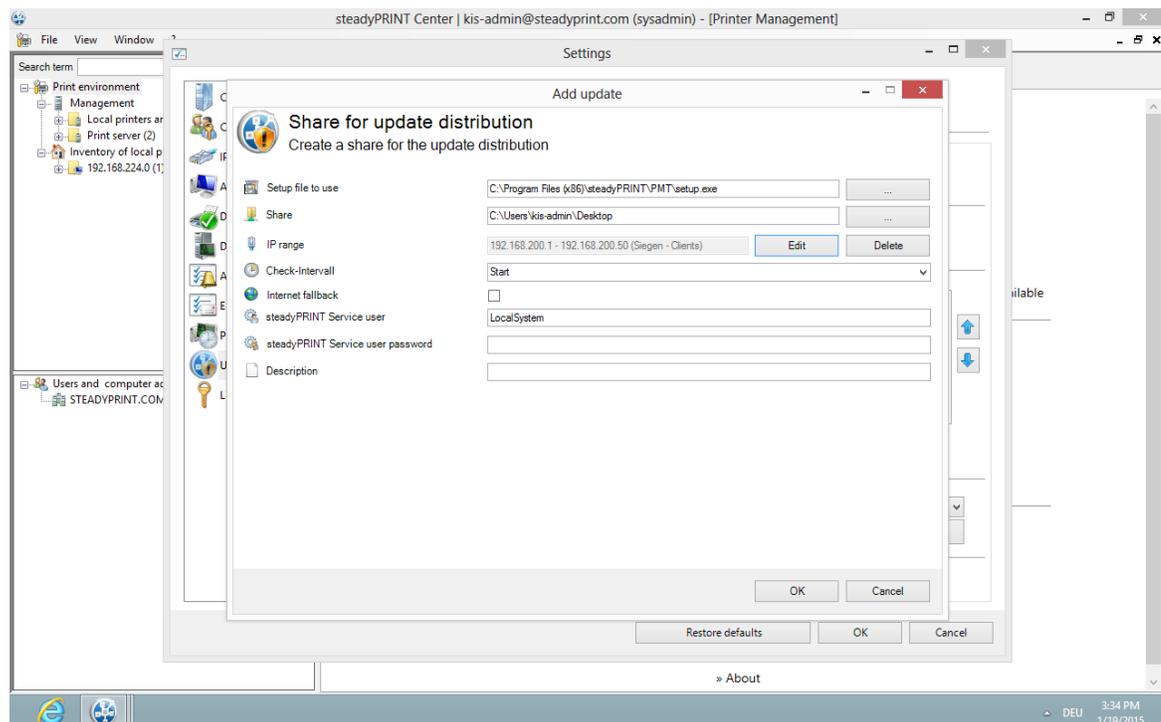


Figure 14: Creation of a new distribution

The setup.exe to be used and one share must necessarily be entered to the dialog "add update". This share identifies the path from which the setup.exe is to be loaded in future. It is therefore important that the Agents have access to this share. In order to restrict the access, please use IP ranges.

A distribution to several subsidiaries requires the indication of an IP range in order to distribute the load to several shares or points in time. An existing IP range can be selected or newly created via "Edit".

### Note *Several Subsidiaries*

Several shares and IP ranges with several subsidiaries have to have the respective authorizations.

The check interval indicates at which time updates have to be checked for in the *steadyPRINT Agent*. When pressing „Start“, the check is performed only when starting the Agent. When pressing „Click“, the check is performed any time the Agent is called out of the tray. Additionally, there are time intervals and

the check is performed after the set time has expired. It is possible to choose a multi-selection.

The checkbox [Fallback](#) indicates, whether the fallback should be resorted to in case the share is not available. In this process it is tried to download the setup from the internet.

By indicating the service user and password, the [steadyPRINT Service](#) can be run on the Client under a different user. If the boxes are left blank, the service is installed under [LocalSystem](#).

Under [Description](#), a free text describing your configuration can be entered.

When pressing [„Save“](#), a dialog box opens and the current setup files can be selected. It is then tried to copy the file to the indicated share. If this process fails, the file has to be stored there by yourself, the distribution will nonetheless be saved.

The configuration is now active. In case of an initial configuration or modification, the affected Agents, however, have to be restarted.

You can also edit or delete the configuration.

Via [„Copy to shares“](#), the setup file can automatically be copied to the indicated shares. This is interesting for further updates if the distributions are already configured. In case a copy process is not possible, you will be informed by an appropriate icon in the list.

Outdated versions on a share are indicated by a red icon. The version can be updated via [„Edit“](#) or [„Copy to shares“](#). If the share is not accessible and the file is copied to the share by yourself, you can update the respective entry via the button ["Resolve the conflict"](#) so that it is marked as "ok".

### Step 3

---

In the third step, the authentication type and login data for the database connection need to be entered. By default, an authentication under Windows requires the current user.

For the installation of the update, the indication of a database user with respective privileges is mandatory.

Via the button ["Login test"](#) you can now verify the login data. Moreover, you now have the possibility to create a database backup via the button ["Backup"](#).

### Step 4

---

In the fourth step, the update can be installed and additionally a database backup (.bak file) can be created.

---

#### **Important**    *Backup of the Database*

Please create a database backup before the update is started.

Before the update is started, a window with security questions is displayed. The update starts as soon as all points are confirmed. (See figure [Security questions](#))

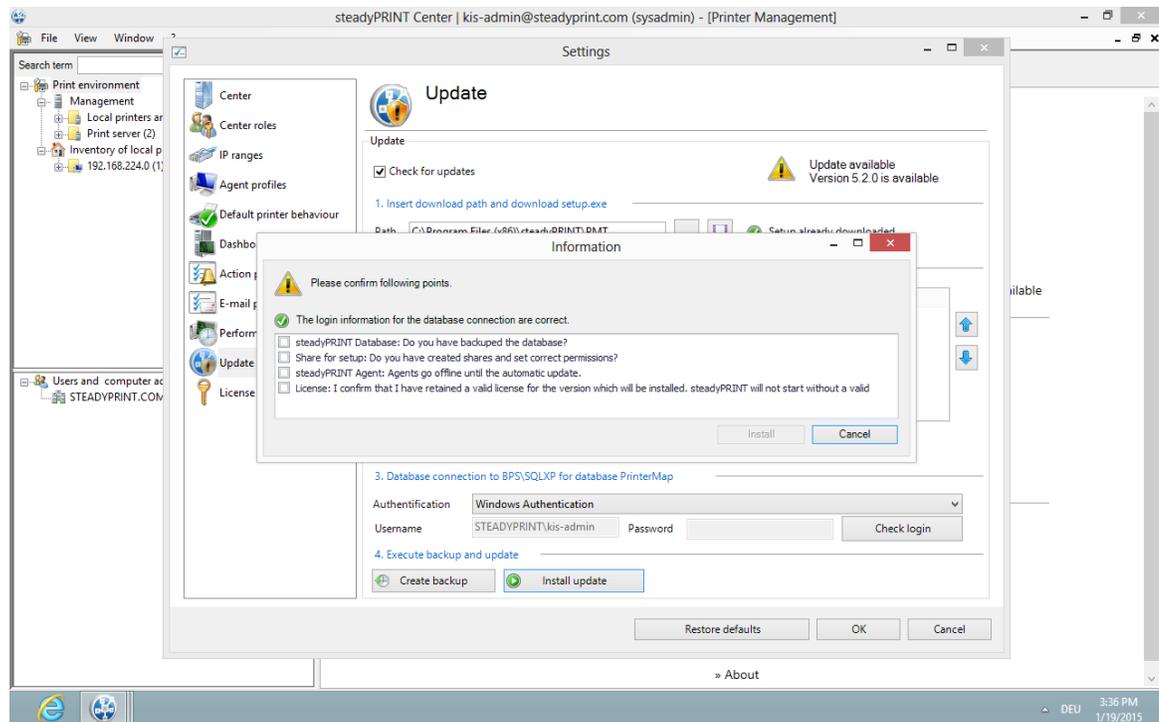


Figure 15: Security questions

During the installation of the update, the Center is automatically closed. After completion of the update, the Center has to be restarted.

## Manual Distribution

It is possible to execute the setup for the *steadyPRINT Agent* and *steadyPRINT Service* directly via Command-Line. For this purpose, the following parameters have to be set:

IS\_SQLSERVER\_SERVER: The current database server

IS\_SQLSERVER\_USERNAME: The database user for *steadyPRINT*

IS\_SQLSERVER\_PASSWORD: The corresponding password for the database user

```
setup.exe /s /v' /qn IS_SQLSERVER_SERVER=server\instanz IS_SQLSERVER_USERNAME=user
IS_SQLSERVER_PASSWORD=passwort"
```

In addition, the call can be extended by the Service user for the *steadyPRINT Service*.

IS\_NET\_API\_LOGON\_USERNAME: Service-User

IS\_NET\_API\_LOGON\_PASSWORD: Password of the Service user

The *steadyPRINT Center* and the database can also be updated via Command-Line.

```
/s /v' /qn CREATESTEADYDB=1 IS_UPDATE=1 IS_SQLSERVER_SA_USER=user
IS_SQLSERVER_SA_PW=passwort IS_SQLSERVER_SERVER=server\instanz
IS_SQLSERVER_USERNAME=agentUser IS_SQLSERVER_PASSWORD=agentUserPasswort"
```

CREATESTEADYDB: 1 = CreateSteadyDB executed , 0 = no execution of CreateSteadyDB

IS\_UPDATE: 1 = Update database , 0 = Create new database (only in case of initial installation)

## Component Overview

The component overview also indicates whether a new version is available. (See figure [Component overview](#)).

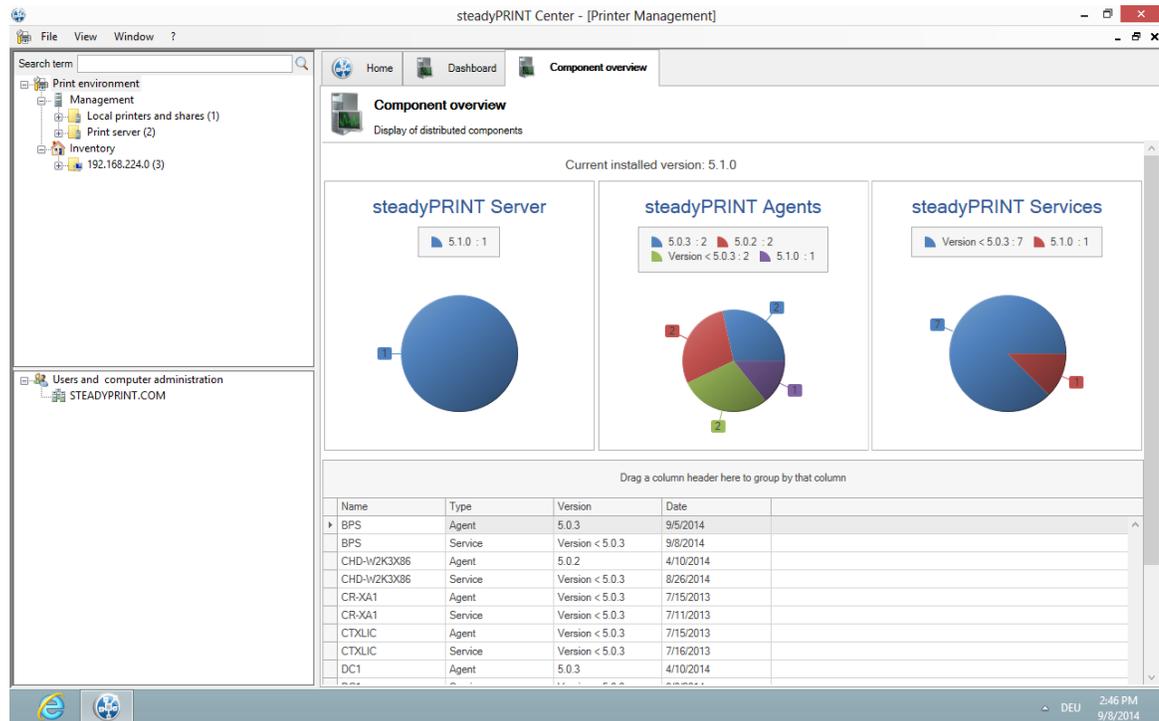


Figure 16: Component overview

Moreover, it is shown which versions are currently installed. There are three graphics divided into *steadyPRINT Server*, *steadyPRINT Agent* and *steadyPRINT Service*.

A list of all components is displayed below. There you will have the possibility to sort and filter by the respective columns. To do so, navigate over a column head and click the filter symbol. In addition, you can group by columns.

Moreover, the list can be exported via a right click.

### 3.4.2 Manual

This chapter describes the procedure of a manual update in an existing *steadyPRINT* environment. It particularly aims not to affect the running operations. The procedure described below enables the administrator to carry out an update successively and without any time pressure. The goal is to keep the *steadyPRINT Database* parallel. This means that all Clients combine to the new and parallel running database without any effect on older Clients.

## Backup of the Existing Database

The first step is to restore the existing *steadyPRINT Database*. A backup is for example done via the *Microsoft SQL Server Management Studio* under `[INSTANZNAME] > Databases > [STEADYPRINT`

DATENBANK] > Tasks > Back Up ....

## Parallel Import of Backup

---

The previously created backup of the database now has to be imported again under a different name. This procedure can for example be performed via the [Microsoft SQL Server Management Studio](#) under [INSTANZNAME] > Databases > Restore Database. The use of a suffix describing the respective **steadyPRINT** version is recommended:

Example (old database name): PrinterMap

Example (new database name): PrinterMap\_510

---

### **Important** *No Permission after Restoring the Database*

After restoring the database, the permission for the SQL user **may** be lost.

Adjust the permissions according to the [knowledgebase](#) entry on [www.steadyprint.com](http://www.steadyprint.com).

## Update the steadyPRINT Database

---

The update of the **steadyPRINT Database** must be done analog to chapter [Installing the Database](#). Enter the name of the **restored database** as database name on the interface and select the installation type **upgrade**. In the example above this would be the database **PrinterMap\_510**.

## Update of the Components

---

The update of the other **steadyPRINT** components (**steadyPRINT Center**, **steadyPRINT Agent** etc.) is performed in line with chapter [Installing the Program Components](#). It is a matter of choice to carry out an update or a new installation. Enter the **restored database** as a database name in the installation routine. In the example above this would be the database **PrinterMap\_510**.

**All information is provided without guarantee of completeness, accuracy and currentness.**

**Part**



## 4 Centralized Administration

The *steadyPRINT Center* is available to help you administer the printer environment in *steadyPRINT*. All functions necessary for the central administration of your printers have been brought together here.

The following will explain the individual program steps to be taken for the initial setup of a new print server using the administrative tools in *steadyPRINT*.

---

**Note**    *License Necessary*

When starting *steadyPRINT Center*, the license will be verified which is necessary to work with *steadyPRINT*. For more information concerning licensing, see section [License](#).

As an alternative, it is also possible to activate a [demo version](#). Please proceed as follows:

---

**Note**    *Activate Demo*

On the first start, the *steadyPRINT Center* asks whether you wish to activate the [demo mode for 30 days](#) or import a purchased license. To proceed, choose between those two options.

For questions concerning licensing, please contact the *steadyPRINT-Support* (see Chapter [Support](#)).

### 4.1 steadyPRINT Home Screen

#### General

---

In version 5.1 of *steadyPRINT* the new home screen is introduced for the first time (See figure [steadyPRINT home screen](#)).

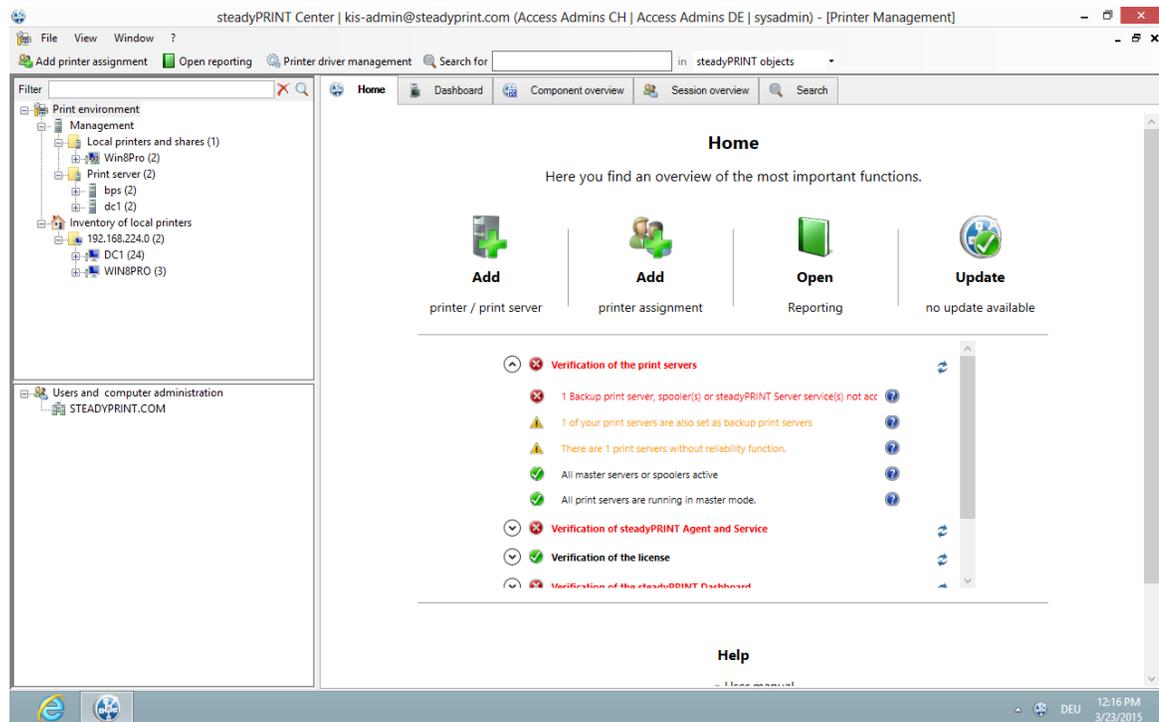


Figure <%HMFIGURECOUNTER%>: steadyPRINT home screen

Here, you get quick access to the functions.

1. Add Print Server / Add Printer
2. Add Authorizations
3. [steadyPRINT Reporting](#)
4. [steadyPRINT Update](#)

## Test Runs

Furthermore, thanks to the new test runs, you get a visual feedback on the state of your system as soon as the [steadyPRINT Center](#) is started.

Until now, the following cases have been tested:

- Examination of the master print server
  - Accessibility per Ping
  - Status of the print spooler (Also see [Warming up period of the print spooler](#))
- Examination of the backup print servers
  - Which print servers are protected against failures?
  - Existing print servers:
    - Accessibility via Ping
    - Status of the print spooler (Also see [Warming up period of the print spooler](#))
    - Status of the [steadyPRINT Server service](#)
- Examination of the [steadyPRINT Agents](#)
  - Which Agents in the [steadyPRINT](#) environment need an update?
- Examination of the [steadyPRINT Services](#)
  - Which services in the [steadyPRINT](#) environment need an update?
- Examination of the Microsoft SQL Server Native Client version on the server of the [steadyPRINT](#)

### Dashboard

- For an error-free performance of the [steadyPRINT Dashboard](#), at least version 11 of the Microsoft SQL Server Native Client is necessary.
- Examination of the configuration of the [steadyPRINT Dashboard](#)
- Examination of the [steadyPRINT Dashboard](#) service
- Examination whether a server is set for collecting printer status information.
- Examination of the validity of your license
- Examination of the expiration date of your license
- Examination of the available memory of the [steadyPRINT Database](#)
- Examination of the response time of the [steadyPRINT Database](#)
- Examination of incorrect assignments
  - Are there any assignments of users locked in the Active Directory?
  - Are there any assignments of users who no longer exist in the Active Directory? (check using the SID)

The screenshot (see Screenshot) shows an environment with 3 registered print servers.

Only for one of these 3 print servers a backup print server is stored on which the [steadyPRINT Server Service](#) is additionally switched off.

Below the test runs, you will also find the most important links to get into contact with the [steadyPRINT](#) team or to make use of the [steadyPRINT](#) support.

### Setting Options

In the settings of the [steadyPRINT Center](#) you also have the option to set up the page which is to open when starting the [steadyPRINT Center](#).

By default, this concerns the home screen (see figure [steadyPRINT HomeScreen - settings](#)).

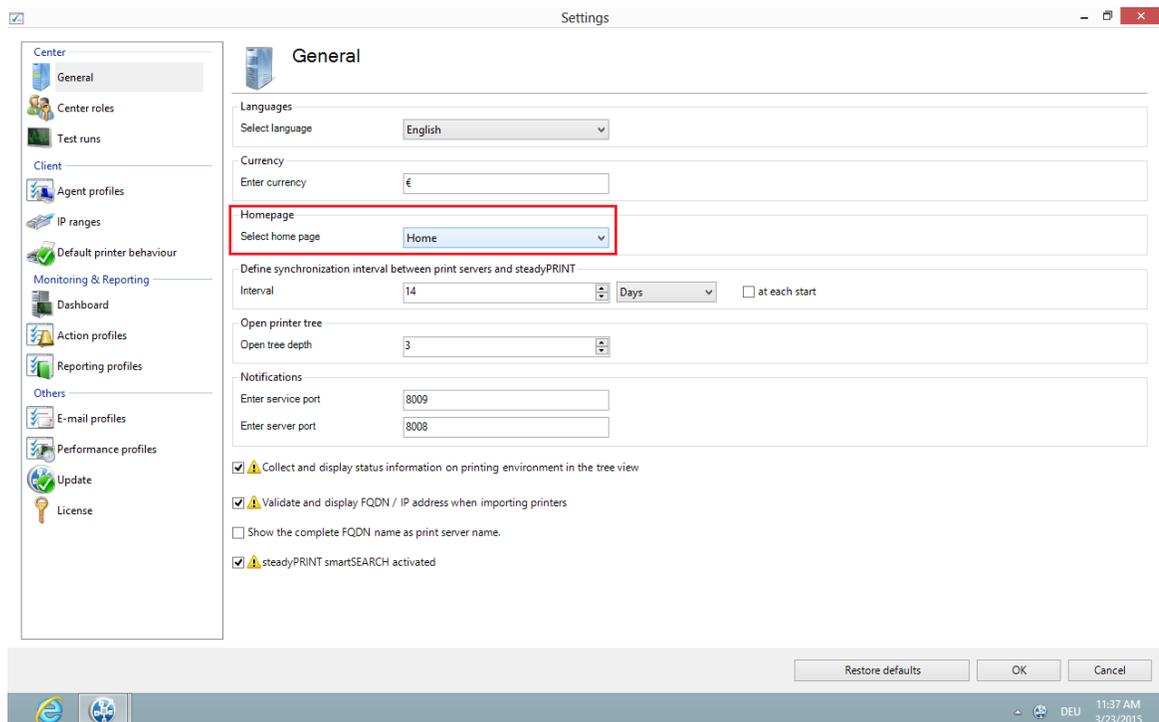


Figure 17: Home Screen - settings

Here you have the choice between

- [steadyPRINT Home Screen](#)
- [steadyPRINT Dashboard](#)
- [steadyPRINT Component Overview](#)
- [steadyPRINT Session Overview](#)
- [steadyPRINT Search](#)

## Component Overview

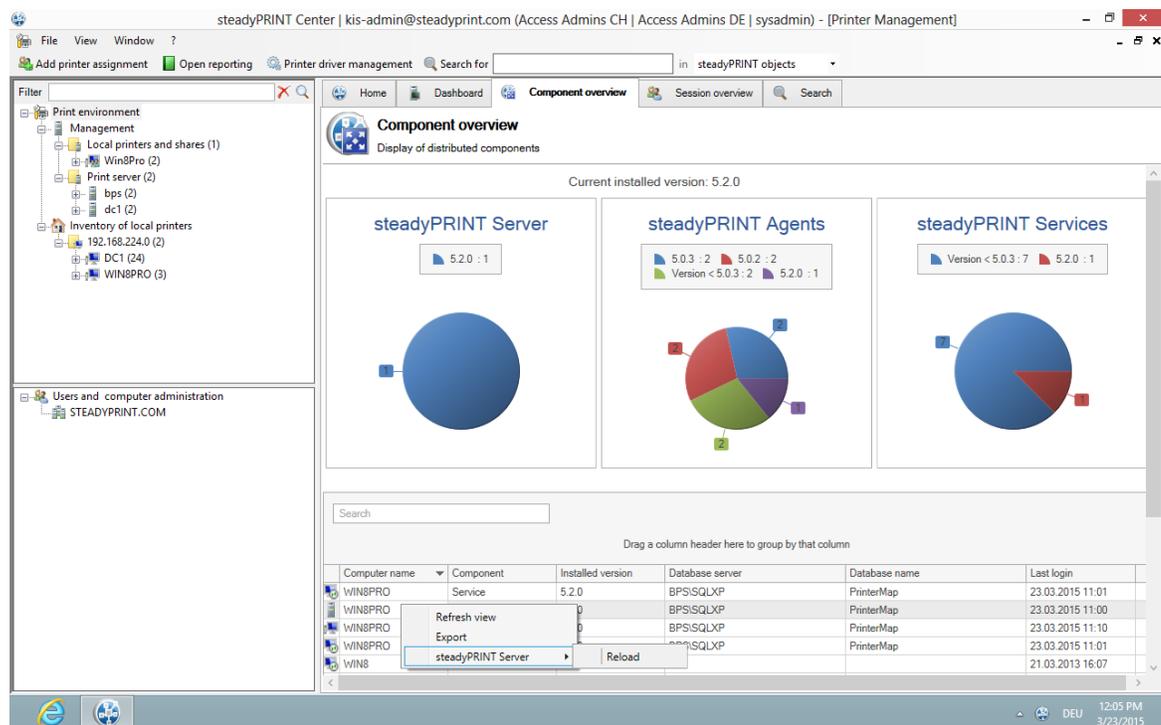


Figure 18: Home Screen - component overview

The **component overview** (See [Figure Home Screen - component overview](#)) shows the distribution of the individual components including the version number in your environment.

You have the possibility to export this list or to reload a **steadyPRINT Server**.

## Session Overview

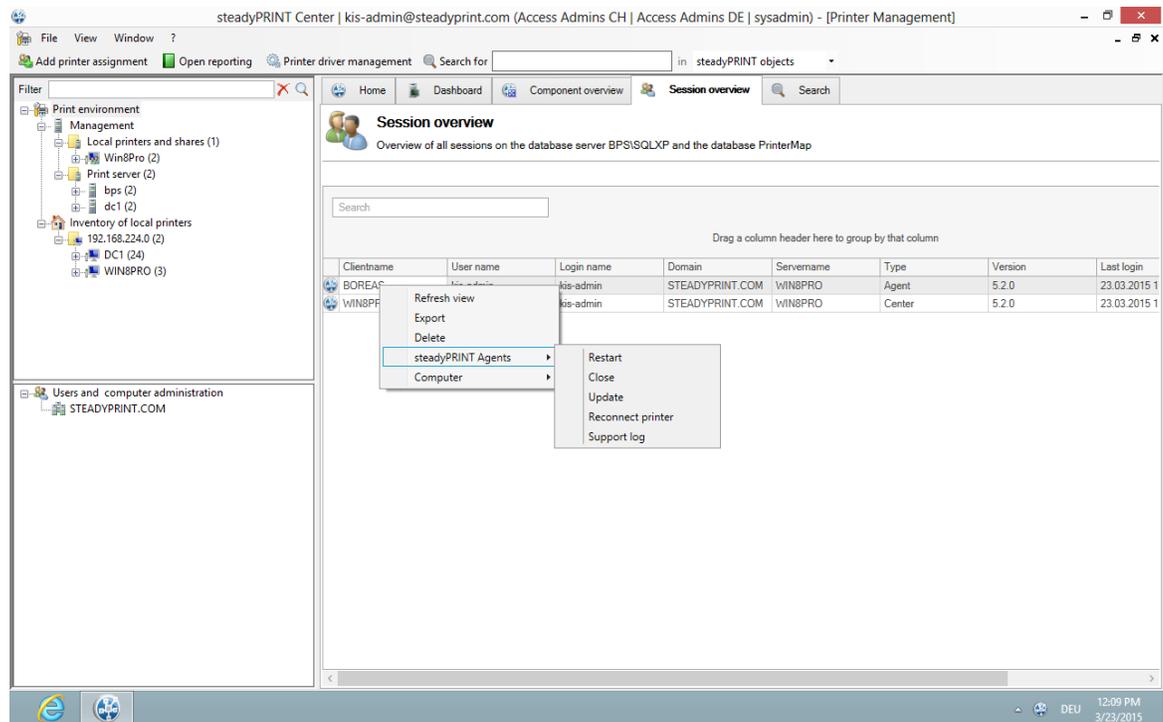


Figure 19: Home Screen - Session Overview

The [Session Overview](#) (See Figure [Home Screen - session overview](#)) shows all sessions in the current database. Sessions on older databases are no longer displayed.

Via the context menu, you have the possibility to perform various actions with the notification system:

- Via [Update](#), the whole view can be updated
- Via [Export](#), the list can be exported as usual
- Via [Delete Entry](#), the selected entries can be removed
- Under [steadyPRINT Agents](#), you have several possibilities to control the Agents remotely:
  - Via [Reboot](#) the Agent is restarted
  - Via [Close](#) the Agent is terminated
  - Via [Update](#) the automatic Agent Update is started
  - Via [Reconnect printers](#) the Agent is caused to recreate the printer connections
  - Via [Support-Log](#) a support log can be requested from the Agent and saved as a file

### Important Notification System

In order to send notifications via the [steadyPRINT Center](#), you might have to adjust the ports in the settings. The default port for the [steadyPRINT Service](#) is 8009 and vor the [steadyPRINT Server](#) 8008.

## steadyPRINT Search

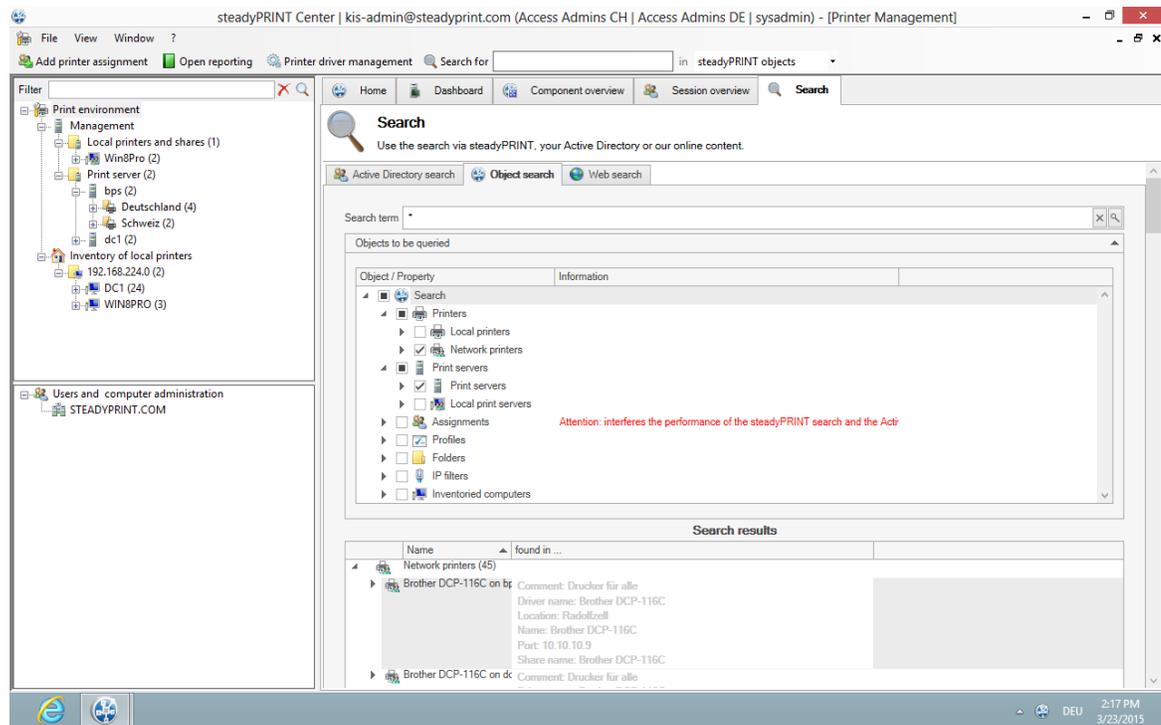


Figure 20: Home Screen - search

As of **steadyPRINT 5.2**, the **steadyPRINT Search** (See Figure [Home Screen - search](#)) enables you for the first time to search for objects in your entire **steadyPRINT** environment and to have all links displayed.

This way, you can find out in an instance which Agent profiles are assigned to a user, which objects share a certain IP filter, and the like.

Moreover, a new and improved Active Directory Search has been added via this interface allowing a cross-domain search and also restricting the search for certain object types.

In order to complete this component, you can also extend the search function to our online Knowledge Base and our Manual by using the tab Online Search.

For further information on this component and its various capabilities, please click [here](#).

## 4.2 Print Server Administration

To administer print servers and printers with **steadyPRINT**, it is first of all necessary to integrate them into the **steadyPRINT Center**. This is done by using the context menu of the administrative tool's tree view, [Figure - steadyPRINT Center - setting up a new print server via the context menu](#).

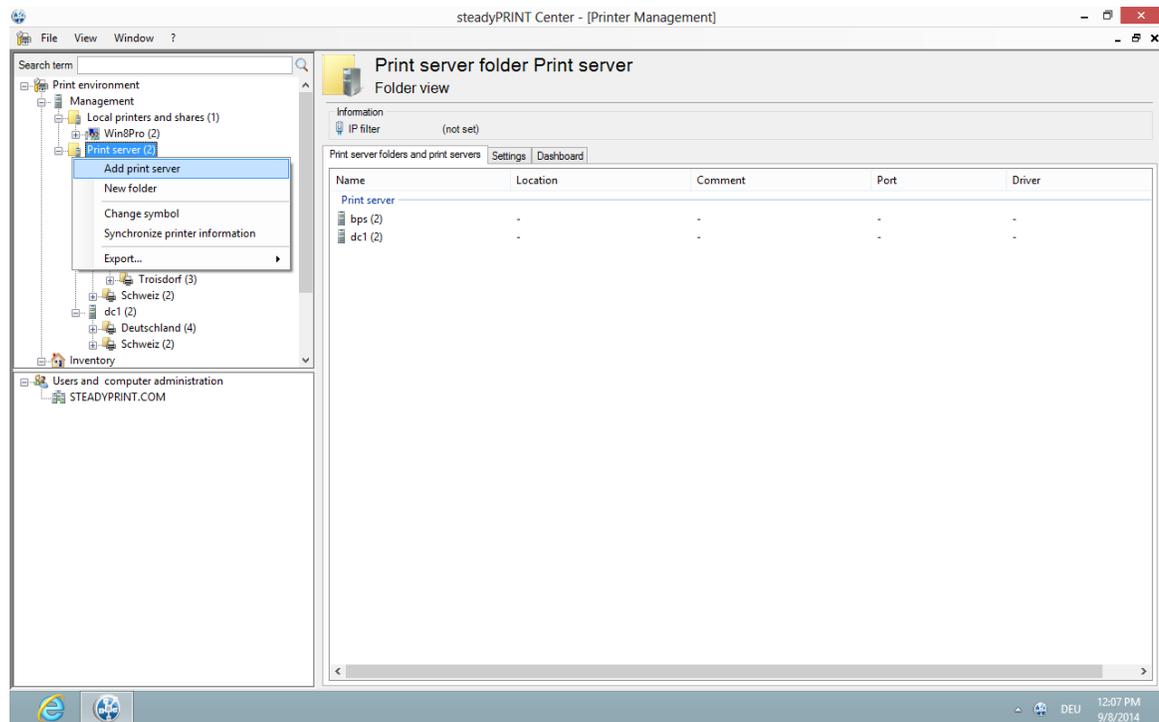


Figure <%HMFIGURECOUNTER%: steadyPRINT Center – setting up a new print server via the context menu

Adding a print server in the required role is done via the tree node [Local printers and shares](#) and [Print server](#).

### Print Server Role

There are currently two print server roles in [steadyPRINT](#) ([Print Server](#) and [Local Print Server](#)). The respective assignment is done during the import via the [steadyPRINT Center](#). A subsequent change is possible via the settings of the respective print server view.

### Print Server

This role represents a usual print server. The area of use for this role is the central management, reliability, migration as well as monitoring and reporting of the printing environment.

### Local Print Server

A local print server, however, is usually a normal workstation with printer assignments. The installed printers are able to connect users on their computers and to finally use the printing function. This kind of print server is particularly suitable for subsidiaries with only a few workstations. In this role, there are less functions ready to be used by the administrator. Reliability, migration and monitoring and reporting are not yet available.

The primary area of use is the remote administration of printers on remote workstations. It is not necessary for the administrators to open a remote session directly on the computer. The configuration of the printers is directly done via the [steadyPRINT Center](#). A [steadyPRINT Agent](#) installed on the workstation subsequently implements the configuration and informs about the installation status. If, for example, the computer cannot be started or is not accessible due to firewall rules, an installation is still possible. Only the access to the [steadyPRINT Database](#) must be available on the workstations.

## Importing Print Servers and Printers

Now the name of a print server is entered in the window seen in [Figure - steadyPRINT Center - importing a print server](#) allowing its connected printers to be listed. Disabled print servers can be re-enabled here by entering the name (also see [Disabling and Deleting Print Servers](#)).

---

**Note**     *Importing a Disabled Print Server from the Database*

When importing please note that all existing printer assignments remain set to *disabled ("locked")* by default in order to avoid accidentally connecting printers to the Clients. Otherwise, these assignments would have a direct impact.

To administer your printers with **steadyPRINT**, select them and then continue by clicking on the **Import** button.

---

**Tip**     *Organizing Printers in Folders*

Organize your printer environment in a clearly arranged folder structure. This can be done either subsequent to or directly during printer import.

After completing this action, the new print server with the selected printers appears in the tree view under [Printer Administration > Print Server](#).

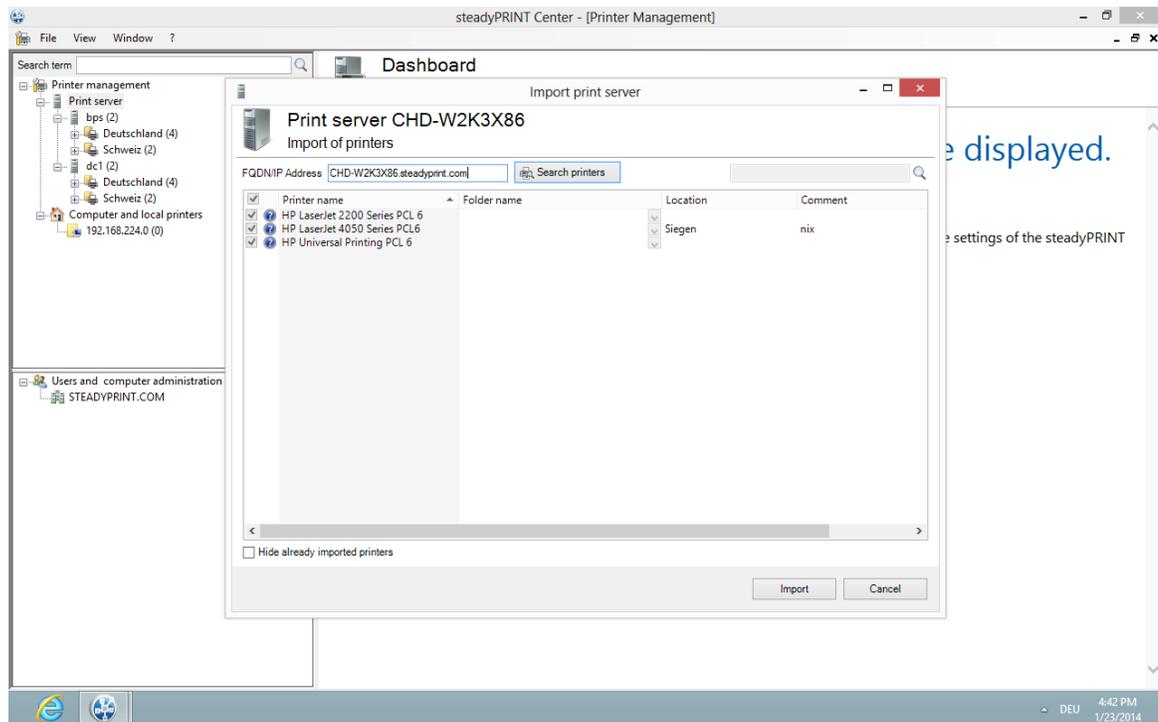


Figure <%HMFIGURECOUNTER%: steadyPRINT Center – importing a print server

### Note *Import of Print Servers via CSV File*

Importing print servers can also be done via a CSV file. This way, for example, you can simply import your print servers and printers from an inventory to **steadyPRINT**. This procedure is described in chapter [Import of print servers from a CSV file](#).

## Disabling and Deleting Print Servers

Removing a previously imported print server is possible using the context menu of the corresponding print server. By adding the check mark in [Figure - steadyPRINT Center - deleting a print server](#), you will erase the selected system - with all its printers and their assignments - irrevocably from the database.

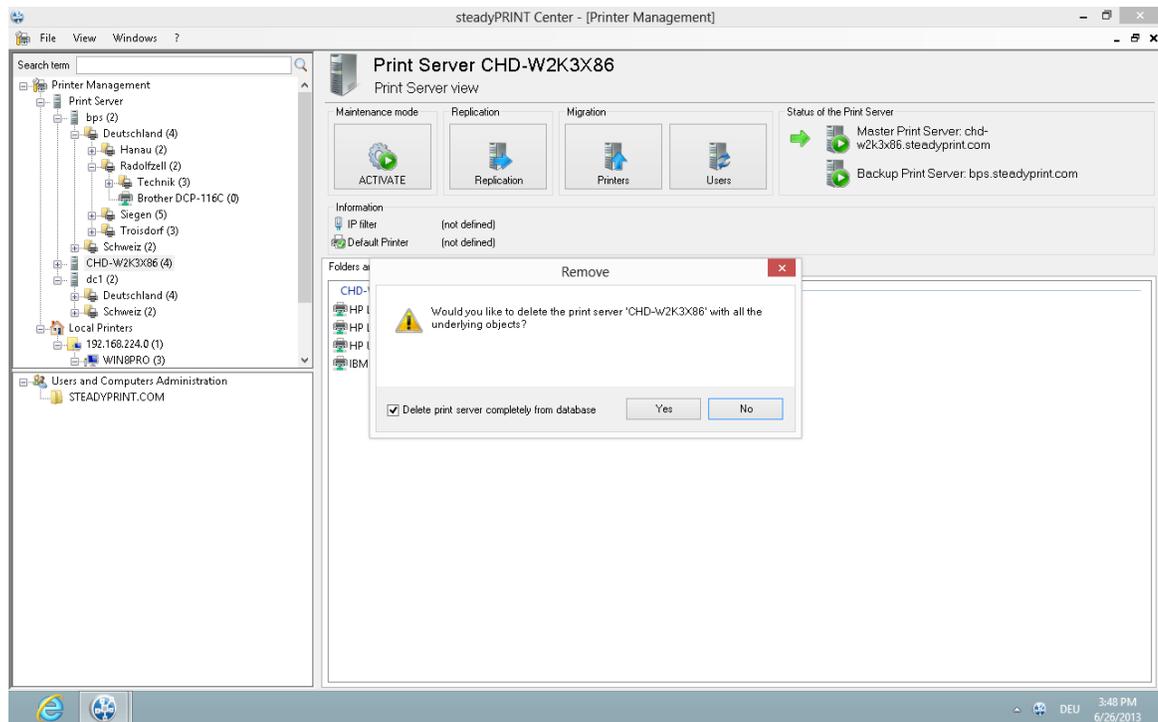


Figure <%HMFIGURECOUNTER%: steadyPRINT Center – deleting a print server

Otherwise the print server will merely be disabled - whereby it will subsequently no longer be visible in the *steadyPRINT Center*. Analog to [Importing Print Servers and Printers](#), you can re-import a disabled print server for subsequent use by entering the name.

#### Note *Disabling a Print Server*

Please note that only one disabled print server with the same name is allowed in the database. After disabling an additional print server, however, you can overwrite the existing one.

## 4.2.1 Local Print Servers

As described in chapter [Print Server Role](#), a local print server is intended to manage printers on remote computers. For setting up or managing an already existing printer, the administrator can make use of a clearly arranged interface which enables the configuration of all necessary settings.

### Importing Local Print Servers

The integration of workstations as a local print server can be done in different ways which are described below.

#### Default

By default, the import is done in line with a normal print server via the tree in the *steadyPRINT Center*. Select [Local Printers and Shares > Add Local Print Server](#) and proceed analog to [Importing Print Servers and Printers](#).

### Inventory

Once a workstation has been written to the [steadyPRINT Database](#) via the inventory function, it can be converted into a local print server via the context menu of the computer. Select [Clientname] > Add as Local Print Server and proceed analog to [Importing Print Servers and Printers](#).

### Inventory with Automatic Integration

In the course of the [Inventory](#) of computers, Clients can optionally and automatically be integrated as local print servers. Enable the option [Automatically Create Local Print Servers on Client at Printer Sharing](#) under [Settings > Agent-Profile > \[Profil\] > Inventory](#). At the next start of the [steadyPRINT Agent](#) the following actions will be performed:

1. Creation of folders based on the IP subnet mask below [Local Printers and Sharings](#) (provides a clear overview and filtering options of local print servers on the Client). Note: This step does not apply with manually created folders with the same name.
2. Creation of IP filters based on the IP subnet mask for previously created folders. (provides the filtering of local print servers on the Client) Note: This first step does not apply with manually created IP filters.
3. Integration of local print servers into previously created folders.
4. Adding the printers below previously integrated print servers.

### Import via CSV File

It is also possible to integrate workstations as local print servers including the existing printer connections by importing the Client via a CSV file. This procedure is described in chapter [Importing Print Servers from CSV File](#).

---

#### **Important**     *Visibility of Printers of a Local Print Server*

The visibility of local print servers, displayed in the window where printers can be added by the user in the [steadyPRINT Agent](#), is disabled by default. Otherwise the clear overview in the tree below regarding a variety of objects could suffer in the tree below. The option [Hide User from Local Print Server in the Agent](#) under [Settings > Agent-Profile > \[Profile\] > Display Options](#).

---

#### **Note**     *Assignment of Printers from a Local Print Server*

The assignment is done in line with a usual print server. (also see [Printer Assingment](#)).

---

## Administration of Local Printers

For the administration and configuration of the local printers of a workstation, [steadyPRINT](#) provides a separate interface (see figure [Local print servers](#)) with all necessary setting options for a remote management. In order to install a new printer, select [\[Local Print Server\] > Install printer](#) via the context menu. For uninstalling, please go to [\[Local Printer\] > Uninstall printer](#) and finally confirm the process.

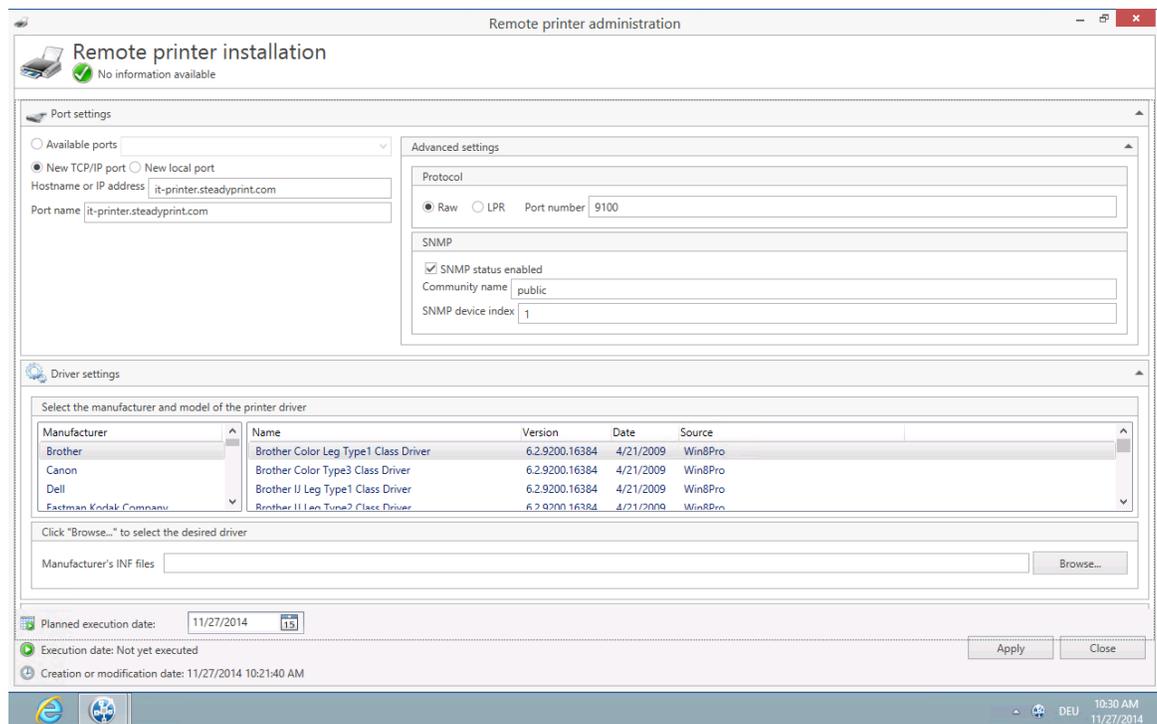


Figure <%HMFIGURECOUNTER%: Local print servers

### Connection Settings

The printer connection can be selected or configured in the settings. In this context, the following options are available:

- Existing connections: Select an already existing connection
- New TCP/IP connection: Configure a new connection and if necessary further settings.
- New local connection: Configure a new local connection.

In order to keep the printer connections available even in switched-off state, the option [Inventory Computer Information](#) under [Settings > Agent-Profile > \[Profile\] > Inventory](#) should be enabled. If the computer is accessible, the [steadyPRINT Center](#) additionally performs the inventory of the connections.

### Driver Settings

Open the driver settings and select the printer driver which is to be used during the printer installation. By default, the [steadyPRINT Center](#) attempts to determine the current and available drivers on the target system. If this procedure fails, a fallback to the supplied Inbox drivers of the operating systems is carried out.

As an alternative, a printer driver can be provided for installation via the [INF file](#) of the respective manufacturer. To do this, click [browse...](#) and select the required file. Subsequently, a list of all drivers is displayed.

### Important *File Shares*

Make sure that during the installation process the specified share can be accessed .

### Settings Printer

Enter the printer name here and configure its share. Furthermore, it is possible to define the printer settings.

## Execution Time of Printer Configuration

After saving the printer configuration for the (de-) installation, the **steadyPRINT Center** attempts to notify the affected computer directly. Should the notification fail, an error message is displayed. In addition, the **steadyPRINT Service** checks on each start and at configurable intervals if any changes have been made and realizes them respectively. The interval can be adjusted via the option **Local Printer: Update Interval for Local Printers** under **Settings > Performance > [Profile] > steadyPRINT Service**.

### Important Necessary Components

To run the printer installation on the local print server, the **steadyPRINT Agent** and **steadyPRINT Service** are necessary.

### Important Required Authorizations

To run the printer installation or de-installation, a service account for the **steadyPRINT Service** is required performing administrative processes (e.g. printer driver installation and access to an optional file share for the manufacturer's INF file). The information is given during the **installation of steadyPRINT** or subsequently via the **Windows Service Manager**.

## Frequent Errors and Warnings

After the execution of the printer configuration, a feedback message on the installation status appears in the upper configuration window (see figure **Local Print Servers**). In the following, a list of frequent errors and warnings that might occur during the remote printer installation is displayed.

**Error message:** The printer driver [name] which is possibly not available on the computer [Client] could not be installed.

**Possible causes:**

- Specified driver not found
- Driver architecture not compatible with target system

**Error message:** The printer [printer name] could not be added to the print server [print server name]: Access denied.

**Possible causes:**

- Configured service account of **steadyPRINT Service** has no administrative rights to access target system
- Configured service account was not added to the local safety setting **Register as service**.

**Error message:** The printer [printer name] could not be added to the print server [print server name]: The format of the specified share name is incorrect.

**Possible causes:**

- Share name contains invalid characters
- Share name already exists

**Error message:** The printer [printer name] could not be added to the print server [print server

name]: The printer driver is unknown

**Possible causes:**

- Configured printer driver could not be installed
- Configured printer driver was not found
- Driver architecture not compatible with target system

**Warning:** When trying to notify the computer „[computer name]“ of the modified printer configuration, an error occurred.

**Error message:** Service PAS cannot be opened on the computer [computer name]. Access denied.

**Possible causes:** The current user running the *steadyPRINT Center* has no administrative rights to access the target system

**Note:** The implementation of the printer configuration is done according to the interval (see chapter [Execution Time](#)).

**Warning:** When trying to notify the computer „[computer name]“ of the modified printer configuration, an error occurred.

**Error message:** The service control manager on the computer [computer name] cannot be opened. You are possibly not authorized to run this process. The RPC server is not available.

**Possible causes:**

- Target system is switched off or inaccessible
- Target system is inaccessible due to firewall and/or routing settings.
- The current user running the *steadyPRINT Center* has not administrative rights to access the target system

**Note:** The implementation of the printer configuration is done according to the interval (see chapter [Execution Time](#)).

## 4.3 Printer Assignment

Printer connections are generated in *steadyPRINT* through the assignment of Active Directory objects (Users, Computers and Groups) from *steadyPRINT Center*'s *User and Computer-Administration*. All objects stem from Windows' *Active Directory*, which is mapped in an analog structure. If assignment changes take place, these immediately take effect on the workstations and clients on which the *steadyPRINT Agent* has been installed. They are continuously notified of any changes made. In this way, for instance, an adjustment of the printer assignments for a specific user leads to the communication of this fact to the user and also to an updated configuration of printer connections.

To assign objects to a printer, first select the printer in the tree view, open the context menu and then select *Assign Printer* in the context menu. The [figure - steadyPRINT Center - user and computer administration](#) shows the *User and Computer Administration* view in which users, computers and groups from your Active Directory are available for printer assignment. To create a printer connection, you can add an object to be administered – *herzog* on the upper right side, for instance - via the *Add* button to the assignment list. Once this action is completed, the log in item will be found in the selected printer's listing.

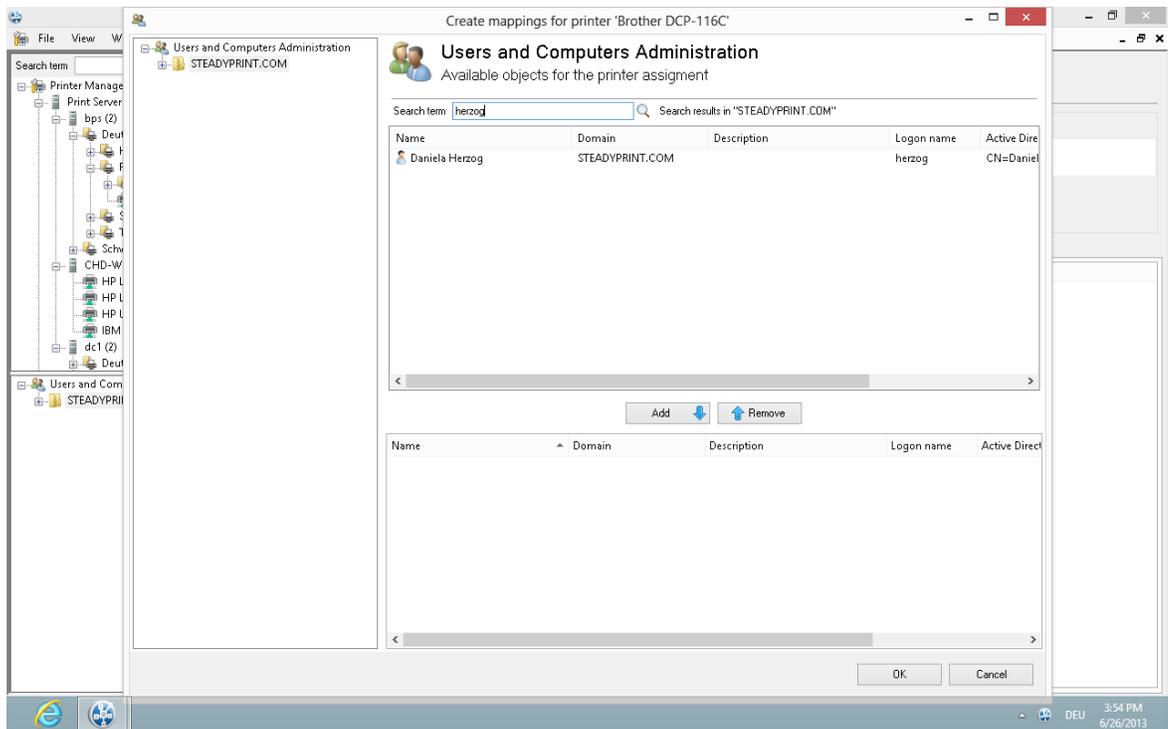


Figure <%HMFIGURECOUNTER%: steadyPRINT Center - user and computer administration

### Note *Import of Printer Assignments via CSV File*

In **steadyPRINT**, the printer assignment can also be realized via CSV file. This way, you can, for example, simply import your printer assignments including default printer from an inventory to **steadyPRINT**. The procedure is described in chapter [Import of printer assignments from CSV file](#).

## Sharing and Blocking Printers

Printers administered with **steadyPRINT** can be shared and blocked in a precise, fine-tuned way by means of the Active Directory objects at your disposal (see [Figure - steadyPRINT Center - connection settings for printer – the first check mark](#)). By default, all assignments are enabled. It is possible to configure the share either by using the printer display or with the context menu of the respective object.

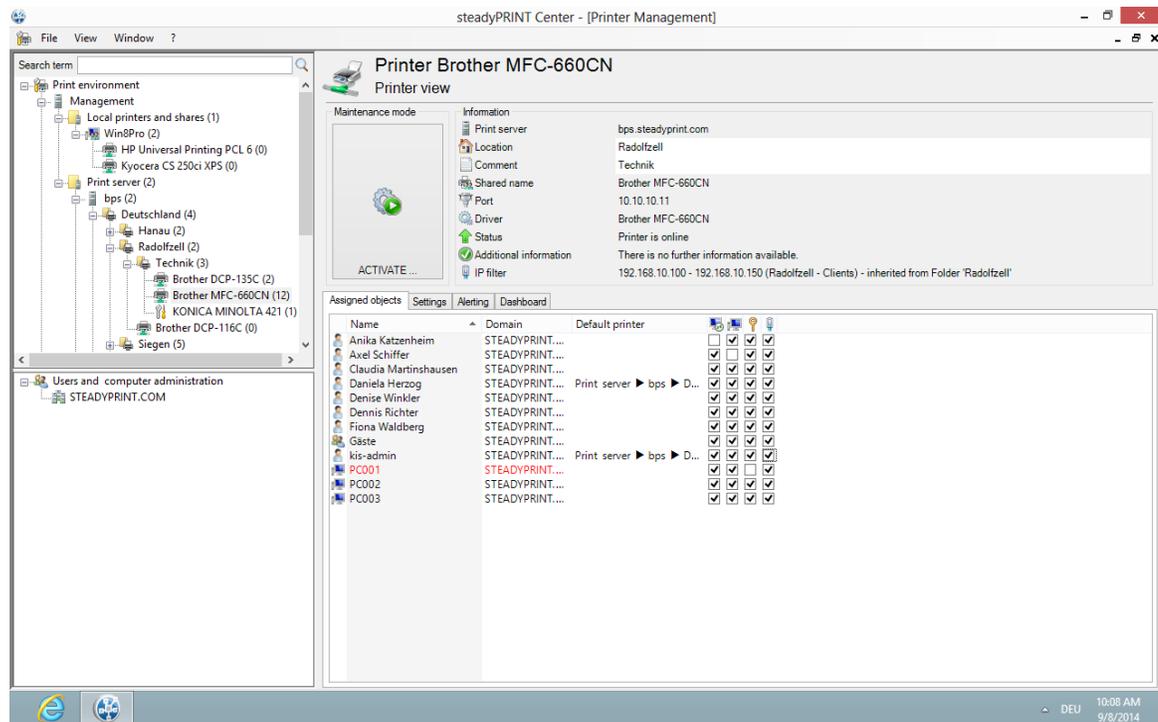


Figure <%HMFIGURECOUNTER%>: steadyPRINT Center – connection settings for printer

Blocking a printer with **steadyPRINT** means that it is no longer connected to the user, the computer or the group. Furthermore, it is not possible for the user to add it with the **steadyPRINT Agent**.

In addition, you have the possibility to share blocked printers with individual users, computers or groups. In this context, it is necessary to pay attention to the priority of the respective assignments:

- User = Priority 1 (high),
- Computer = Priority 2,
- Group = Priority 3 and
- Organizational unit = Priority 4 (low).

### Tip *Sorting Assignments by Priority*

Use the first column of [Figure - steadyPRINT Center - Connection Settings for Printer - Connection Settings for Printer](#) in order to sort the assignment by its priority.

The following scenarios describe the behavior in various constellations with the user **Dennis Richter** being in the group **Domänen-Benutzer** and working on computer **PC001**.

#### Scenario 1

[Figure - steadyPRINT Center - scenario 1 for assignment](#) shows the assignments of the printer **TOSHIBA e-STUDIO853** for the user **Dennis Richter**, the computer **PC001** and the group **Domänen-Benutzer**.

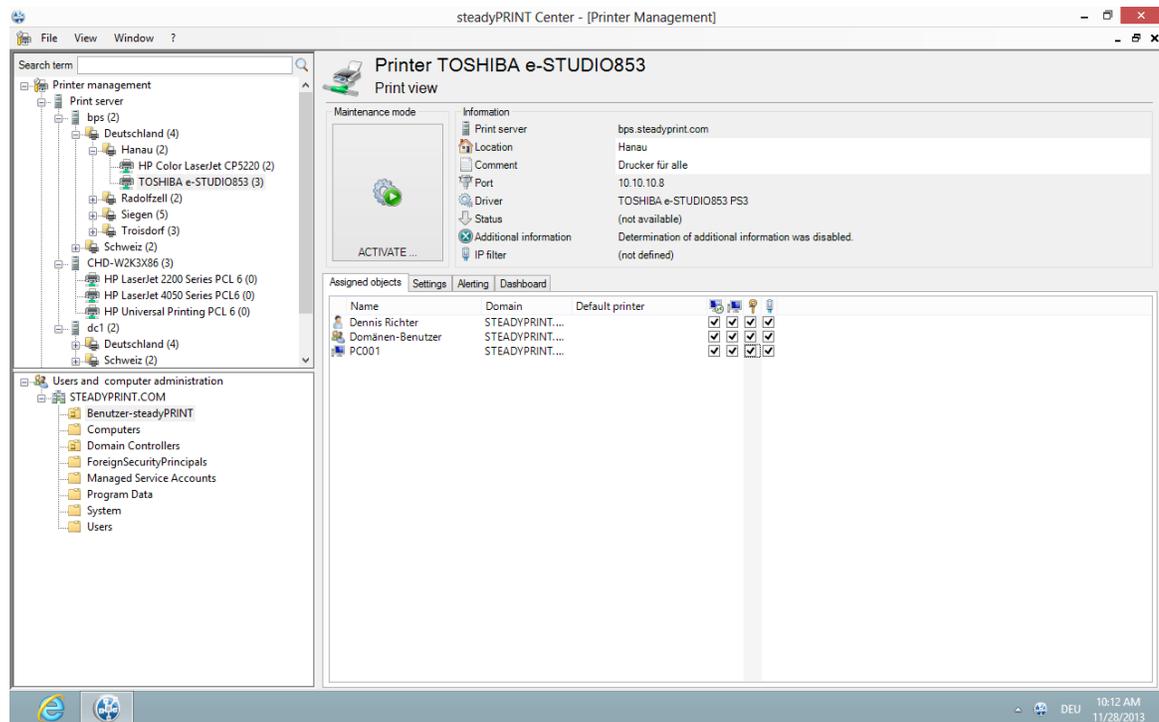


Figure <%=HMFIGURECOUNTER%>: steadyPRINT Center - scenario 1 for assignment

## Scenario 2

[Figure - steadyPRINT Center - scenario 2 for assignment](#) shows the assignment of the printer TOSHIBA e-STUDIO853 for the user Dennis Richter and the computer PC001. This printer is not available to the other users of the group Domänen-Benutzer.

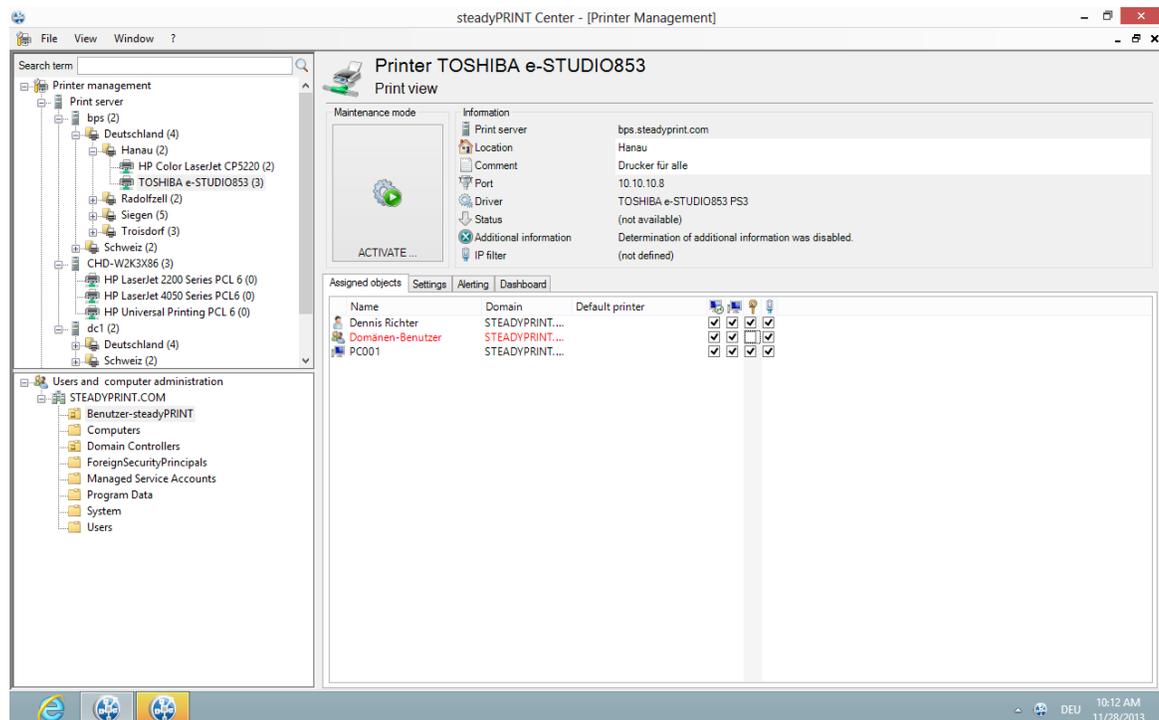


Figure <%HMFIGURECOUNTER%: steadyPRINT Center - scenario 2 for assignment

### Scenario 3

Figure - steadyPRINT Center - scenario 3 for assignment shows the assignment of the printer TOSHIBA e-STUDIO853 for the group Domänen-Benutzer. The user Dennis Richter as well as all other users working on computer PC001, do not have access to the printer.

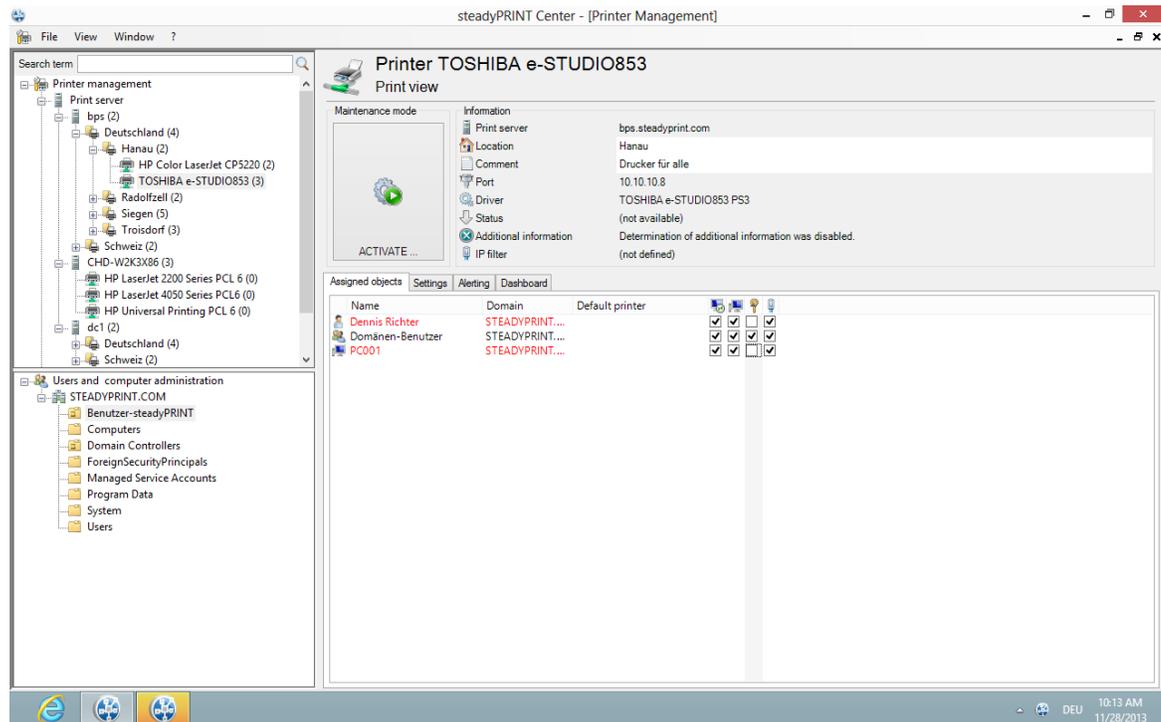


Figure <%HMFIGURECOUNTER%: steadyPRINT Center - scenario 3 for assignment

#### Tip *Deleting Manually Created Printer Connections*

Using Settings under Agent Profile, you can select whether or not the printer connections not being administered by **steadyPRINT** are to be deleted from the **steadyPRINT Agent** at startup. With this, it is possible to automatically remove printers that were added manually by the user via the Windows printer directory.

### Connecting Printers on Terminal Servers and/or Workstations

For every Active Directory object in **steadyPRINT**, you can decide whether the assigned printer should be specially connected to a terminal server and/or a workstation (see [Figure - steadyPRINT Center - connection settings for printer](#) second and third check mark). This allows a dedicated and differing printer connection for the user in the local as well as a terminal server session.

### Setting IP Filters

An IP filter allows providing printers for selected IP address areas. If the user's client does not have an IP address that falls within the range of the configured filter, neither can a connection be made to the respective printer nor will it be displayed in the *steadyPRINT Agent*. Only an optionally definable exception (see [Figure - steadyPRINT Center - Connection Settings for Printer – fourth check mark](#)) allows the suspension of the IP filter for individual log in items (users, computers and groups).

You can configure IP filtering for print servers, folders and printers (accessible over the corresponding tab *settings* of the respective view). Established IP filters automatically pass on their settings to the objects lying below until these objects are either overwritten or canceled.

---

**Tip**      ***Location-based Printer Assignments***

Display your business locations in *steadyPRINT Center* in the form of folders and define the respective IP address areas. On the basis of IP filters, you then let the printers be displayed and connected based upon their location.

---

## Setting Default Printers

Setting the default printer is done via the properties of the respective log in item and is possible for users, computers and groups. Additionally, *steadyPRINT* offers the possibility of defining a default printer for folders and print servers (accessible over the respective tab *Settings* of the respective view).

It is possible to define several default printers for every log in item. If this is the case, a selection dialog box automatically appears for the user. The user can then select a particular default printer from the defined printers.

---

**Important**      ***Observe the settings for default printer performance***

Observe the setting possibilities for default printer performance in order to attain the desired configuration.

You can find additional information about this in chapter [Default Printer Performance](#).

### 4.3.1 Local Default Printers

With the implementation of *steadyPRINT* version 5.1, it is now possible to define local default printers even from the *steadyPRINT Center*.

This enables the user via the *steadyPRINT Agent* as well as the administrator via the *steadyPRINT Center* to turn a printer that exists on the local computer of a user into a default printer.

---

**Note**      ***Availability of Local Printers***

To be able to manage local printers in the *steadyPRINT Center*, it is necessary to take inventory beforehand.

You will find more detailed information under [Inventory](#).

In case the inventory has not been completed before the user turns a local printer into a default printer, the **steadyPRINT Agent** automatically performs a one-time inventory.

### Procedure in the steadyPRINT Center

---

The management of local default printers works in line with the already known settings of network printers. Please go to chapter [Printer Assignments](#) to learn more about the functioning.

---

**Note**      *Options of Local Default Printers*

Setting up local default printers is only allowed at user- and computer level.

### Behaviour of the Priority Lists

---

In the settings of the **steadyPRINT Center**, a new entry for the local default printers is listed in the priority lists.

Its behaviour seamlessly interacts with the existing methods of the priority lists.

## 4.4 Authorizations in the steadyPRINT Center

The **steadyPRINT Center** has its own permission system on the basis of roles handling the authentication as well as authorizations to access functions and objects.

### Roles

---

Individual roles can be defined and domain accounts added via [file > settings > Center roles](#) in the **steadyPRINT Center** (see figure [steadyPRINT Center - overview of roles](#)).

At first, a newly created role has no permissions - these must be granted in a dedicated mode. The mandatory and predefined role **sysadmin**, however, has full access to all objects and settings in the **steadyPRINT Center**. When initially creating the **sysadmin** role, **steadyPRINT** automatically adds the group [Builtin\Administrators](#) as well as the user who starts the **steadyPRINT Center** for the first time. An adjustment of authorized administrators, however, can be done subsequently.

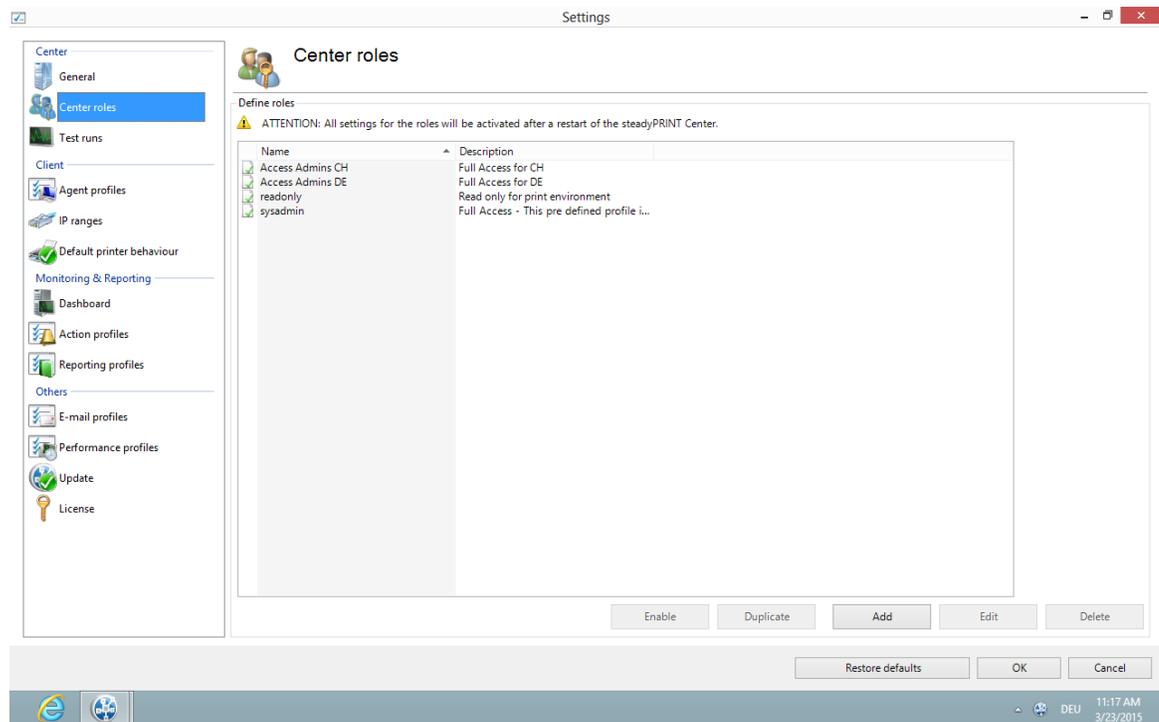


Figure 21: steadyPRINT - Figure 22: steadyPRINT Center - overview of roles

## Role Properties

In the properties of a Center role, access permissions for the stored accounts (users, groups and computers) are granted within the *steadyPRINT Center*. The permissions themselves are divided into different areas and assigned to certain levels. (see figure [steadyPRINT Center - roles](#)).

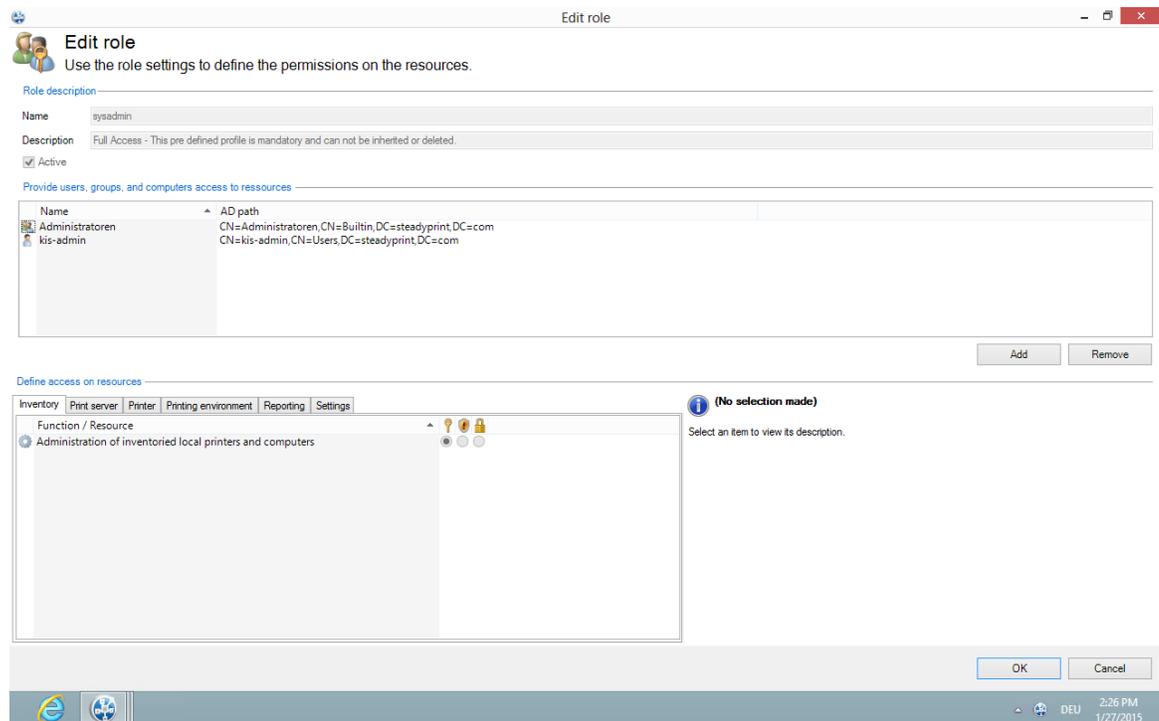


Figure 23: steadyPRINT - roles

### Permissions

There are 3 levels available for granting permissions to access functions and objects:

- Grant: Grants full access to the function and/or object.
- Read only: Grants reading access to the object.
- Deny: Denies the access to the function and/or object.

**Note**     *Hiding particular print servers, printers and folders in the tree*

By assigning the permission **Deny** to the administration of print servers and printers, you can hide them for desired accounts. Print servers, printers or folders are thus not displayed in the **steadyPRINT Center** (see [Linking roles to objects](#)).

### Linking roles to objects

In the **steadyPRINT Center**, permissions are granted to print servers, printers as well as folders by linking the available roles.

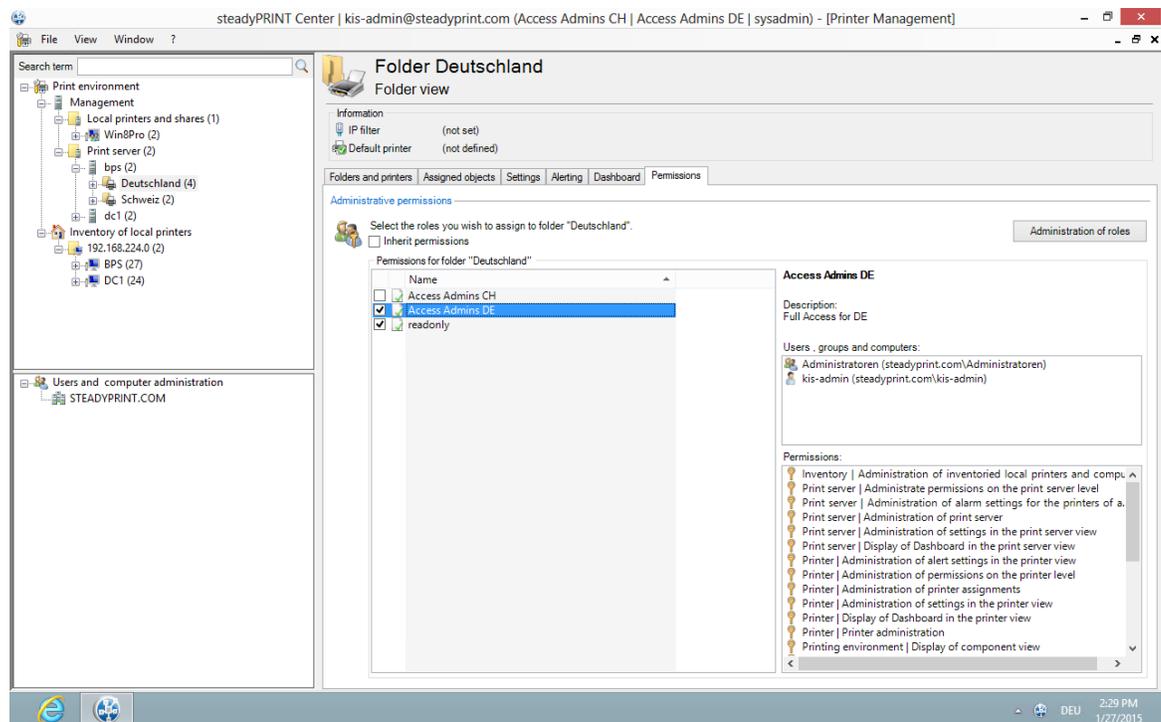


Figure 24: steadyPRINT - linking the roles

The figure [steadyPRINT Center - linking the roles](#) shows the granting of a permission on folder level below the print server **bps**. Thus, the role **Access Admin DE** gets access to the folder **Deutschland** as well as all other objects (printers and folders) below.

**Note**     *Linking the role sysadmin*

The mandatory and predefined role **sysadmin** is neither visible nor can it be deselected.

## Inheritance

By marking the check box [Inherit permissions](#) from figure [steadyPRINT Center - linking the roles](#), roles are inherited from the object lying above. An inheritance takes place until it is canceled again by linked roles on an object lying below.

## Authentication and Authorization

The *steadyPRINT Center* authenticates a user on the basis of the roles and the included accounts. If the authentication against the available roles fails, the *steadyPRINT Center* enables a login with an alternative user or the termination. (see figure [steadyPRINT Center - authentication failed](#)).

### Note *Authentication by group affiliation*

The *steadyPRINT Center* authenticates the user due to his/her group affiliation. In doing so, an evaluation of nested groups takes place.

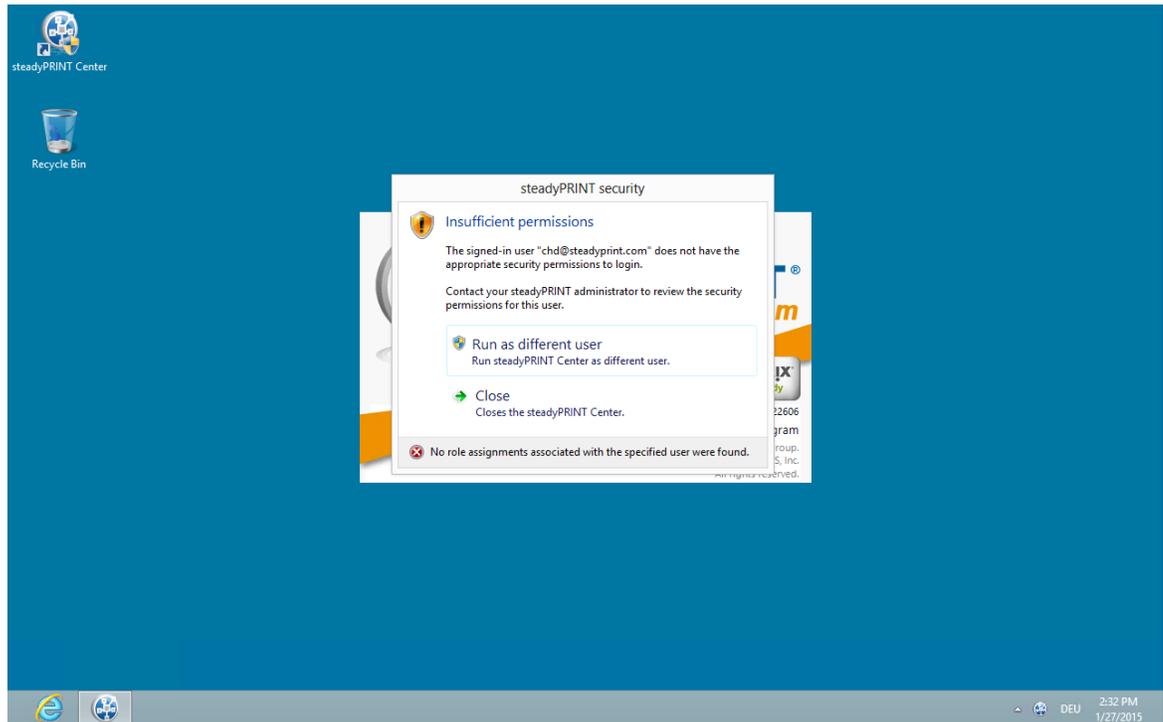


Figure 25: steadyPRINT - authentication failed

In order to authorize the access to a function or an object, the *steadyPRINT Center* verifies all available roles assigned to the user. Finally, the highest permissions level (high = Grant, low = Deny) will be used for the authorization process. The following figure [steadyPRINT Center - authorization](#) shows an example for an unauthorized access to functions and objects.

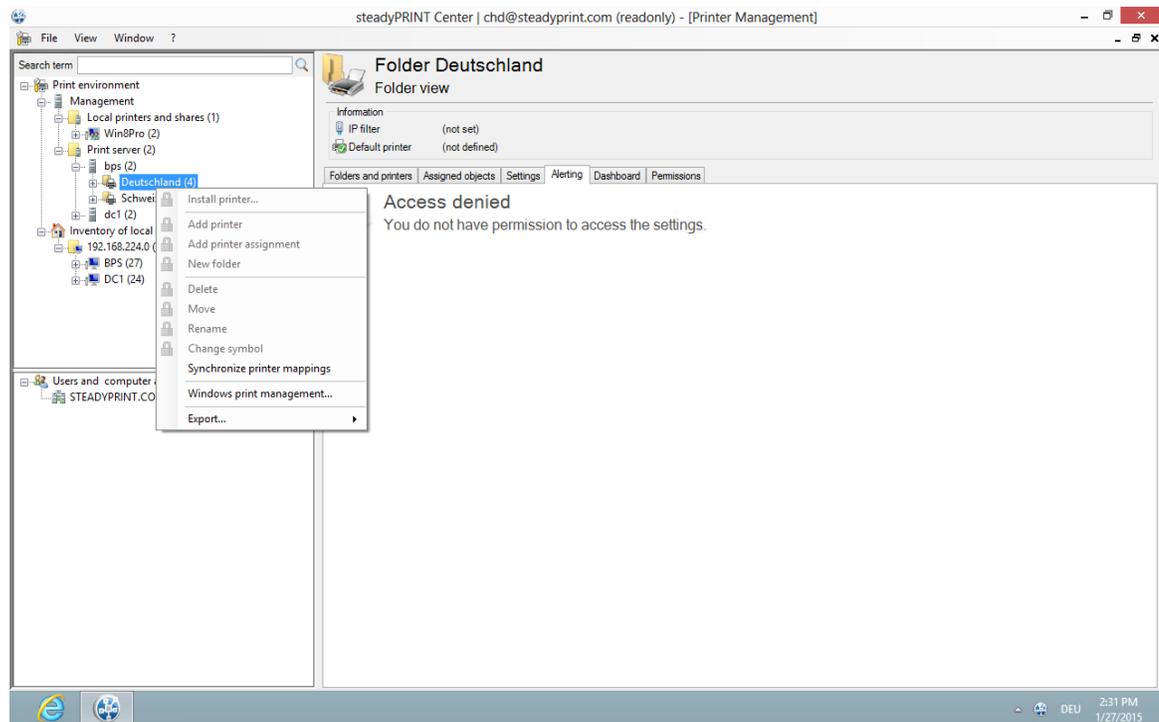


Figure 26: steadyPRINT - authorization

## 4.5 Taking Inventory of Computers and Local Printers

Taking inventory allows you to have a comprehensive view of computers and local printers connected to clients. These include for example the resources of a computer as well as printers connected via USB or LPT interface. Thin Clients are currently excluded.

The *steadyPRINT Agent* is responsible for the inclusion of computers and printers. The inventory process takes place every time the Agent is started. After gathering the information, computers and local printers can be found in the *steadyPRINT Center* under the separate tree node *Inventory of Local Printers*. To guarantee this overview of the respective printers, they are assigned to the client and the IP network. The network address is determined by the client's IP address and the subnet mask available. If the client is located in different IP networks due to multiple network adapters, the *steadyPRINT Agent* creates a separate entry for each network. Additional information like users logged on to the client and other diverse details can be found under the detail view of the respective device (please see [Figure - steadyPRINT Center - inventory of local printers](#)).

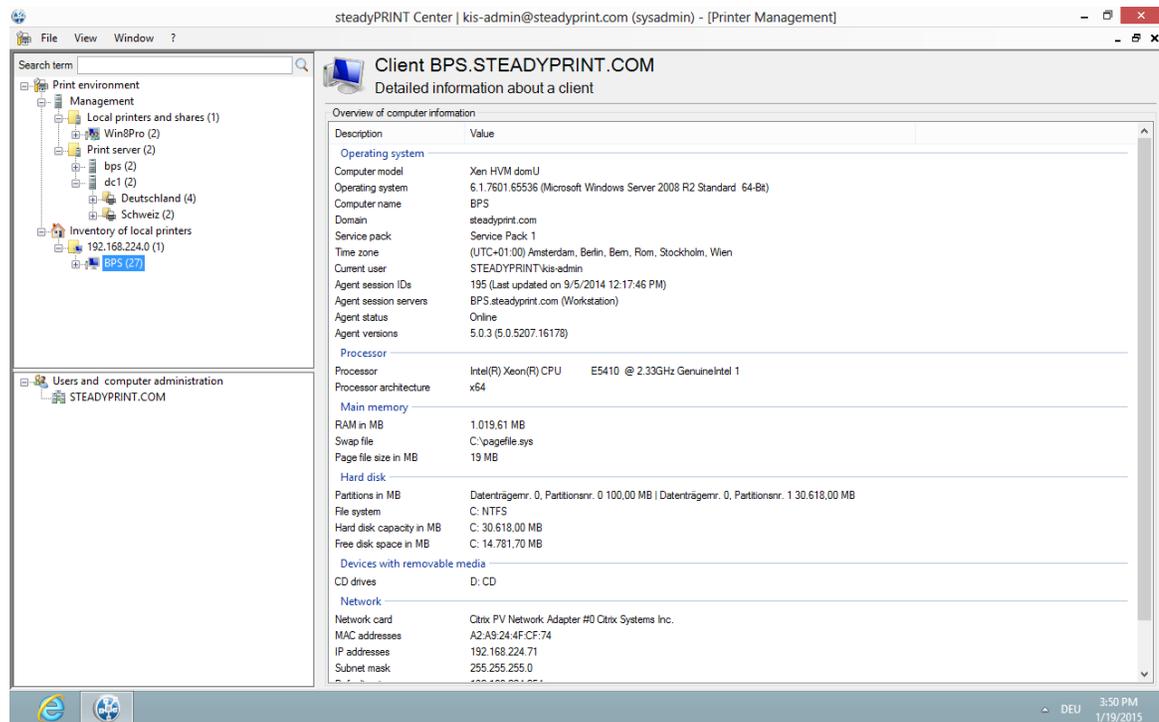


Figure <%HMFIGURECOUNTER%: steadyPRINT Center – inventory of local printers

To enable the inventory process for computers and/or local printers, the setting [Inventory of computer information](#) and/or [Inventory of local printers](#) must be enabled under [Settings > Agent Profiles > \[Profile\] > Inventory](#) in the *steadyPRINT Center*. You can also set the maximum data storage size for local printers and configure a display filter for the *steadyPRINT Center* here. Add the printers to the filter that you wish to mask out.

#### Note **No Inventory for Remote Sessions**

The *steadyPRINT Agent* performs an inventory only in a local workstation-session.

#### Note **Clients without Printer**

To ensure a better overview, clients without printers are not displayed by the *steadyPRINT Center* in the tree node.

## 4.6 Citrix Client Printer (Citrix Universal Printer Driver) with steadyPRINT

Citrix offers the possibility and technology to transfer a client printer into the terminal server session without having to install additional manufacturer drivers on the [Citrix XenApp Server](#). In this way, this feature offers a compression of the print data stream. To ensure the functionality, Citrix-owned drivers and services that are locally installed on the Citrix XenApp Server are required and used. Citrix describes the entire subject in the following document: <http://support.citrix.com/serNet/KbSerNet/download/32205-102-691166/Printing%2520Planning%2520Guide.pdf>

## Procedure for Using Citrix Client Printers with steadyPRINT

Installing the *steadyPRINT Agent* on the workstation and the Citrix XenApp Server is a prerequisite for the automatic set-up and transfer of client printers to the terminal server session by using the Citrix Universal Printer Driver. The printers can also be used on the client without Agent, the management of the client-printer connection, however, has to be done manually.

Steps:

1. Activate the option [Use Citrix Universal Printer Driver \(UPD\) on XenApp-Server](#) under [Agent-Profiles](#) in the *steadyPRINT Center* settings.
2. Add a printer assignment to the client or the Citrix XenApp Server via the *steadyPRINT Agent* or to a user, a group or a computer via the *steadyPRINT Center*.
3. The *steadyPRINT Agent* on the client connects the required printer for the effected printer assignment.
4. Finally, the *steadyPRINT Agent* on the Citrix XenApp Server creates the client printer using the Citrix Universal Printer Driver.
- 5.

### Note **Connection Period of Citrix Client Printers**

In case the printer is not directly available on the client, the set-up of the client printer on the Citrix XenApp Server may take a moment and is thus available after a short waiting period.

### Note **Disabling the Option for Administrative Driver Installation on a Terminal Server**

Make sure that the option Administrative Driver Installation on a Terminal Server is disabled. Otherwise the manufacturer driver is automatically installed from the print server to the Citrix XenApp Server by the *steadyPRINT Agent*.

### Note **Use of Pre-Installed Manufacturer Drivers**

When installing the printer connection, the *steadyPRINT Agent* at first tries to use the manufacturer driver. Only if this is not available and the option Administrative Driver Installation on a Terminal Server is disabled, the *steadyPRINT Agent* used the Citrix Universal Printer driver for installing the session printer.

### Note **Restoration of Old Session Printers**

By default, a restoration of old session printers is done by means of a pre-defined Citrix guideline. Thus, the user might see the client printer multiple times resulting from different user sessions. To prevent this effect, you can disable the corresponding Citrix guideline and assign it to the respective users. You will find the guideline itself in the Citrix AppCenter under [\[guideline\] > ICA > Print > Client Printer > Stored and Restored Client Printers](#) (see [Figure - Citrix Guideline - Restore Client](#)

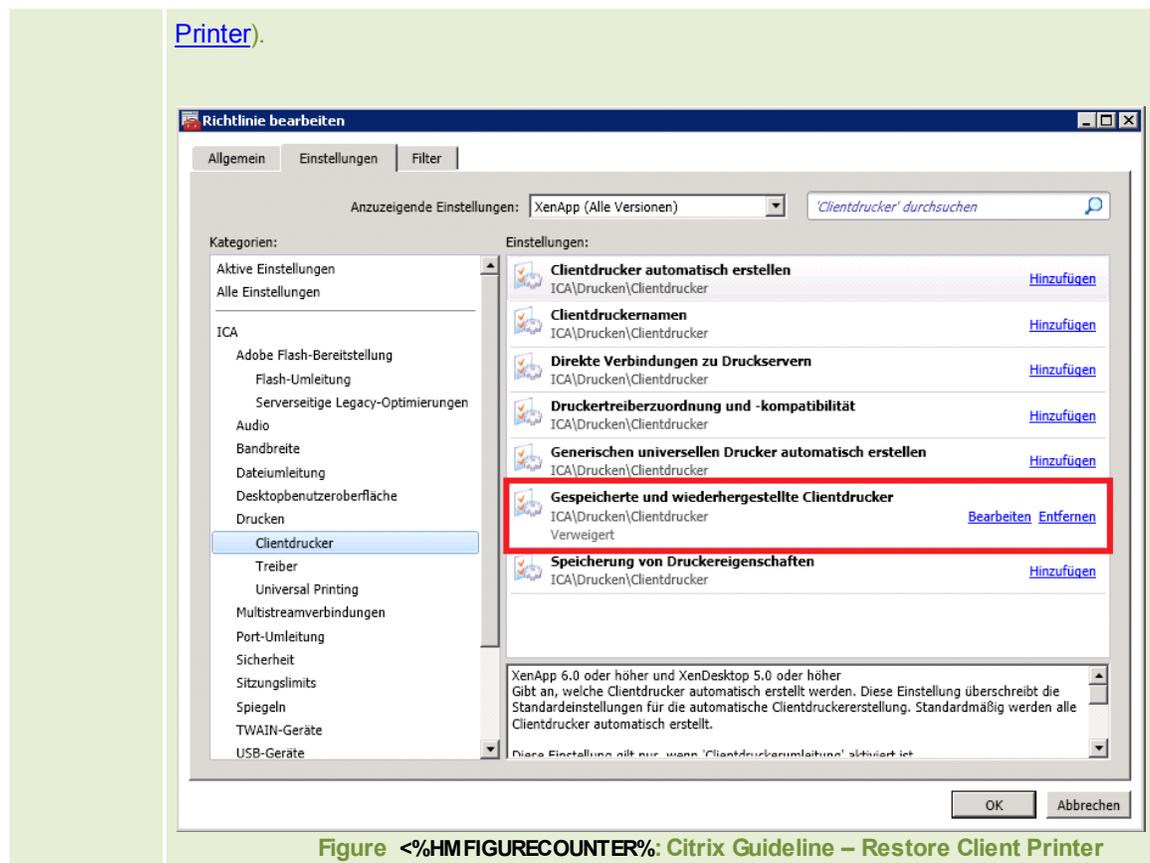


Figure <%HMFIGURECOUNTER%: Citrix Guideline – Restore Client Printer

## 4.7 Maintenance Mode for Printers

steadyPRINT offers a maintenance mode for printers in order to realize e.g. maintenance work. Please proceed as follows:

You can put a certain printer into the maintenance mode either via the mouse context menu or the button "Enable" in the detailed view of the printer (right area), see [figure - steadyPRINT Center - enable maintenance mode for printers](#).

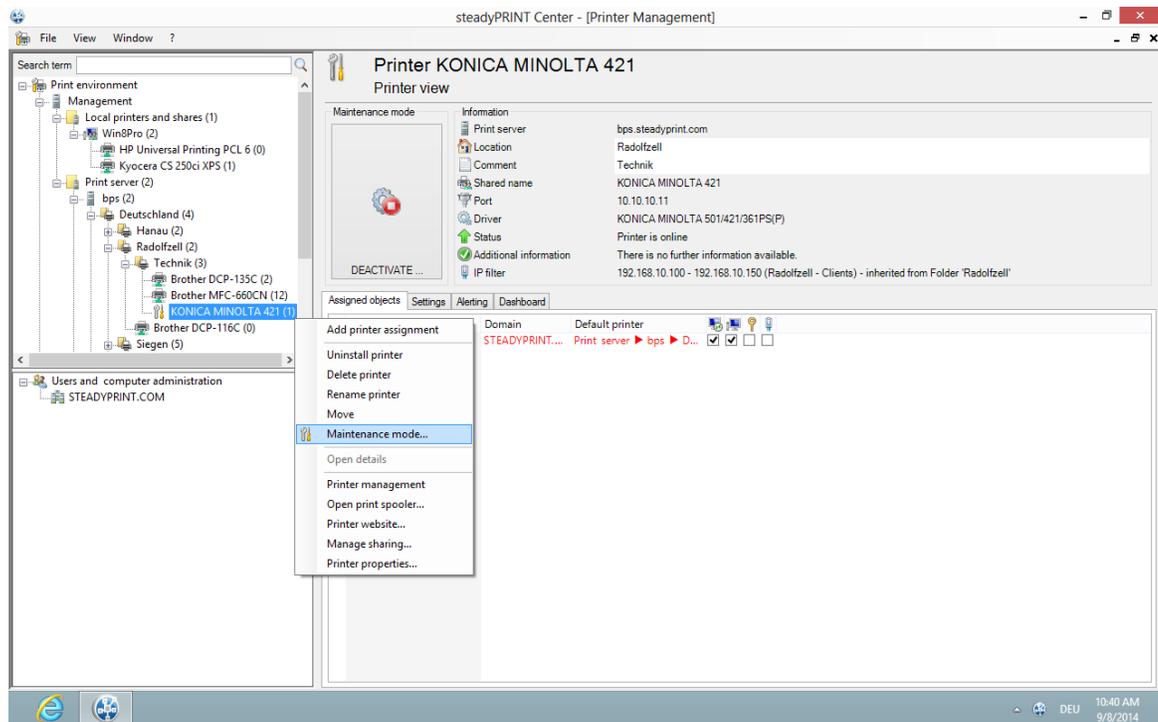


Figure <%HMFIGURECOUNTER%: steadyPRINT Center - enable maintenance mode for printers

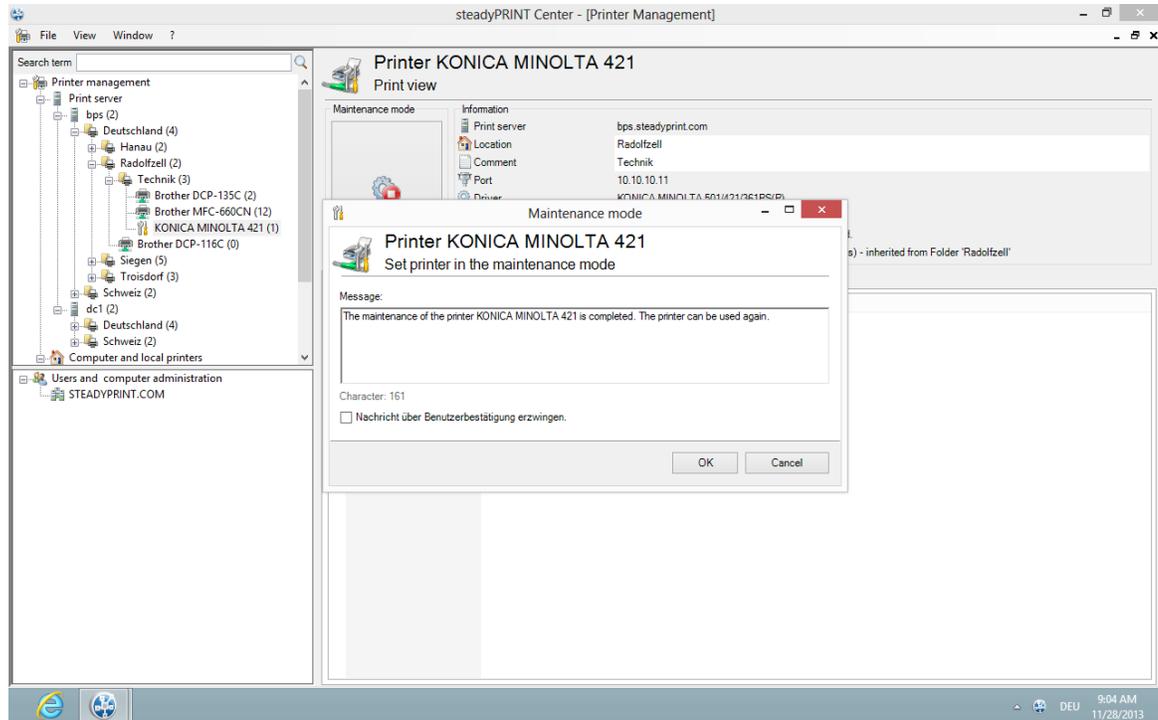


Figure <%HMFIGURECOUNTER%: steadyPRINT Center - enable maintenance mode for printers

In order to disable the maintenance mode for a printer, please proceed in the same way. In the subsequent window "Maintenance Mode" a default message is displayed which can be adjusted for the

maintenance at any time. Moreover, you can optionally adjust whether a user authorization for this message should be enforced.

The printer assignment is removed from all users so that inadvertent printing will no longer be possible. Moreover, the users are informed about the maintenance mode via a pop-up window (see [Figure - steadyPRINT Agent - user notification](#)). This is also displayed in the *steadyPRINT Center* and *steadyPRINT Agent*, also see [Figure - steadyPRINT Agent - printer in maintenance mode](#).

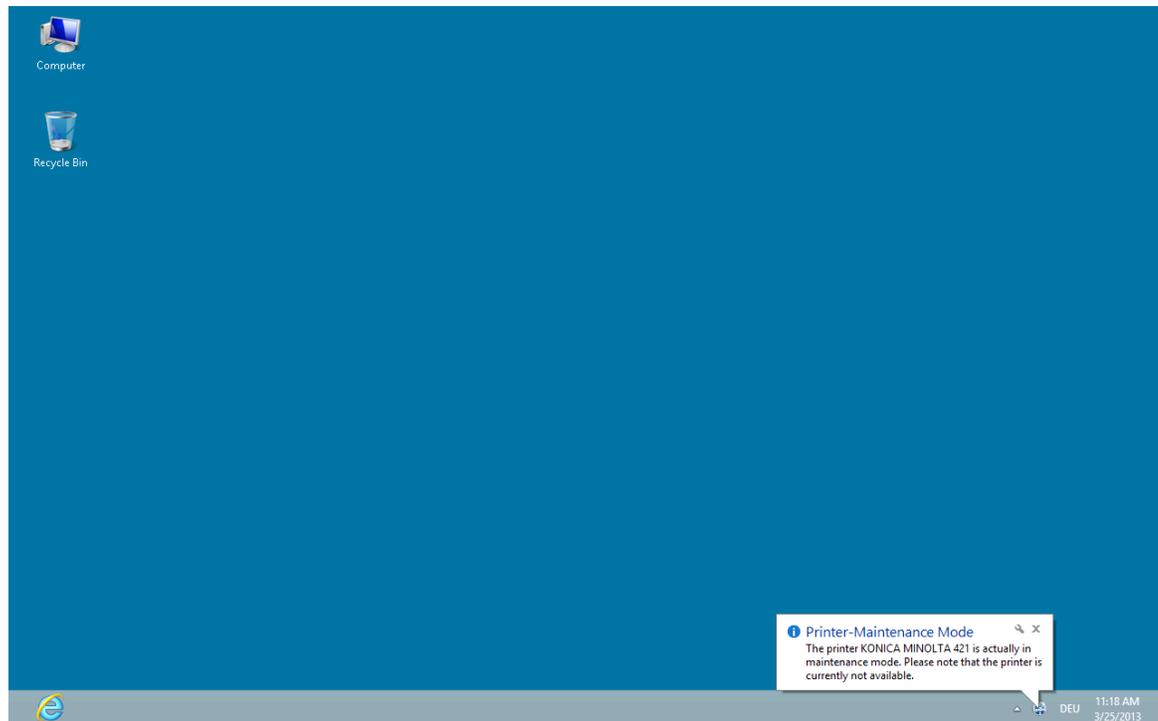


Figure <%HMFIGURECOUNTER%: steadyPRINT Agent - user notification

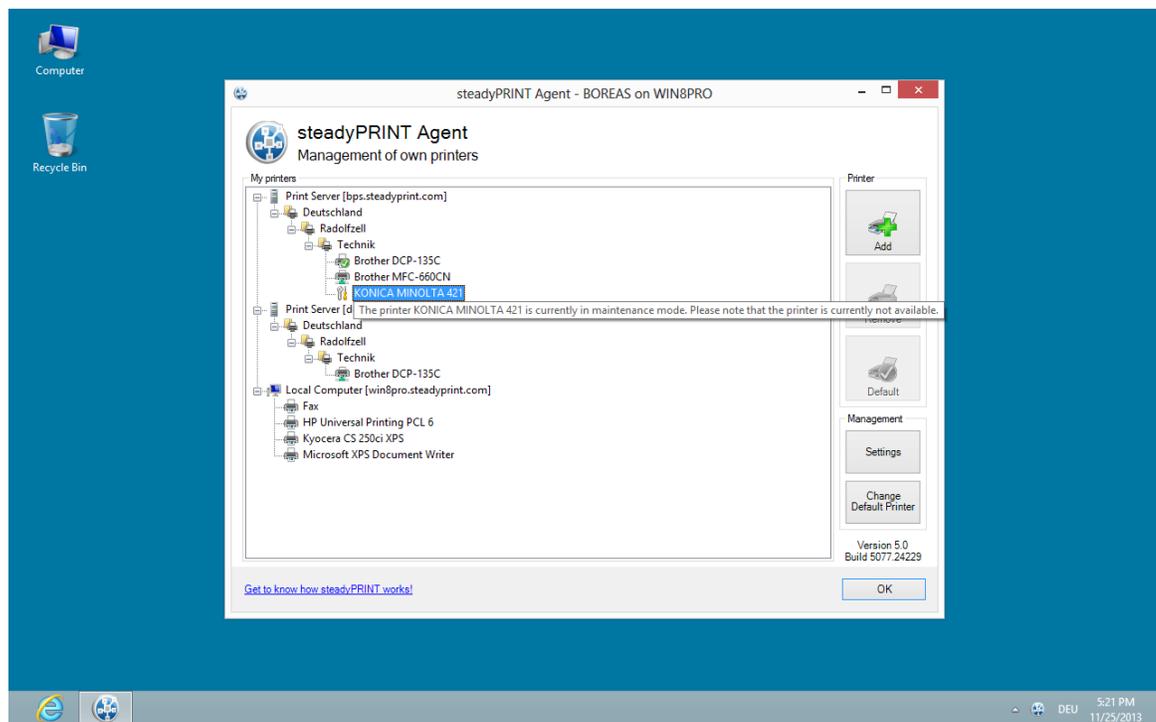


Figure <%HMFIGURECOUNTER%: steadyPRINT Agent - printer in maintenance mode

## 4.8 Synchronization of Printer Information

### General

All printer information can be synchronized in 3 ways:

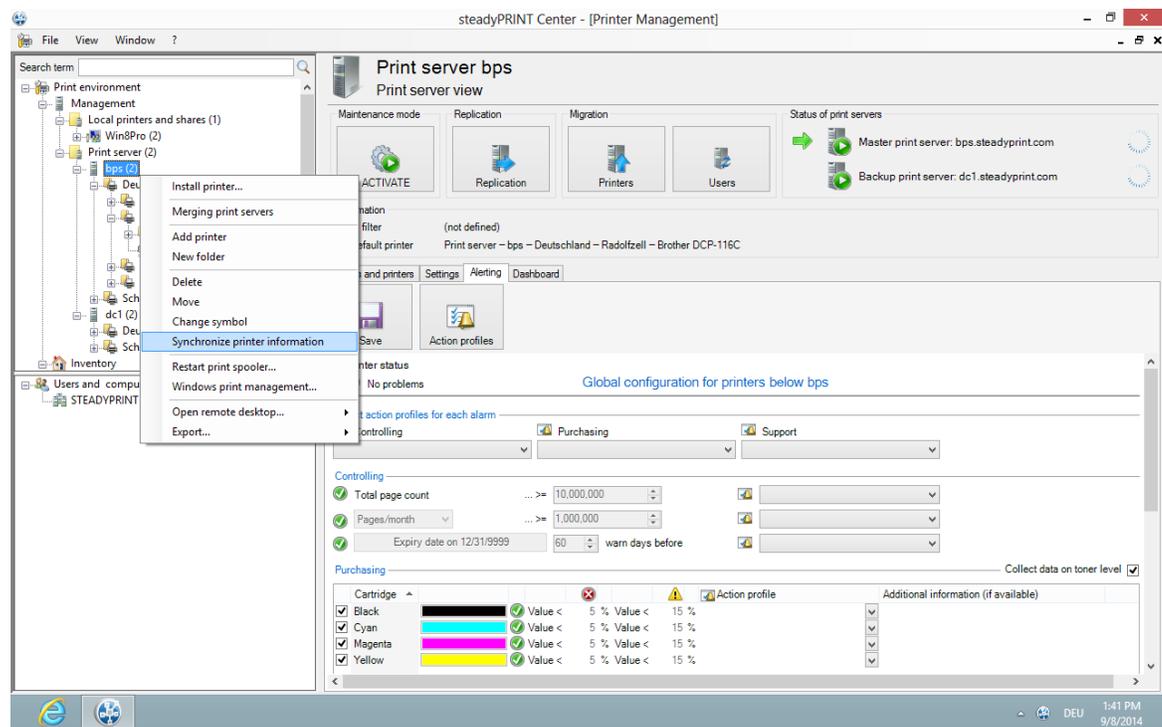


Figure 27: Synchronization of printer information via context menu

1. By the user via the context menu of the printer tree (see figure [Synchronization of printer information via context menu](#), already known from older versions)
2. With an interval set by the user
3. At each start of the **steadyPRINT Center**

When adding a new printer, its latest information is automatically written to the system. In order to be able to see the current printer information even during the printer's life time, an interval for the update of the printer information can be set.

## Setting Options

You will find the options in the settings (see figure [Synchronization of printer information via interval settings](#)) of the **steadyPRINT Center**.

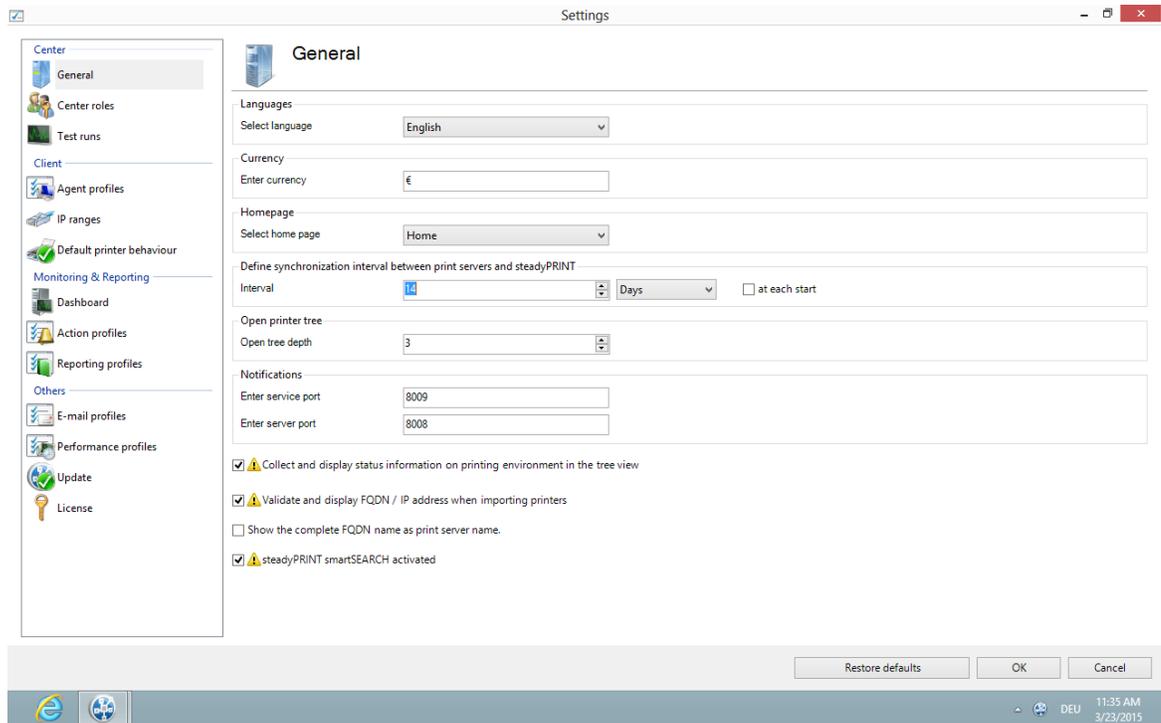


Figure 28: Synchronization of printer information via interval settings

Here, you can have the information updated during the life time of the **steadyPRINT Center** (or even beyond) or uniquely query the latest information from the environment at each start of the **steadyPRINT Centers**.

<b>Important</b>	<b>Malfunction</b>
	<p>In case an error occurs during the query of the information, the user will be informed via a dialog.</p> <p>A possible error would for example be that the print server is not accessible due to firewall settings.</p>

## 4.9 Search and Find

There are many search buttons in the **steadyPRINT Center** with identical functions. You can simply search for terms or perform a wildcard, positive or negative search. With this, objects can be quickly and effectively selected from their Active Directory Structure and printing environment. The search itself is performed within the respective object description and its visible properties (e.g. columns or tooltip-texts) in the **steadyPRINT Center**. Some examples for the view **User and Computer Management** are given below.

Search term	Description
PC	Selects all Active Directory Objects where the term "PC" appears in the object name or in one of the visible properties.
PC*	Selects all Active Directory Objects whose object name or one of the

	visible properties start with "PC".
*PC	Selects all Active Directory Objects whose object name or one of the visible properties end in "PC".
*PC*	Selects all Active Directory Objects where the term "PC" appears in the object name or in one of the visible properties.
!PC	Selects all Active Directory Objects whose object name or one of the visible properties do <u>not</u> contain the term "PC" .
!PC*	Selects all Active Directory Objects whose object name or one of the visible properties do <u>not</u> start with „PC“.
!*PC	Selects all Active Directory Objects whose object name or one of the visible properties do <u>not</u> end in „PC“.

It should be noted that the column **Active Directory Path** is excluded from the search within the view **User and Computer Management** as this would lead to undesirable results e. g. with the terms „cn“, „ou“, „dc“, „=“. [Figure - steadyPRINT - Search for AD objects beginning with "PC"](#): visualizes again the search for Active Directory objects.

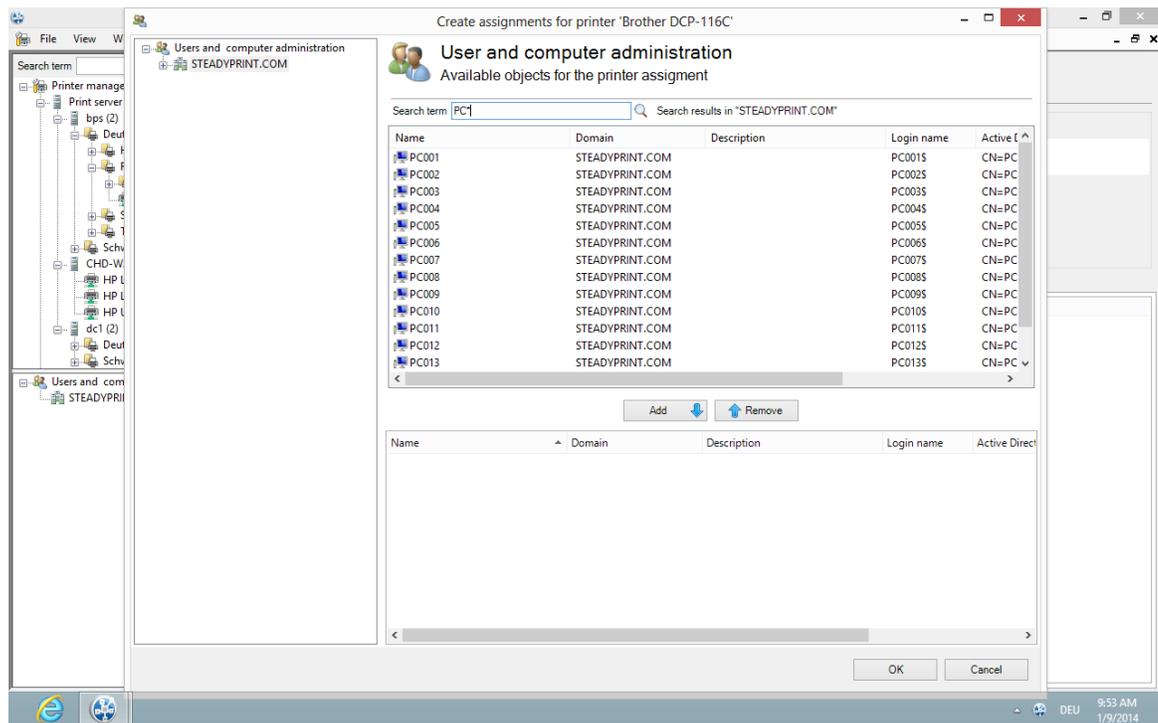


Figure 29: steadyPRINT – Search for AD objects beginning with "PC"

## Search in the Printer Tree

The functionality in the printer tree clearly distinguishes from the search within the Active Directory as it

*always* works with a **"contains"-search**. Here, the search refers to the attributes of the print servers, printers, computers and folders:

- Print server: name, alias, domain
- Folder: name
- Printer: name, comment, location
- Inventoried printers: name
- Inventoried computers: name

### 4.9.1 steadyPRINT Search

As of version 5.2, **steadyPRINT** offers three new possibilities to search for a variety of objects in your environment:

- Active Directory Search
- **steadyPRINT Object Search**
- Online Search

These views can be globally accessed by using the shortcut Shift+F.

#### Active Directory Search

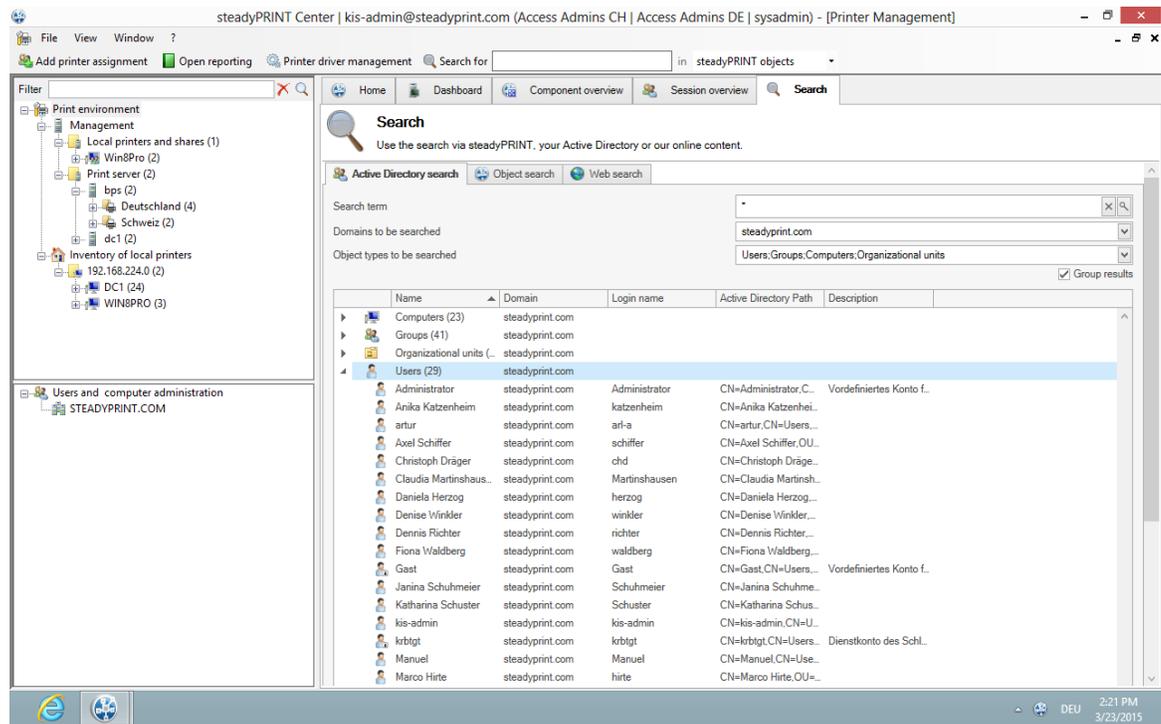


Figure 30: Search in the Active Directory

In the [Active Directory Search](#) (see figure [Search in the Active Directory](#)), you have the possibility to restrict your search by using "\*" in the well-known way.

Additionally, you can now indicate in which known domain and object type the search is to be carried out. This way, the search can easily be adjusted to your needs and memorizes the entries for the next search.

Furthermore, you can choose whether you wish to receive a flat list or (as shown in the screenshot above) a grouping by domain and object type.

### Note *Availability Active Directory Search*

Please note that for the search within the Active Directory, a connection to the same has to be guaranteed.

## steadyPRINT Object Search

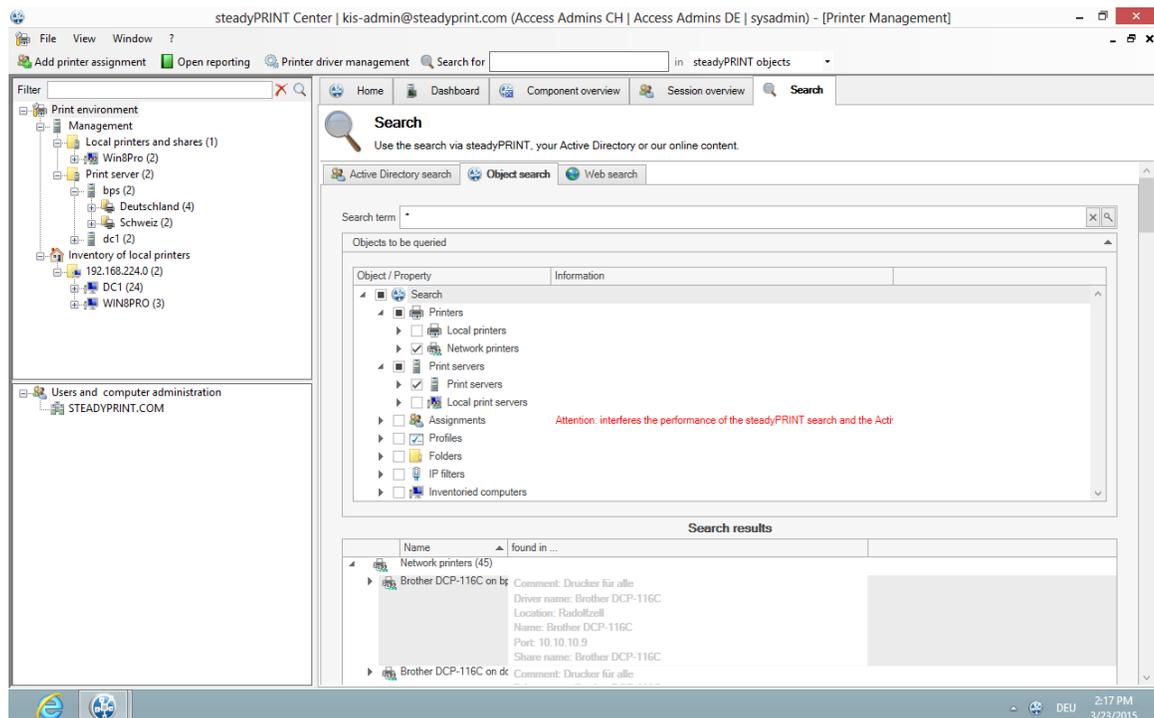


Figure 31: Search in the objects within steadyPRINT

In this view (see figure [Search in the objects within steadyPRINT](#)), as you can see, you have the possibility to restrict the object type to be searched.

The search options are identical to those of the well-known Active Directory Search enabling you to further restrict the search by using "\*" as a prefix or suffix.

The subsequent result view does not only show the direct results but also the properties in which the search term was found (e.g. the driver name of a printer). Moreover, you receive a list of all objects related to this search result.

If your search generates an IP filter, for example, you will also see the performance profiles or print servers related to this filter.

If your search contains a printer, you will immediately see the printer assignments.

## Online Search

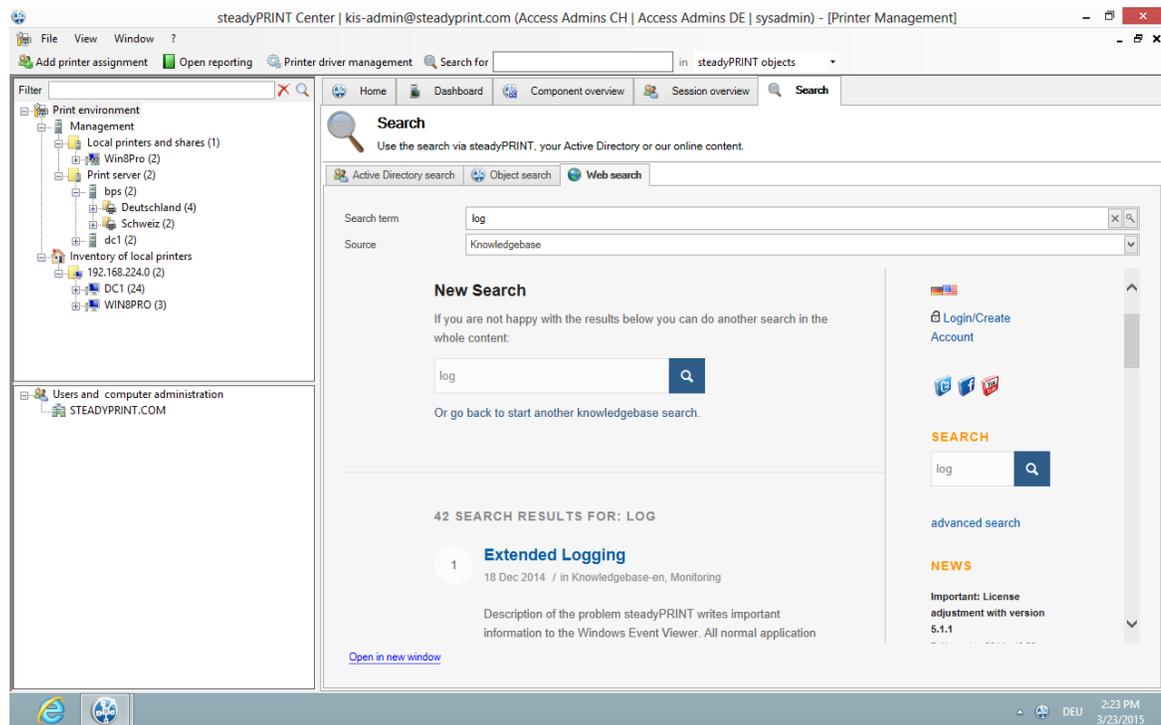


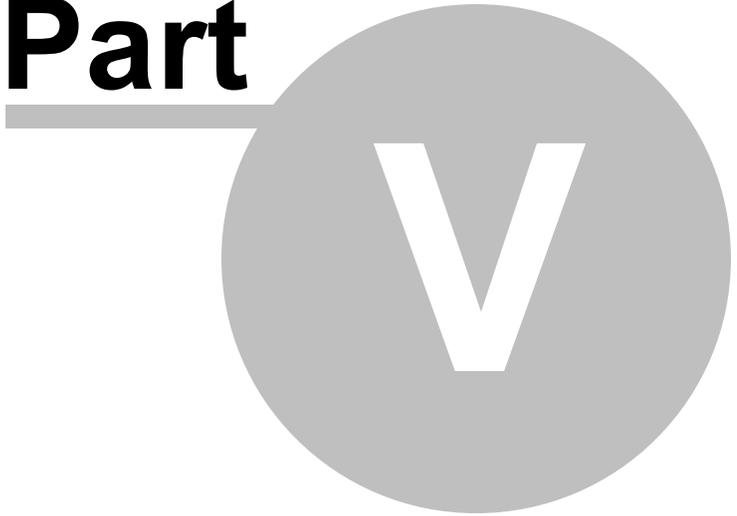
Figure 32: Search within online contents

The Online Search (see figure [Search within online contents](#)) offers the option to extend your search to our Knowledge Base, the Online Manual or the general website.

### Note *Availability Online Contents*

Please note that in order to access our online contents, an available internet connection has to be guaranteed.

**Part**



# 5 Monitoring and Reporting

The chapter [Dashboard and Monitoring](#) shows how to collect information of the printing environment. Chapter [Reporting](#) is finally a matter of evaluating the stored information and providing it in form of reports.

## 5.1 Reporting 5.2

### steadyPRINT Reporting

In **steadyPRINT** version 5.1, the reporting function is introduced for the first time.

In the main menu under [View/Reporting](#), the reporting window can be opened. In the same way, the reporting can also be opened via the home screen. (See figure [steadyPRINT reporting window](#))

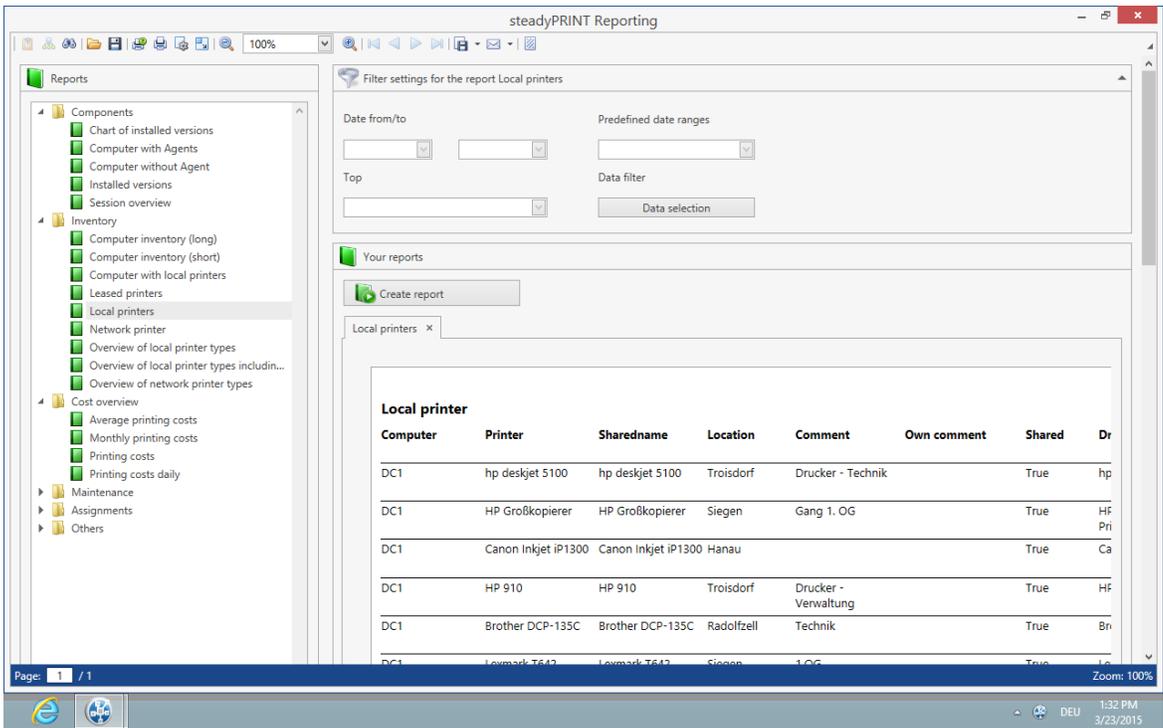


Figure 33: steadyPRINT reporting window

In the tree view "Reports" on the left side, the respective reports can be selected. A report displayed with a lock icon indicates that it is not shared to your license.

The report is generated via the button "Create Report". For each new report a new tab is created.

For some reports, there is the possibility to make filter settings and to restrict the data output.

<b>Important</b>	<b><i>Inventory and Monitoring</i></b>
As a prerequisite, some reports require an enabled inventory and an active	

monitoring so that a complete data output is guaranteed.

By default, the tree view „Reports“ is divided into 6 categories.

The box "Description" describes the currently selected report in detail.

### Existing reports in the categories

- Components:
  - Computer without Agent
  - Computer with Agents
  - Installed versions of the environment
  - Installed versions chart
  - Session overview
- Inventory:
  - Computer with local printers
  - Computer inventory (short)
  - Computer inventory (long)
  - Leased printers
  - Local printers
  - Overview of local printer types
  - Overview of local printer types with computer information
  - Network printers
  - Overview of network printer types
- Cost overview:
  - Printing costs
  - Daily printing costs
  - Monthly printing costs
  - Average printing costs
- Maintenance:
  - Less/most frequented printers
  - Printers with low toner level
  - Printers with paper jam
- Assignments:
  - Local printers by user
  - Printer assignments of folders
- Others:
  - Safety profiles
  - Assignments and roles

Note	<i>Currency</i>
	For reports in the category <a href="#">cost overview</a> , the currency unit can be modified in the <a href="#">settings/Center</a> .

Note	<i>Price per page for the reporting of printing costs</i>
	Prices per page can be stored in the <a href="#">alert area</a> of the respective printer (see <a href="#">Dashboard and Monitoring</a> ). A configuration is also possible on print server and folder level.

## Filter

---

There are four filter options:

- Date from/to
- Predefined date ranges
- Top
- Data filter

The two data filters cannot be used together. In case both are filled in, the filter from/to is used.

The filter [date from/to](#) restricts all data with the specified dates, both fields have to be set.

The filter [predefined date ranges](#) offers several options. It can be selected between current hour, day, week, month and year.

The filter [Top](#) restricts the displayed data, the first 10, 50 or 100 data sets can be displayed or even all.

The [Data filter](#) offers the option to have the data filtered by print server, folder or printer. If a report is selected to which none of these 3 types apply, the corresponding IP filters are used.

Reports with IP filters that are used instead of print servers, folders or printers are: local printers, computers with Agents, local printers by user, computer with local printers, overview of printer types, overview of printer types with computer information.

If the data filter is open, the known tree is displayed. The respective object is selected by double-clicking. (See figure [steadyPRINT Reporting - data filter](#))

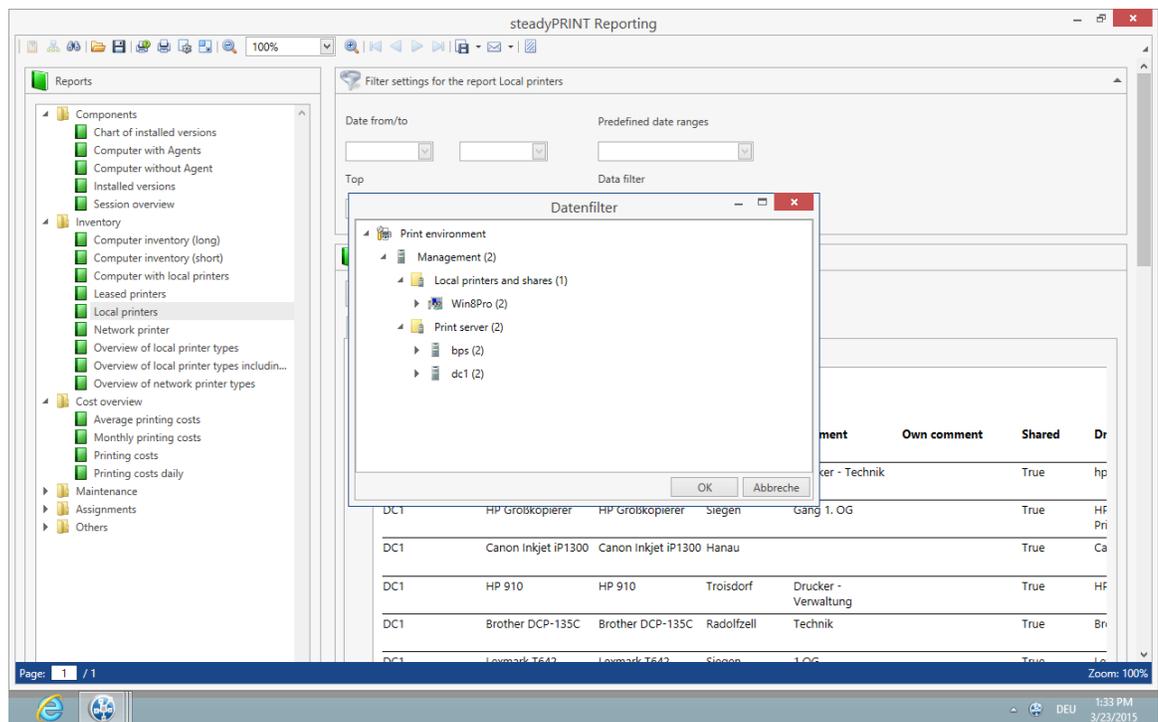


Figure 34: steadyPRINT Reporting - data filter

When the data filter window closes the filter has been taken over. If a data filter is selected, a further button with a red X is displayed. Via this button, the data filter can be reset. (See figure [steadyPRINT Reporting - data filter set](#))

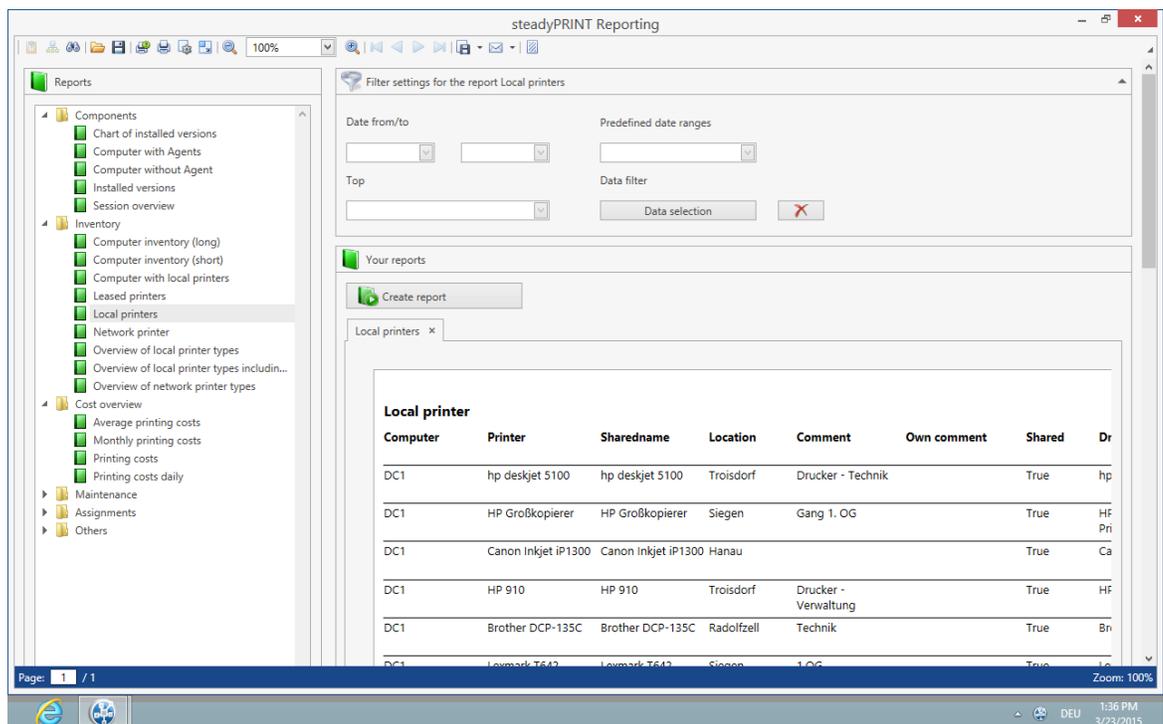


Figure 35: steadyPRINT Reporting - data filter set

### Export

There is the possibility to save the report as a file in different formats or to send it as an e-mail attachment.

In order to save the report as a file, the required file type can be selected in the menu under [export document](#). Another window opens and the settings can be made. By clicking OK, the Save dialog opens.

In order to send the report as an e-mail attachment, select the required file type under [send as e-mail](#). Another window opens where the settings can be made. By clicking OK, the Save dialog opens. After saving a new e-mail opens provided that a default Mail Client is installed.

### Layout

There are two layout files in the Center's program folder which can be exchanged according to the customers requirements. Template.repx for documents in panel format and TemplateLandscape.repx for documents in landscape format.

### Reporting in the Tree View

It is now possible to call the reporting directly from the tree in the [steadyPRINT Center](#). In doing so, the currently selected level is taken over as a data filter and the reporting window is opened. (See figure [steadyPRINT Reporting in tree view](#))

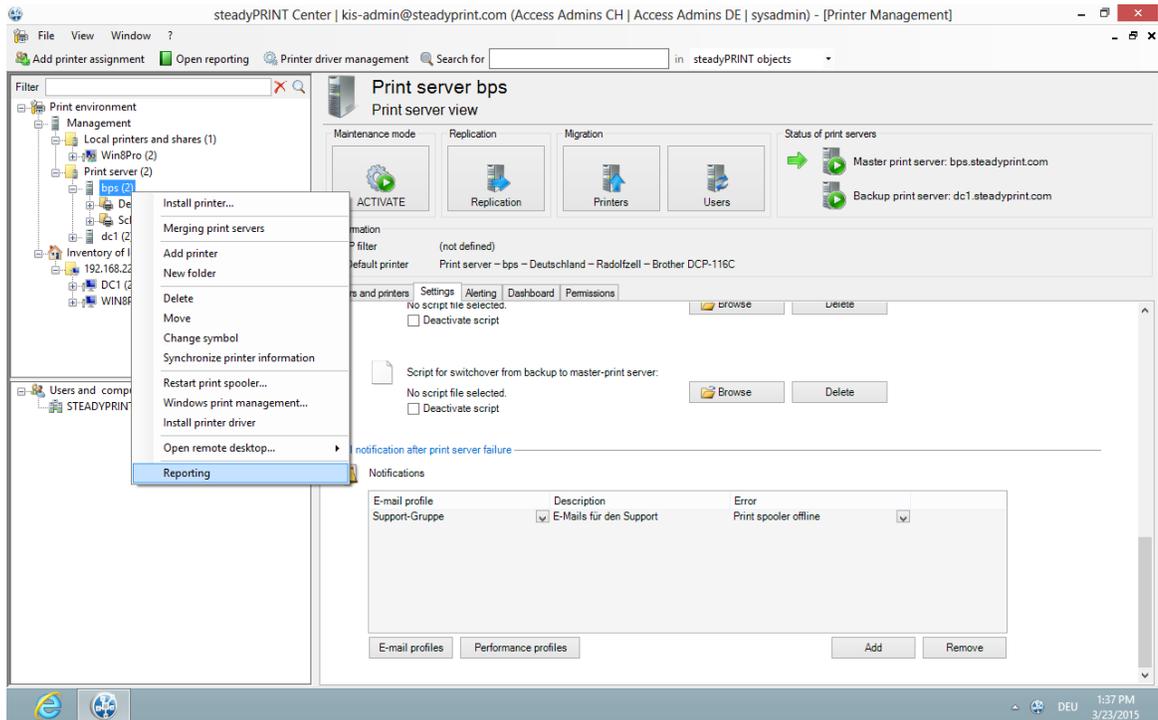


Figure 36: steadyPRINT Reporting in tree view

## 5.2 Dashboard and Monitoring

The *Dashboard and Monitoring* function makes it possible to capture - with a flat view - the state of a printing environment. As a precondition for this function, the installation of the *steadyPRINT Server*, *steadyPRINT Webserver* is required.

### Precondition steadyPRINT Server

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Make sure that the *steadyPRINT Server Component* has been properly installed. For more detailed information, please refer to chapter [Installing the Program Components](#).

### Precondition steadyPRINT Web Server

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Make sure that the *steadyPRINT Web Server* has been properly installed. For more detailed information, please refer to chapter [Installation Web Server](#).

---

<b>Important</b>	<b>Synchronize IP Addresses</b>
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<p>In order to query the printers via <i>SNMP</i>, a valid IP address or the printer's DNS name is necessary. To do so, the <i>steadyPRINT Center</i>, when adding a printer, stores the necessary information in the database. For already existing printers, it is possible to synchronize the data subsequently or for update purposes via the respective print server node in the context menu <i>Synchronize Printer Information</i>. (also see chapter <a href="#">Synchronization of Printer Information</a>).</p>
---

### Integration of the steadyPRINT Dashboard into the steadyPRINT Center

---

In order to integrate the *Dashboard* into the *steadyPRINT Center*, select *settings* under *file* and open the section *Dashboard and Monitoring*. Then enter the server name or its IP address as well as the used port in the space provided. The *steadyPRINT Dashboard* should now be available in the respective views (*printer administration*, *print server*, *folders and printers*). The following [figure - steadyPRINT Center - indication of dashboard server IP address](#) shows an example for entering the necessary information.

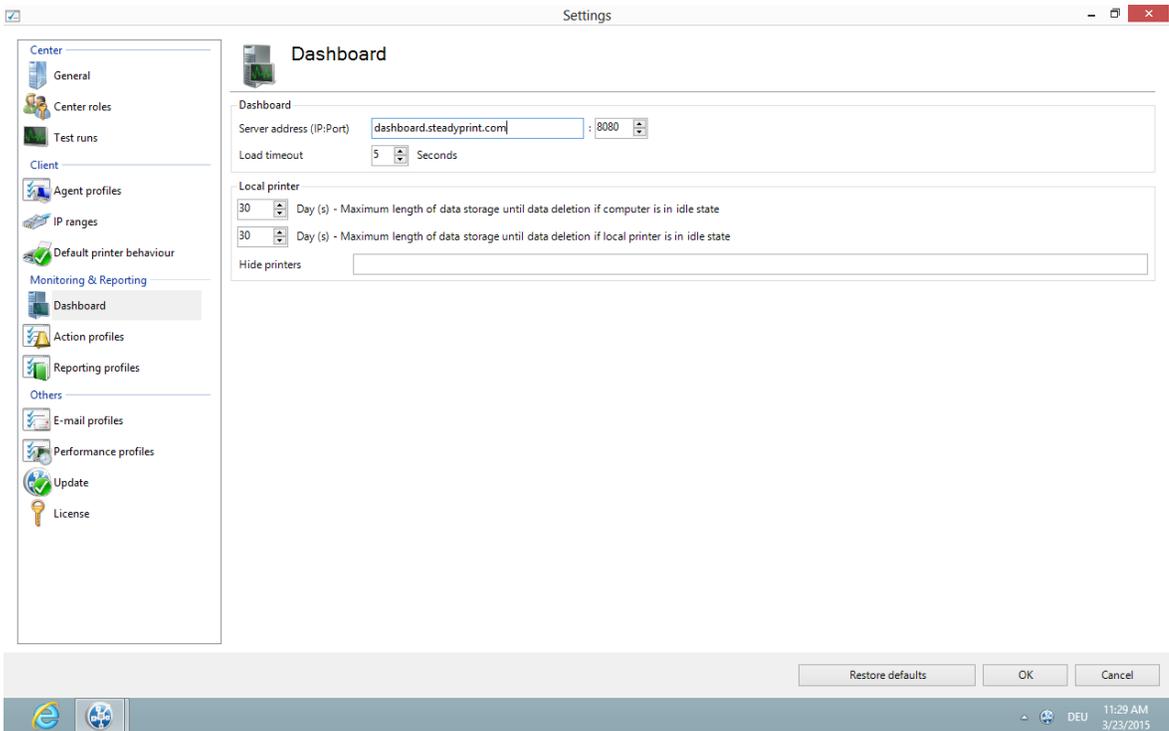


Figure 37: steadyPRINT Center - indication of dashboard server IP address

### Configuration for Collecting Printer Information

The component *steadyPRINT Server* is responsible for monitoring or rather collecting and storing the printer status in the database. The configuration of a collection can be fine granular each per printer and function. In the following, you will see an exemplary [figure - steadyPRINT Center - configuration for the collection of status information](#) regarding the configuration for collecting printer information. This can take place on print server-, folder- and/or printer basis. A configuration which has already been performed is respectively given to all underlying printers thus minimizing the administrative effort.

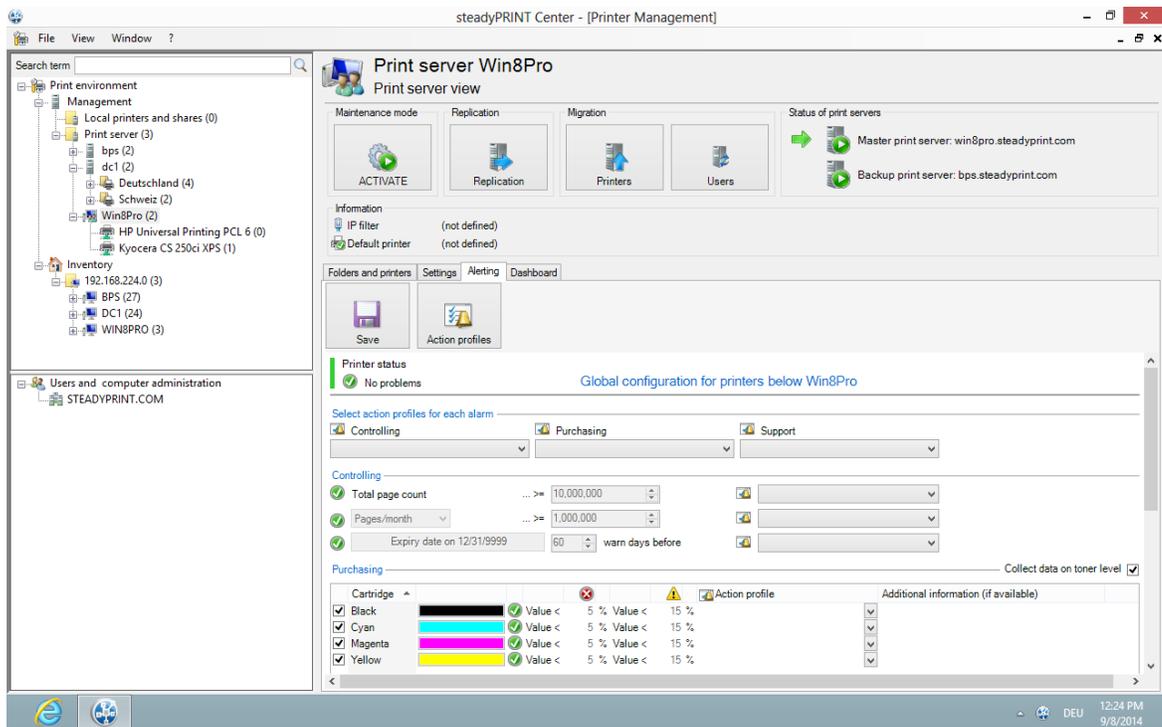


Figure 38: steadyPRINT Center - configuration for the collection of status information

For the collection of information and the warning of events in the respective section (controlling, purchasing and support) of a printer, so-called [Action Profiles](#) are necessary. Linking the separate query values can be done individually or for the whole section. The following table describes the possible query values.

Query Value	Section	Description
Total count	Controlling	Enter the total count threshold of the printer. When the specified threshold is reached or exceeded, an event and/or an alert is triggered.
Pages/[Unit]	Controlling	Enter the threshold for the average of printed pages. When the threshold is reached or exceeded, an event and/or alert is triggered. You can configure the average pages per day, week, month or year.  Tip: Please note that the monitoring has to be active over a longer period in order to determine an exact average value. The <a href="#">Dashboard</a> itself indicates this value only if at least two different counts are available.
Expiry date on ...	Controlling	Please indicate a date on which the leasing contract for the printer expires. In addition, it should be registered how many days in advance an event is triggered. In case the e-mail notification function is enabled, you will also receive an e-mail from the <a href="#">steadyPRINT Server</a> .
Toner levels	Purchasing	Enter threshold values for fill levels (in per cent) at which a warning or an error shall be triggered for the respective cartridge. If the given threshold is not reached, an event and/or alert is triggered.

		Hint: Some devices do not indicate an exact fill level so that a precise display and analysis is not possible. In such cases, additional information will be provided next to the particular toner cartridges
<b>Status (Printer status)</b>	Support	<p>Please indicate whether an event and/or an alert is triggered for the respective printer status in case it deviates from its normal condition.</p> <p><b>steadyPRINT</b> currently supports the query of the following status:</p> <ul style="list-style-type: none"> <li>• Output tray nearly full,</li> <li>• Output tray missing,</li> <li>• Output tray full,</li> <li>• Operator intervention required,</li> <li>• Printer offline,</li> <li>• Cartridge missing,</li> <li>• No toner,</li> <li>• Paper empty,</li> <li>• Add paper to continue,</li> <li>• Paper tray missing,</li> <li>• Paper jam / Print job jammed,</li> <li>• Door open,</li> <li>• Maintenance due,</li> <li>• Low paper,</li> <li>• Low toner.</li> </ul>

**Important**

**Monitoring Values**

The collection of information and display of events for a printer only happens if the respective value has been linked with an action profile. Otherwise, no up-to-date information and events for the particular value related to the corresponding device are shown in the **steadyPRINT Dashboard**.

**Configuration of Alerts**

In order to create an alert via a query value in **steadyPRINT**, it is necessary to link the same with an **action profile**, respectively. Please indicate whether an event related to the value shall be stored in the database and/or an e-mail shall be sent.

**Important**

**Storing Events**

The **steadyPRINT Center** only shows events for printers which had been stored in the database. Therefore, please make sure that the checkmark for "store events in the database" is activated in order to have them displayed also in the **steadyPRINT Dashboard**.

**Display of Information**

The **Dashboard** is shown in a tree view analog to the **steadyPRINT Center**. Here, you can navigate via print servers as well as folders and printers. On each particular level, the **Dashboard** displays information, errors and alerts as well as different consumables related to the printing environment. Moreover, a targeted filtering by status is possible. All printers with an error or the status **Low toner** could for example be displayed.

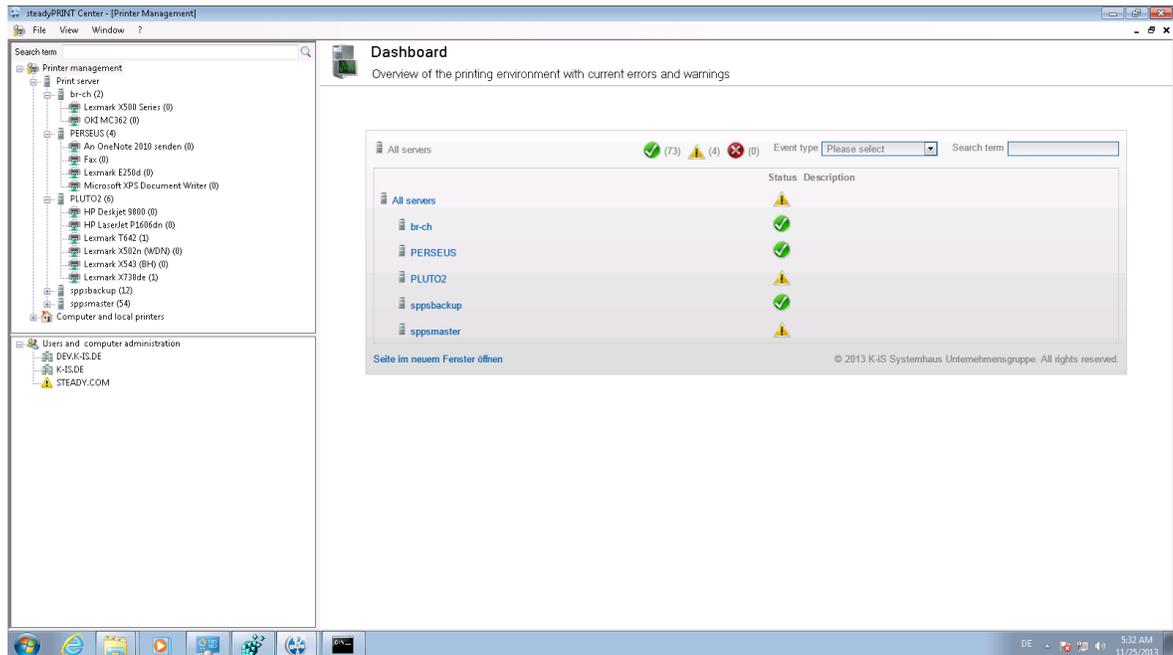


Figure 39: steadyPRINT Center - dashboard overview

The upper bar offers a filtering by the conditions **OK**, **Warning** and **Error** as well as different **event types** (e.g. z.B toner empty or paper jam). Moreover, it is possible to search for printers and the respective comment and location arrays via the **search box** on the right-hand side.

The **detailed view** of a printer provides you with general and extended information including location, comment, IP address, toner level, counts and the leasing expiry date. All events related to the device and triggered due to the configuration are listed in the lower part of the detail view which is divided in active and past events and offers a quick overview of errors and warnings for the respective printer.

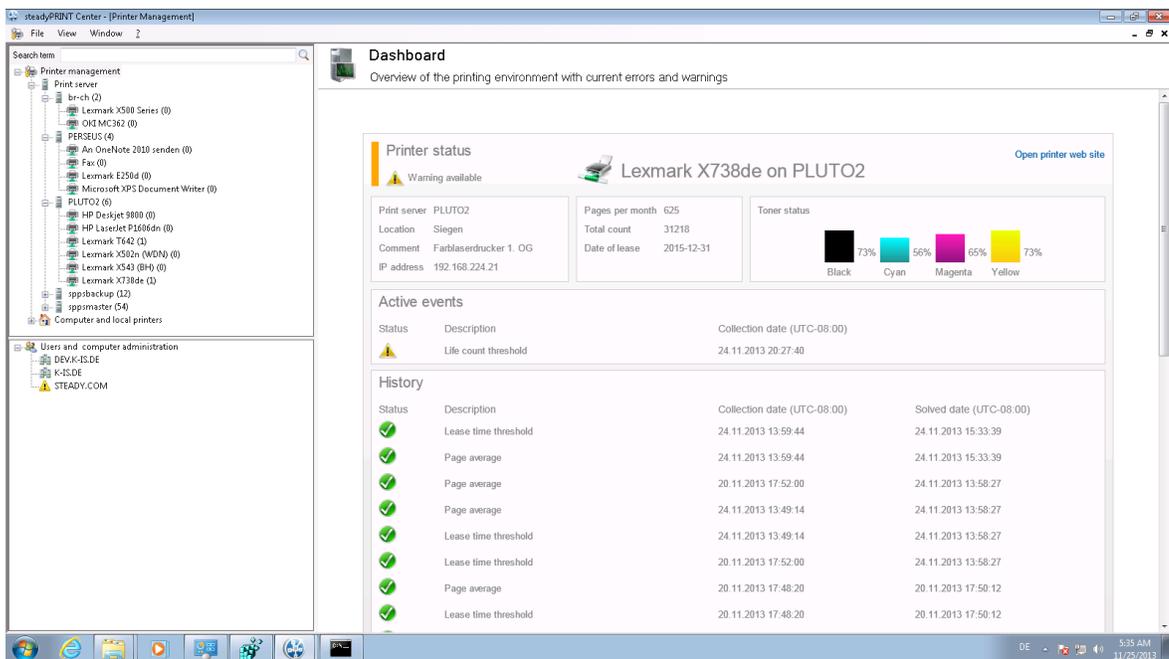


Figure 40: steadyPRINT Center - dashboard detailed view

**Part**



## 6 steadyPRINT Reliability

**steadyPRINT** offers failure security for your printing environment. This means that, should a print server failure occur, a backup system can take over for the duration of the failure. The user-side printer connections run over the second system up to the time that the responsible administrator puts the primary print server (referred to as the Master Print Server below) back into operation.

### 6.1 The Backup Print Server

The backup print server constitutes an exact copy of the first print server for **steadyPRINT**. With the help of the **steadyPRINT Center**, you port the existing network printers from the master to the backup print server. It is possible to consign a backup print server for every master print server in the **steadyPRINT Center**.

#### Specifying a New Backup Print Server

In the settings section of the respective print server (**Settings** tab) you can specify the desired server. With the takeover of the backup print server, the registered server is saved in the database. The **steadyPRINT Center** checks if the **steadyPRINT** monitoring service is installed and active on this server. A comparison of the installed network printers also takes place. In the event that a network printer is missing on the backup server, a status window points out this circumstance. In this case, it is absolutely necessary to commence with a manual printer replication of the servers in the **steadyPRINT Center**. Otherwise, smooth running operations of the backup print server with all printer connections cannot be guaranteed.

#### Note *Use of Migration Print Server*

If the specified backup print server is not exclusively used for reliability purposes, negate the emerging dialog when setting the print server in the setup **Backup-/Migration Print Server**. This way **steadyPRINT** skips the validation of the backup print server and takes over the specified server for all migration work to be carried out.

#### Note *Activating RPC*

For replicating the printers to the backup print server, it is necessary that the **Allow Print Spooler to accept Client Connections** policy permits access.

The following entry in the Windows Registry should have the 1:

```
GPO: Allow Print Spooler to accept client connections  
Key: HKLM\Software\Policies\Microsoft\Windows NT\Printers  
Value: RegisterSpoolerRemoteRpcEndPoint (REG_DWORD)
```

**Access should nevertheless be allowed by default, whereby a subsequent activation will not be necessary.**

#### Specifying Script Files

Under the print server settings ([Settings](#) tab), it is possible for you to deposit script files for the installed print servers in the [SteadyPRINT Center](#), which are configurable for a print server swap from master to backup print server or vice versa (see [Figure - steadyPRINT Center - specifying script files](#)).

When specifying a script file for a print server, the set script is saved in the [steadyPRINT Database](#). As long as the script is not disabled in the [steadyPRINT Center](#), it will be called up from the [steadyPRINT Database](#) and executed one time during the next print server change by the [steadyPRINT Service](#) on the respective system – this can also be a terminal server or workstation.

Should interaction between the script and the Windows user interface ([Windows GUI](#)) be necessary, an adjustment to the [steadyPRINT Service](#) on the respective system will be needed to ensure the script is properly executed. To this end, please see the reference at the end of the text passage.

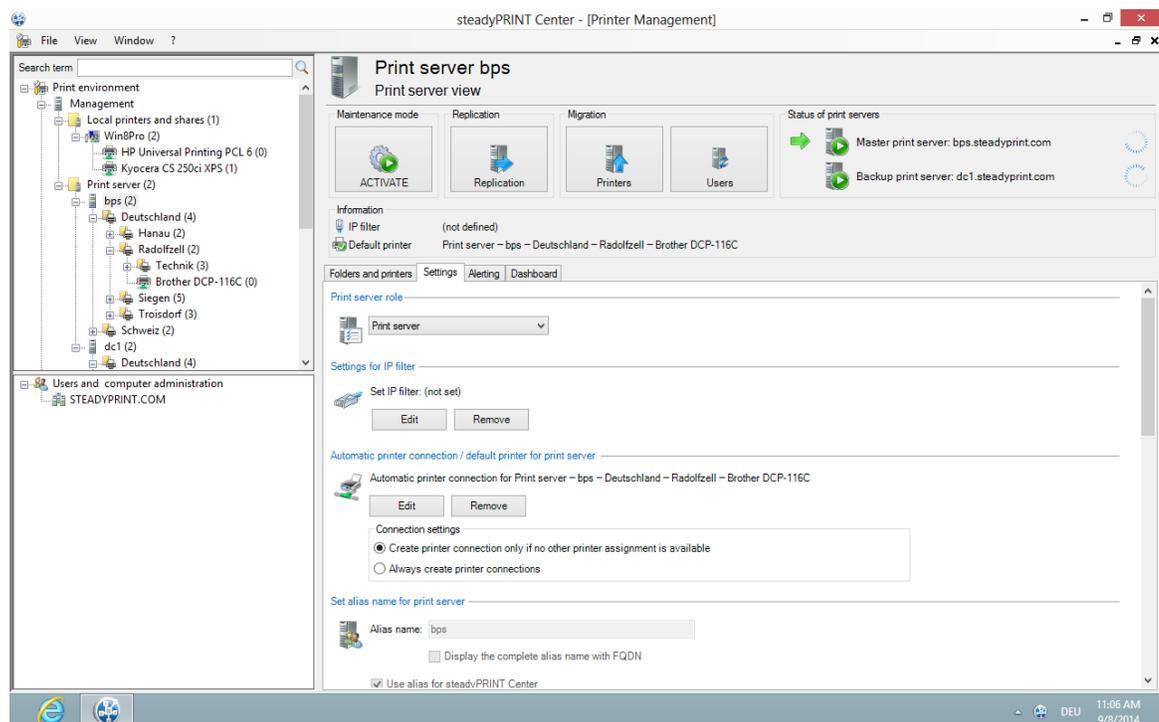


Figure 41: steadyPRINT Center – specifying script files

### Note **Adjusting the steadyPRINT Service for Interaction with the Windows GUI**

For data exchange between service and desktop during script execution, it is necessary that the service be configured for access.

The following entry under the service properties area of the [steadyPRINT Service](#) needs to be enabled:

Allow Data Exchange between Service and Desktop.

**Access is not allowed by default, thus making a subsequent activation necessary.**

## E-mail Notification

This option allows you to add e-mail addresses which will be used for notification purposes in the event of a print server failure.

## Print Server Replication

Change to [Replicating a Print Server](#) in the detail view using the [Printer Replication](#) tab (see [Figure - steadyPRINT Center - printer replication: steadyPRINT Center – Print Server Repliation](#)). There you will have an overview of all master and backup print server printers as well as the necessary replications.

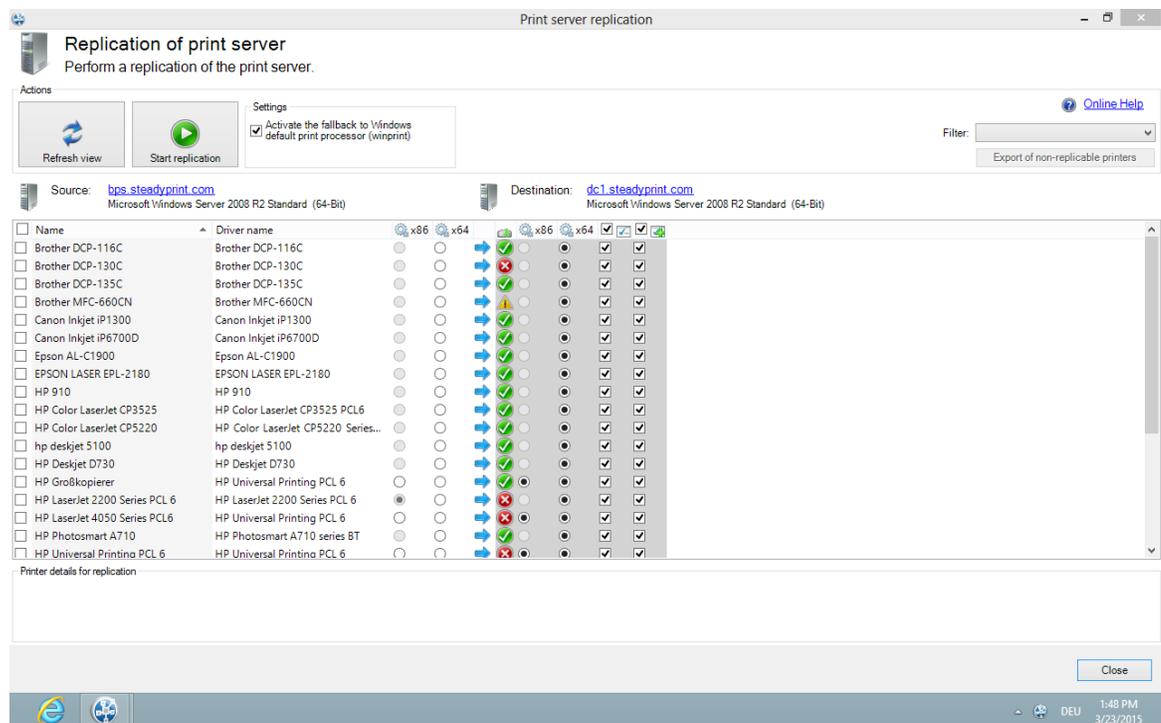


Figure 42: steadyPRINT Center – printer replication

The various network printers seen in the [steadyPRINT Center](#) view are marked with different colors. Red means that the printer on the target system is not available. Green, on the other hand, represents a printer that has already been installed on the target system.

**Note**    [See details](#)

Highlight an entry in the list to have more information displayed about a printer in the lower area. You can also hover the mouse pointer above the respective control element to get additional information.

To ensure reliability with **steadyPRINT**, print server replication is absolutely necessary and must be carried out successfully. A complete replication is distinguishable by the circumstance that all printers have been provided with a green symbol. Keep reading under [Print Server Replication and Migration](#) to get more detailed information about the respective control elements used in the [Replication View](#).

## 6.2 Scenario: Print Server Failure

Should **steadyPRINT** determine the failure of the master print server, a specific series of actions will then be carried out in order to swap the printer connections to the backup print server.

### Initial Situation

Your master print server (primary print server) has a **steadyPRINT** backup print server (secondary print server) configured. The printer replication has already been carried out and the **steadyPRINT Server** service for monitoring the primary print server is running on the secondary print server. In addition, the printer connections were created for the user sessions which are currently running over the primary print server. The following [figure - Initial situation before printer failure](#) displays the scenario as described thus far.

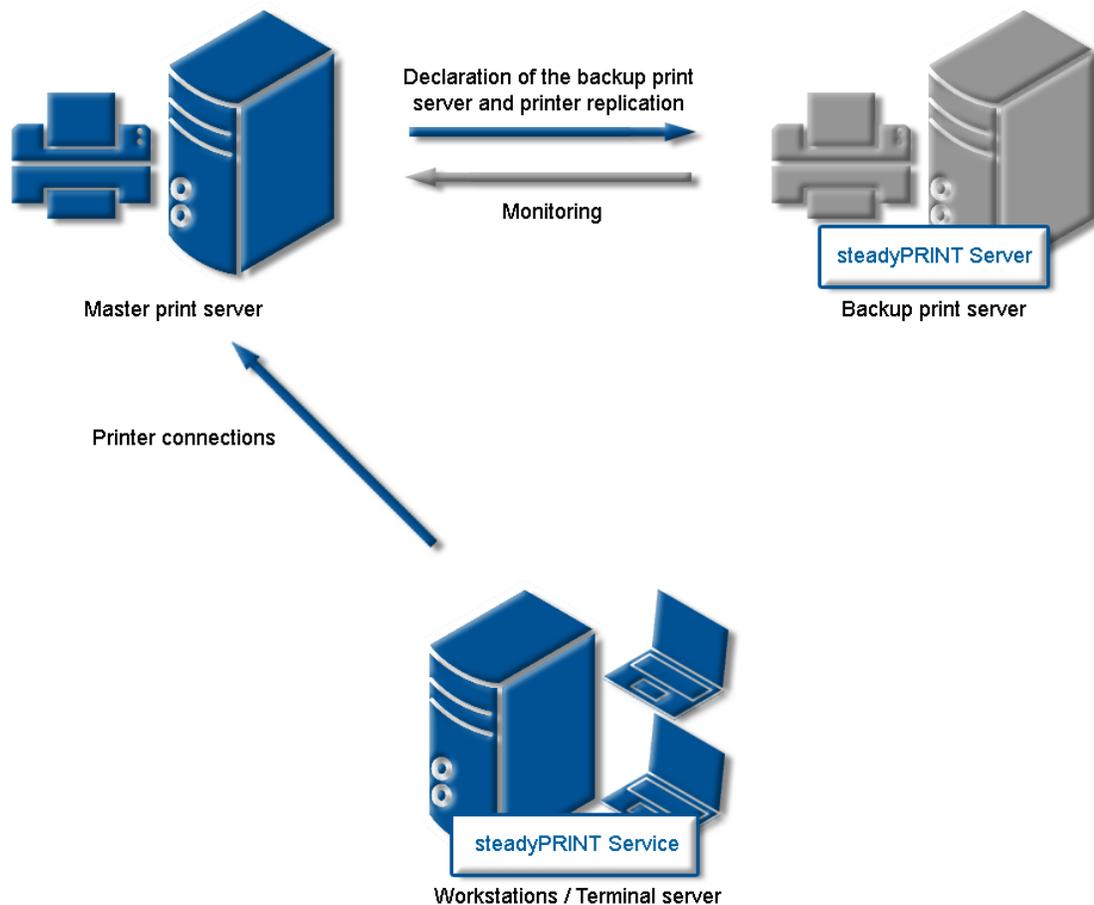


Figure 43: Initial situation before printer failure

## Order of Events

As soon as the backup print server's monitoring service determines a failure of the master print server, an immediate swap of the printer connections is triggered. The **steadyPRINT Server** service carries out the necessary updates in the data storage of the SQL server. Subsequently, the notification service **steadyPRINT Service** informs the terminal servers and workstations of the print server failure.

The **steadyPRINT Service** has its own communication channels within the running sessions. A call for a swap of the printer connections is sent over these. The current printer settings in the network remain unchanged in the process. [Figure - After the failure of the master print server](#) shows the course of the events leading to a swap of the printer connections as just described.

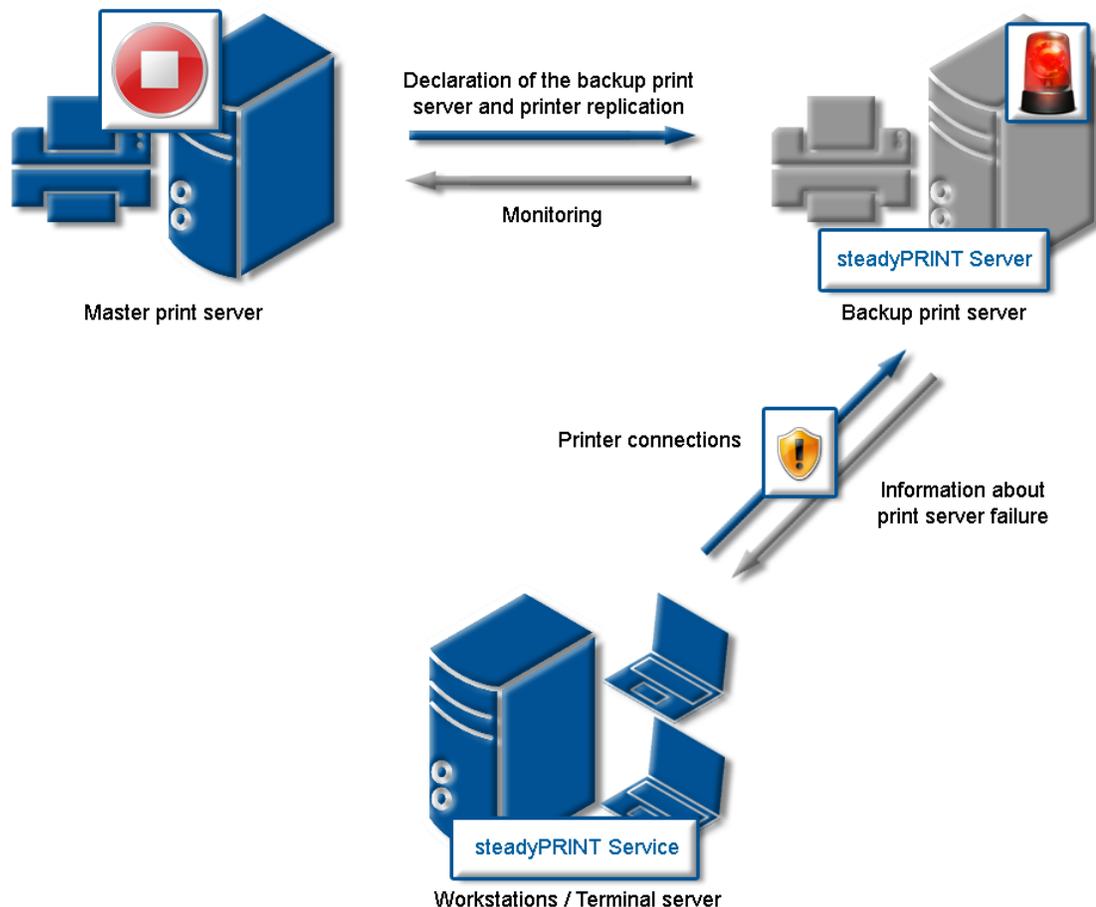


Figure 44: After the failure of the master print server

## Procedure without Database Connection

As of version 5.2, an active database is no longer required for ensuring the print server failover (change from master- to backup print server). In case of a failure, the **steadyPRINT Server** service sends a push notification with the new server configuration to all sessions in order to inform the Clients. In case they identify printer connections which are affected by the failure, a changeover to the backup print server is performed.

### Important *Precondition for Failover without Database*

A precondition is that the database could be contacted at least once by the **steadyPRINT Server** Service in order to determine the required information for a failover.

In case the database can be accessed again after the failover, the **steadyPRINT Server** includes the current failover status into the database. This way, all **steadyPRINT** components are notified of the possible change of configuration.

## 6.3 Activating the Master or Backup Print Server

To enable the master or backup print server you must change to the detailed view of the corresponding print server. Using either the **ENABLE Service Mode** button (enables the backup) or **DISABLE Service Mode** button (enables the master) enables the respective server ([Figure - Activating the master print server](#)).

You can use this function after a system failure or for server maintenance purposes. If the failure of your primary print server (master print server) has been redressed in your network and the primary print server is again operational, the swap of the printer connections can take place during operation.

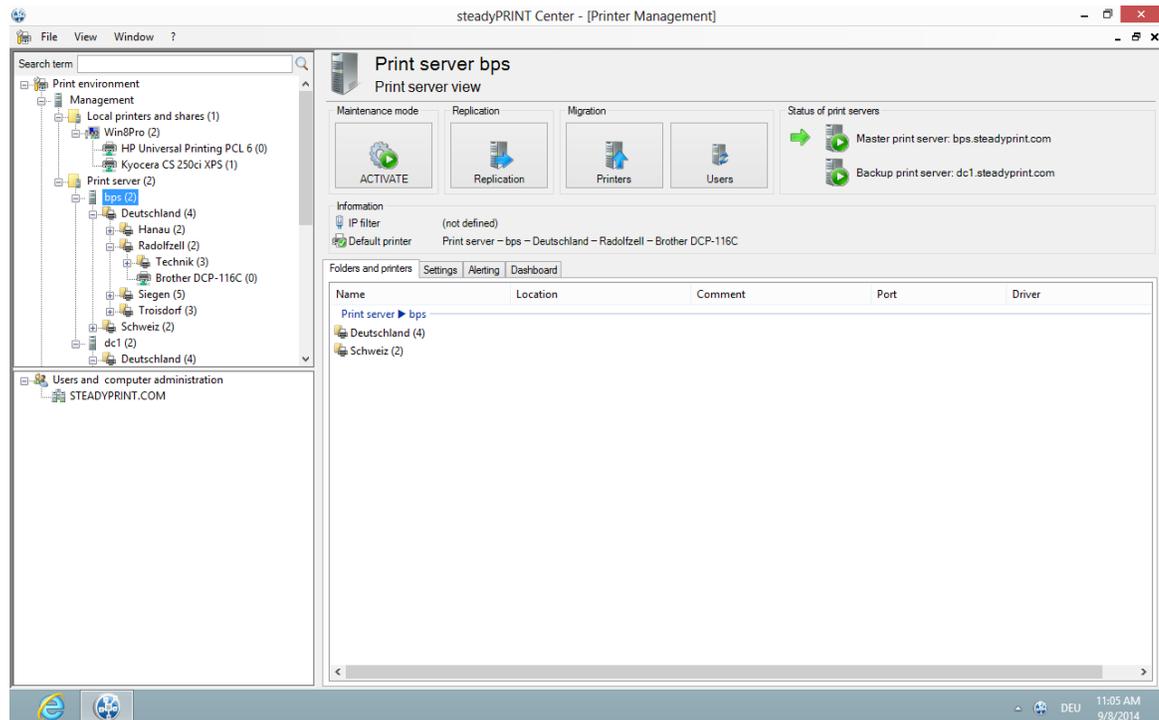


Figure 45: steadyPRINT Center - Activating the master print server

## 6.4 Functional Testing of Print Server

### General

During the runtime of a print server or its failover partner, a variety of possible errors can occur. **steadyPRINT** therefore checks the most frequent ones in an adjustable interval.

This includes the following errors:

Check	Master print server	Backup print server
Accessibility via Ping	X	X
Accessibility of print spooler (Compare <a href="#">Warming up time of printer spooler</a> )	X <sup>1</sup>	X <sup>1</sup>
Accessibility of <b>steadyPRINT</b> Service		X
Value below minimum hard disk space (default value 500 MB) <sup>2</sup>	X	X
Value below minimum free working memory (default value 256 MB) <sup>2</sup>	X	X

<sup>1</sup> Compare [Warming up time of print spooler](#)

<sup>2</sup> These values (in megabyte) can be changed via entries to the database.

## Setting options

For this test, the following 8 parameters can be modified via the [Performance Profiles](#). (See figure [Setting for functional testing of print server](#))

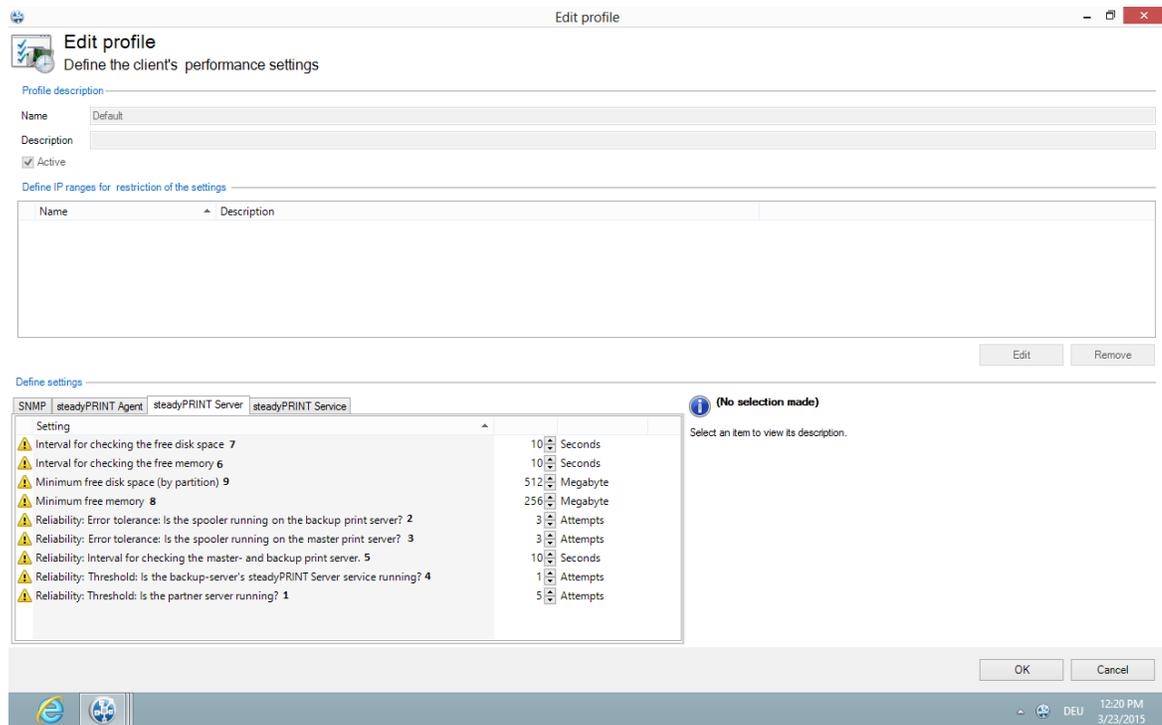


Figure 46: Setting for functional testing of print server

- 1 Interval in seconds in which the print servers check the free hard disk space of the partner server.
- 2 Interval in seconds in which the print servers check the free working memory of the partner server.
- 3 Minimum free hard disk space. In case a lower value is identified, an error message will be sent.
- 4 Minimum free working memory. In case a lower value is identified, an error message will be sent.
- 5 Number of trials until the spooler of the backup print server is recognized as offline.
- 6 Number of trials until the spooler of the master print server is recognized as offline.
- 7 Interval in seconds in which the print servers check the mutual operational capability.
- 8 Number of trials until the *steadyPRINT Server* of the backup print server is recognized as offline.
- 9 Number of trials until the partner server is recognized as offline (Check via Ping)

If an error occurs during one of the tests, an email notification will be issued.

The e-mail profile can be saved in the settings of the print server to be tested (see figure [E-mail profile in case of errors in functional testing](#)).

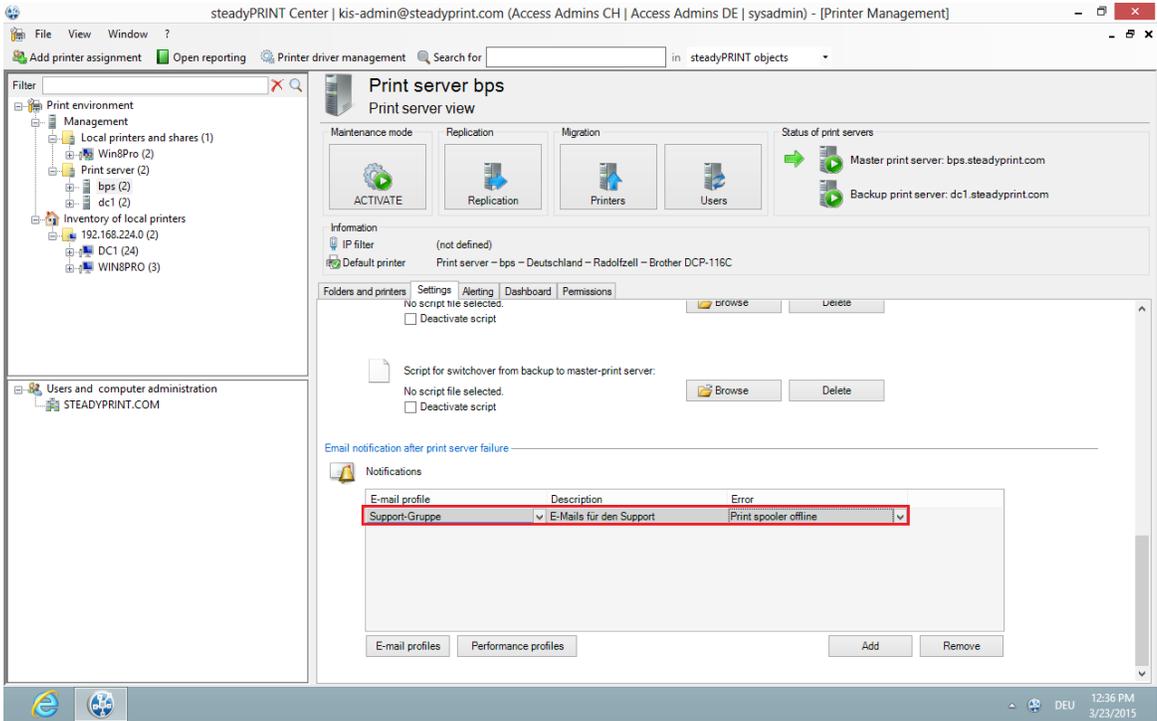


Abbildung 47: E-mail profile in case of errors in functional testing

**Part**



**VII**

## 7 Print Server Replication and Migration

**steadyPRINT** offers the functions of replication and migration so that printers can be copied from a source to a target print server. The former allows simple copying of the printers to another print server with the same operating system. Migration, on the other hand, provides additional options. These make it possible to copy printers between different operating systems, for instance from Windows Server 2003 to Windows Server 2008 R2.

**steadyPRINT** provides replication and migration functions to copy printers from a source to a target print server. Replication allows to simply copy printers to a different print server using the same operating system. Migration, on the other hand, provides additional options. These make it possible to copy printers between different operating systems, for instance from Windows Server 2003 to Windows Server 2008 R2.

For both functions, **steadyPRINT** copies the given port, the print processors, the drivers and the settings for the selected printer and then installs the printer on the target system.

Print server replication and migration can be accessed via the respective print server view in the **steadyPRINT Center**. For both functions a separate window opens which finally leads to the operation of the different processes.

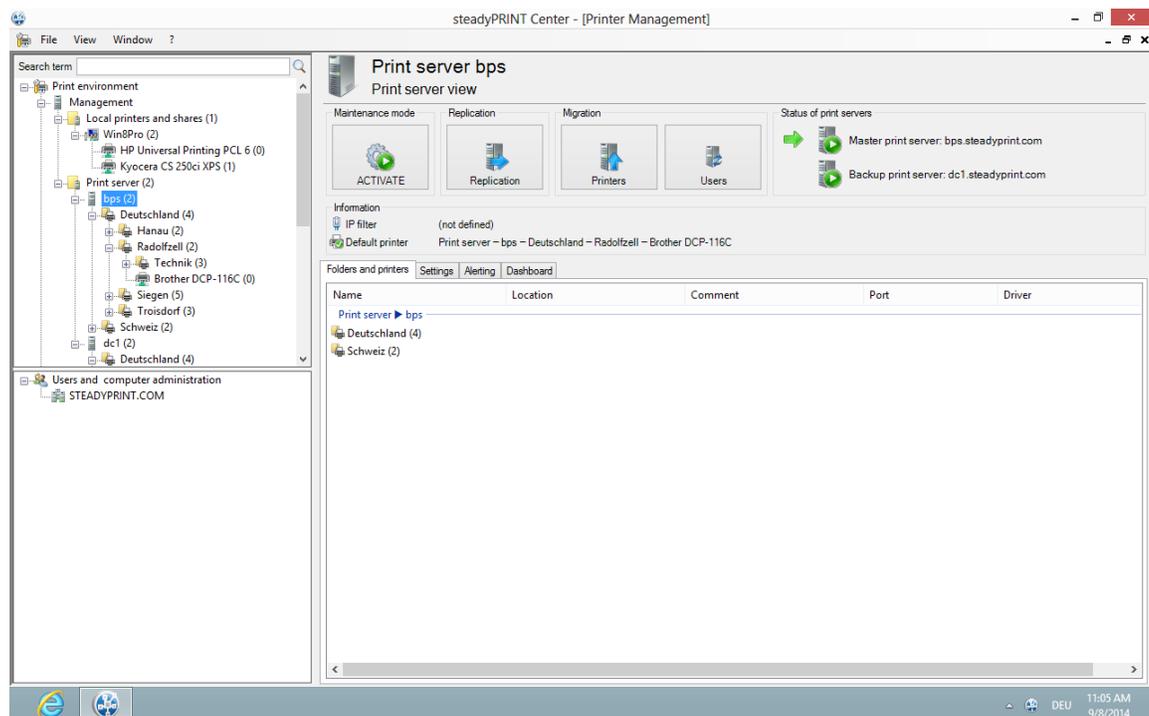


Figure 48: steadyPRINT Center - Selection of print server replication and migration

With **steadyPRINT** you are not only able to perform the print server migration but at the same time also to change all users to the new print servers. For more information, see chapter [User Migration](#).

---

**Note**     *Indication of Backup or Migration Print Server*

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For the replication/migration it is necessary to indicate a backup and/or migration print server via the **steadyPRINT Center**. Proceed as described in [The Backup Print Server](#).

## 7.1 View

Basically, the same components can be found in both the replication and migration screens. The following explanation will be in reference to the migration view as it also contains special supplementary operations in addition to the standard ones. References will be made at the appropriate junctions as to which functions will not be available in the replication screen.

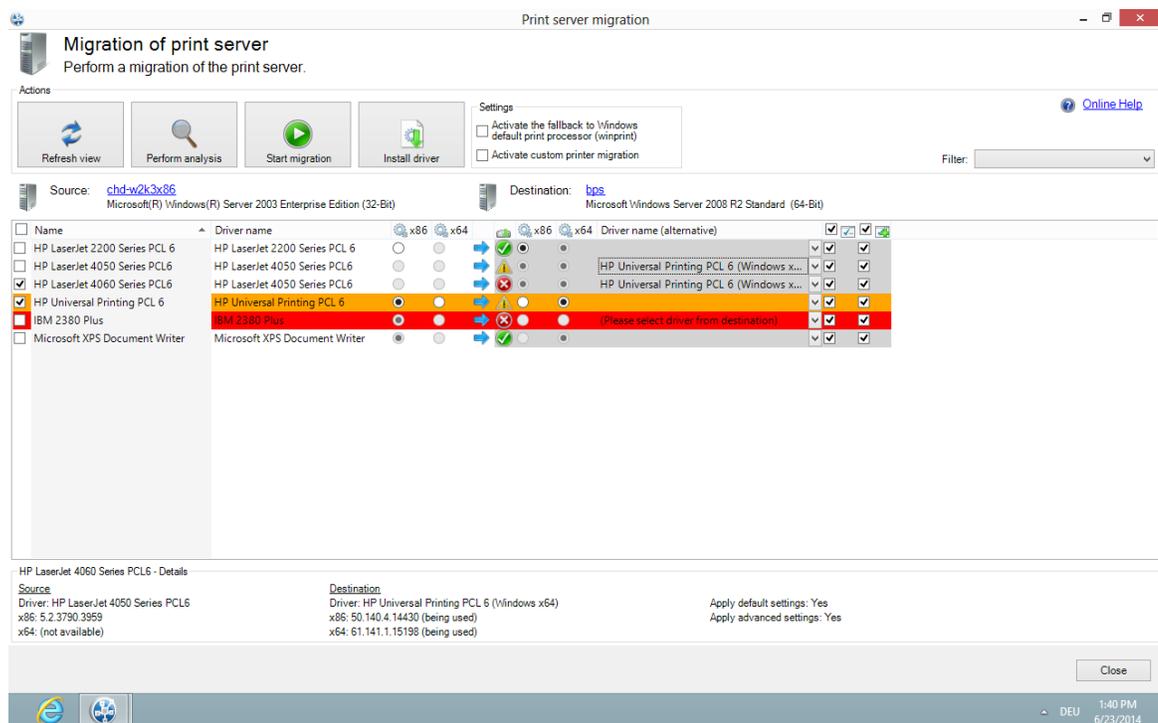


Figure 49: steadyPRINT Center – migration view

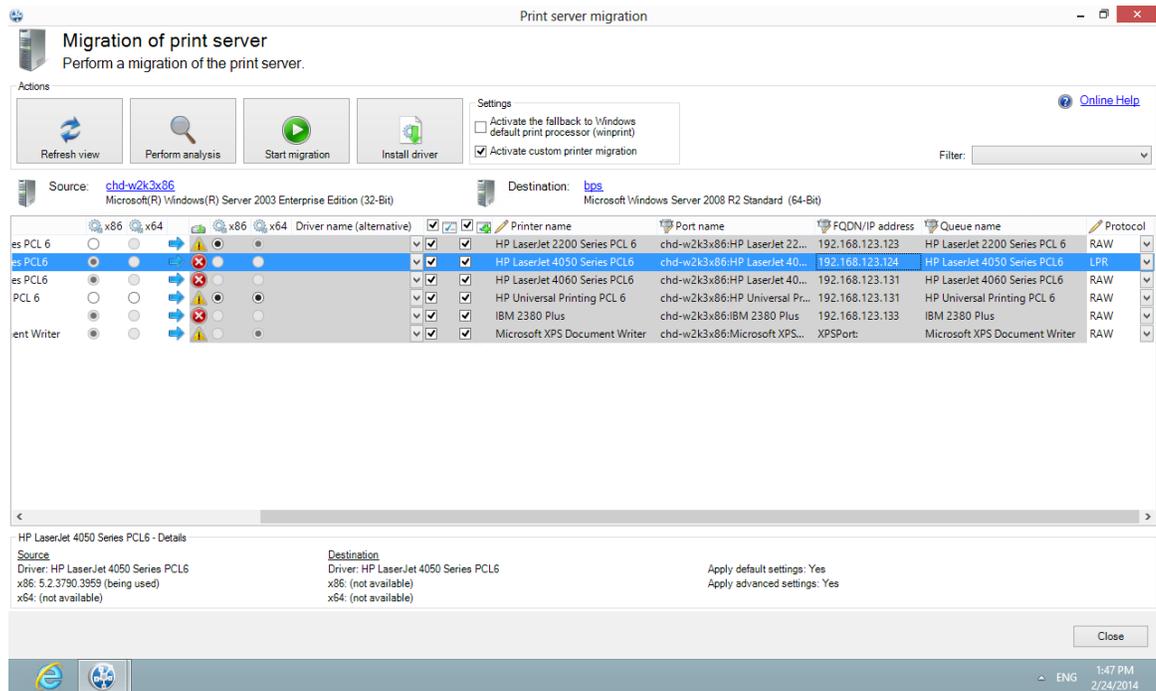


Figure 50: steadyPRINT Center - extended migration view

First, please find below a legend (see [table 2](#)) with an explanation of the individual control elements found in [Figure - steadyPRINT Center - migration view](#) and [Figure - steadyPRINT Center - extended migration view](#).

Control element	Description
1 – Refresh View	Loads the necessary data from the print server and refreshes the view.
2 – Perform Analysis (migration only)	Analyzes the printers for migration and highlights them with various colors: - Orange: Different driver versions on target and source systems. - Red: No matching printer driver - with regard to name - found on both systems.
3 – Start Replication/ Migration	Starts the replication or migration process. This can last several minutes or even hours, depending on the number of printers, drivers, etc. to be copied.
4 – Install Drivers	Opens the dialog screen to install an additional printer driver (only possible locally).
5 – Print Processor	When active, the Windows print processor "winprint" is used as a fallback if the migration with the default print processor setting from the source system fails. When migrating from a 32- to a 64-bit system, the print processors might not be compatible.

<b>6 – Source System</b>	<p>Displays the name and the version of the source system.</p> <p>Tip: Click on the name of a print server to open a remote desktop connection.</p>
<b>7 – Target System</b>	<p>Displays the name and the version of the target system.</p> <p>Tip: Click on the name of a print server to open a remote desktop connection.</p>
<b>8 – Filter</b>	<p>Filters for the printer displays:</p> <ul style="list-style-type: none"> <li>- [Off]: Filter off</li> <li>- Printers installed: Filters for printers that have been installed on source and target systems.</li> <li>- Printers not installed: Filters for printers that are installed on the source system but not on the target system.</li> <li>- No suitable driver found (migration only): Filters for printers for which no drivers with the same name can be found on the target system.</li> <li>- Driver version unequal (migration only): Filters for printers for which different driver versions on source and target system were found.</li> </ul>
<b>9 – Details</b>	Displays the details concerning a selected printer.
<b>a – Printer Selection</b>	Selects a printer for either replication or migration.
<b>b – Name</b>	Displays the name of the printer.
<b>c – Driver Name</b>	Displays the driver name of the printer.
<b>d – x86 (Source)</b>	Displays whether a 32-bit driver is installed on the source system.
<b>e – x64 (Source)</b>	Displays whether a 64-bit driver is installed on the source system.
<b>f – Installiert (Target)</b>	<p>Displays whether the printer and its dependencies are installed on the target system:</p> <ul style="list-style-type: none"> <li>- green – printer installation complete</li> <li>- yellow – driver and/or port different</li> <li>- red – printer not installed.</li> </ul>
<b>g – x86 (Ziel)</b>	Zeigt an, ob ein 32-Bit-Treiber auf dem Zielsystem installiert ist.
<b>h – x64 (Ziel)</b>	Zeigt an, ob ein 64-Bit-Treiber auf dem Zielsystem installiert ist.
<b>i – Alternative Drivers (migration only)</b>	<p>The possibility to select an alternative driver that can be used during migration.</p> <p>This column is predefined after an analysis if the same printer already exists on the target system with another driver.</p>

	<p>Should a 64-bit driver do not exist on the source or target systems, you will be requested to select an alternative driver for the migration so that the process can be completed successfully.</p> <p>Please note: All available drivers for the respective target system are listed for selection. They can be viewed under <a href="#">Printer Administration &gt; Print Server &gt; [COMPUTER] &gt; Drivers on the Windows Print Server</a>.</p>
<b>i – Extended Printer Migration (migration only)</b>	<p>Activates the view for the extended migration.</p> <p>The additional columns are initialized with default values which can be adjusted as described under [...].</p>
<b>j – Apply Default Settings</b>	<p>Indicates whether the default printer settings are to be transferred to the target system.</p>
<b>k – Apply Extended Settings</b>	<p>Indicates whether the extended printer settings are to be transferred to the target system.</p>
<b>l – Printer Name (extended migration only)</b>	<p>Indicates which name the printer to be migrated has on the target system after migration. This value is editable.</p>
<b>m – Port Name</b>	<p>Indicates which name the port to be migrated has on the target system after migration. This value is editable.</p>
<b>n – FQDN/IP-Address</b>	<p>Indicates which FQDN or IP address the port to be migrated has on the target system after migration. This value is editable.</p>
<b>o – Name of the Print Queue</b>	<p>Indicates to which print queue the port shows after migration. Only necessary for protocol "LPR". This value is editable.</p>
<b>p – Protocol</b>	<p>Indicates the protocol the printer port communicates with. This value is editable.</p>

**Table 2: steadyPRINT Center: Replication/migration legend**

## Extended Printer Migration and Adaption of Default Values

The columns of the extended printer migration are initialized with default values. During a migration, the same pattern for printer names, port names etc. is frequently used. **steadyPRINT** allows a configuration of these default values which enables you to influence the initialization and thus to reduce the administrative work during a printer migration. Once the migration view has been opened, this configuration file can be found under `%APPDATA%\steadyPRINT\migrationTable.xml` as XML file. These files can be edited with a usual text editor (e.g. notepad). While doing so, indices of the respective default pattern can be adapted by using the definitions listed below.

Excerpt of the configuration file `migrationTable.xml`:

```
[...]
19 <SOAP-ENC:Array id="ref-3" SOAP-ENC:arrayType="xsd:anyType[5]">
```

```

20 <item id="ref-9" xsi:type="SOAP-ENC:string">[PortProtocol - Modify here!]{0}</item>
21 <item id="ref-10" xsi:type="SOAP-ENC:string">[PrinterName - Modify here!]{0}</item>
22 <item id="ref-11" xsi:type="SOAP-ENC:string">[PortQueue - Modify here!]{0}</item>
23 <item id="ref-12" xsi:type="SOAP-ENC:string">[PortAddress - Modify here!]{0}</item>
24 <item id="ref-13" xsi:type="SOAP-ENC:string">[PortName - Modify here!]{0}:{1}</item>
25 </SOAP-ENC:Array>
[...]
```

The following table shows the meaning of the respective lines and values. The patterns can also contain combined values (see [line 24](#)). Applied to the printer name, you could thus define for example the prefix `Printer_` for every printer to be migrated.

Line	Entry	Index	Default Pattern	Example for Index 0
20	PortProtocol	0 = RAW (default) 1 = RAW 2 = LPR	{0}	RAW
21	PrinterName	0 = printer name from source 1 = print server name from source	{0}	Lexmark T642
22	PortQueue	0 = shared name from source 1 = printer name from source	{0}	T642
23	PortAddress	0 = FQDN/IP address of port from source 1 = print server name from source 2 = port name from source	{0}	192.168.100.150
24	PortName	0 = print server name from source 1 = printer name from source 2 = port name from source	{0}:{1}	DE_Client123:Lexmark T642

Table 3: steadyPRINT Center - Definition of configuration file for printer mirgraion

#### Note *Transfer of Changed Printer Settings*

Changed printer settings are identified but not visualized by **steadyPRINT**. Simply select the desired printer and perform the replication or migration in order to transfer the changed settings from the source to the target system.

#### Note *Extended Migration*

The extended migration is mainly used to transfer local printers to a print server. For this purpose different types of terminals, that can be configured, are necessary (USB port turns into TCP/IP port).

All arrays that belong to the extended migration are initialized with default values. A description of how to adjust these values can be found in [...].

## 7.2 Printer Driver Management

With the release of **steadyPRINT** version 5.2, a large-scale printer driver management has been implemented for the administrators.

Here, you have the option to select between 3 scenarios:

1. [Installation of a printer driver on one or more print servers](#)
2. [Distribution of a printer driver from a source print server to one or more target print servers](#)
3. [Exchange of a driver in one or more existing printers](#)

### 7.2.1 Installation of Printer Drivers

The installation of printer drivers has been considerably simplified in **steadyPRINT** 5.2.

There are several options:

1. Installation of a printer driver by means of an \*.inf-file on 1 target system
2. Installation of a printer driver by means of an \*.inf-file on several target systems
3. [Copying a printer driver from a source print server to one or more target print servers](#)

#### Installation of a print server by means of an \*.inf-file on 1 target system

For this purpose, **steadyPRINT** uses the Windows-owned wizard comfortably guiding you through the installation of the printer driver on the target system.

You will find this function in the context menu of the tree under the print server, to which you wish to install a driver (see figure [Availability via the context menu of a printer driver](#))

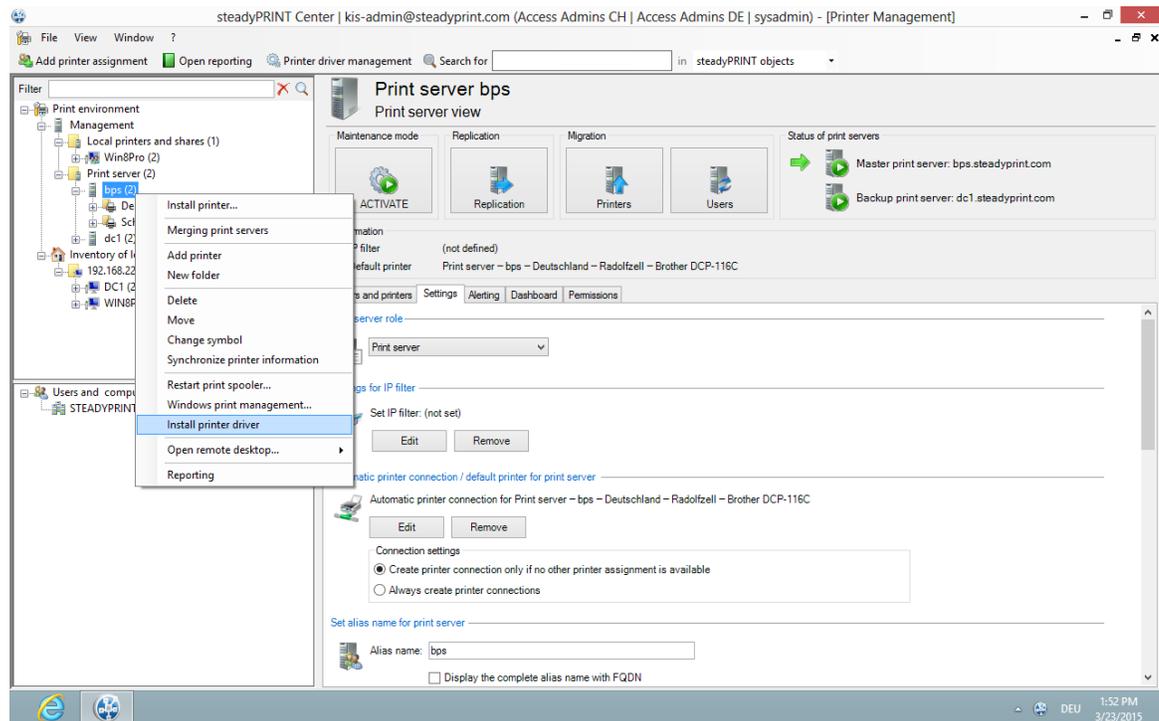


Figure 51: Availability via the context menu of a printer driver

## Installation of a printer driver by means of an \*.inf-file to several target systems

There is a new interface in **steadyPRINT** that can be called up via the respective entry in the context menu of the tree (See figures [Availability via the context menu of all print servers](#) and [Selection of a printer driver and the print servers](#)).

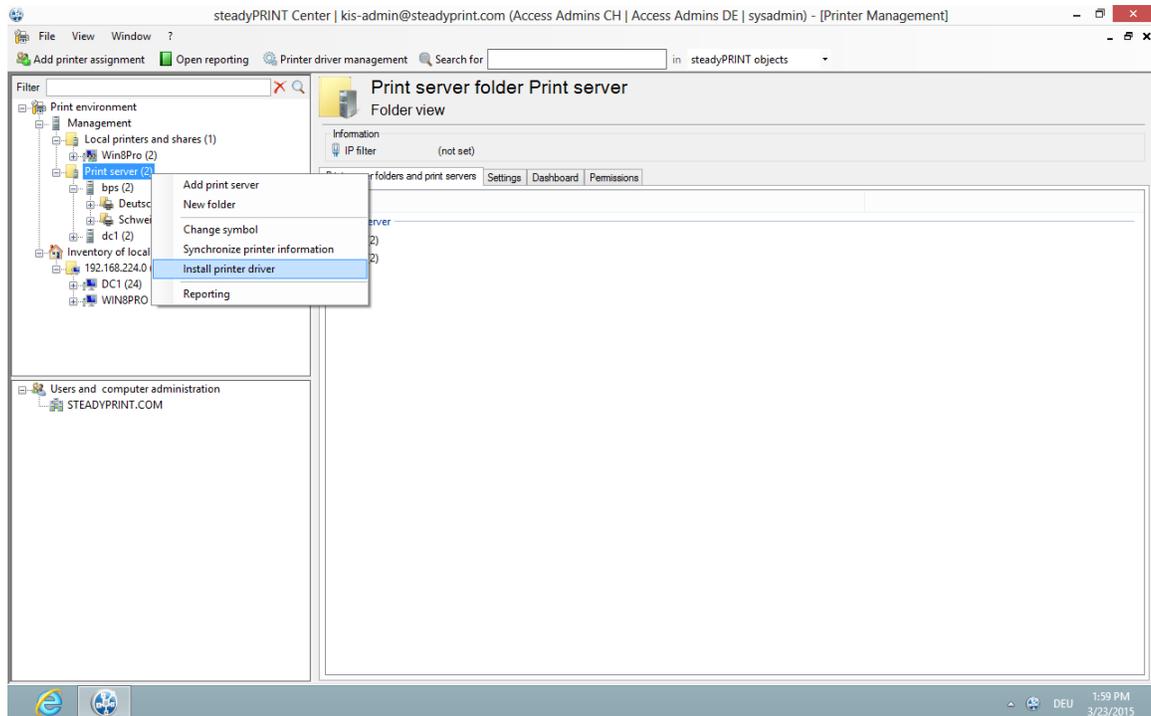


Figure 52: Availability via the context menu of all print servers

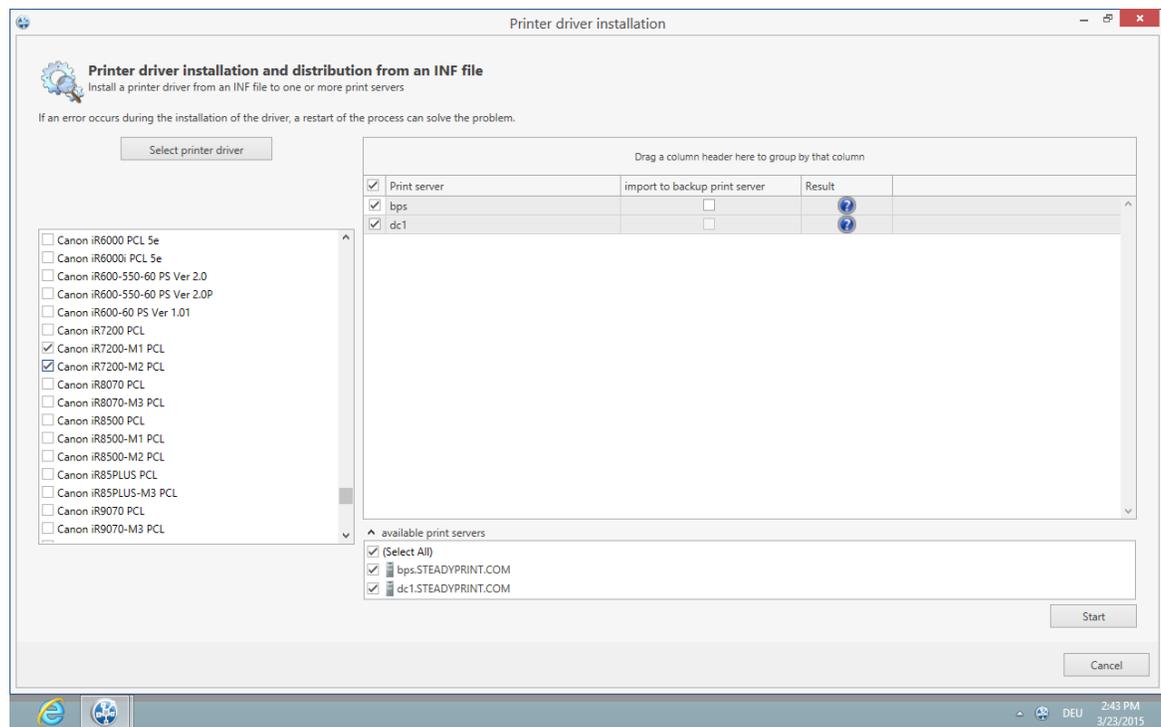


Figure 53: Selection of a printer driver and the print servers

#### Note **Printer Driver Selection**

The printer driver must be available on a network path that can be accessed from the target print server.

steadyPRINT converts network drives into UNC paths and are thus also possible.

Here, you now have the possibility to select an \*.inf-file which is then copied to the selected target systems.

Furthermore, **steadyPRINT** directly offers the possibility to transfer the selected printer drivers to an appropriate and associated backup print server.

#### Note **Listed Print Servers**

In order to have a print server being listed in this view, several tests have to be passed successfully.:

1. The print server has to be displayed in the tree (See [Authorizations in the steadyPRINT Center](#)).
2. The print spooler of the print server has to be active (See [Warming Up Time of the Print Spooler](#)).
3. The user logged in to the **steadyPRINT Center** has to be registered on the print server as a local administrator.

#### Note **Selection of the Target Print Servers**

The printer driver is copied to all print servers selected in the upper table.

## 7.2.2 Distribution of Printer Drivers

The distribution of printer drivers in **steadyPRINT** can be accessed via an entry in the command bar (see figure [Access via the access bar](#)),

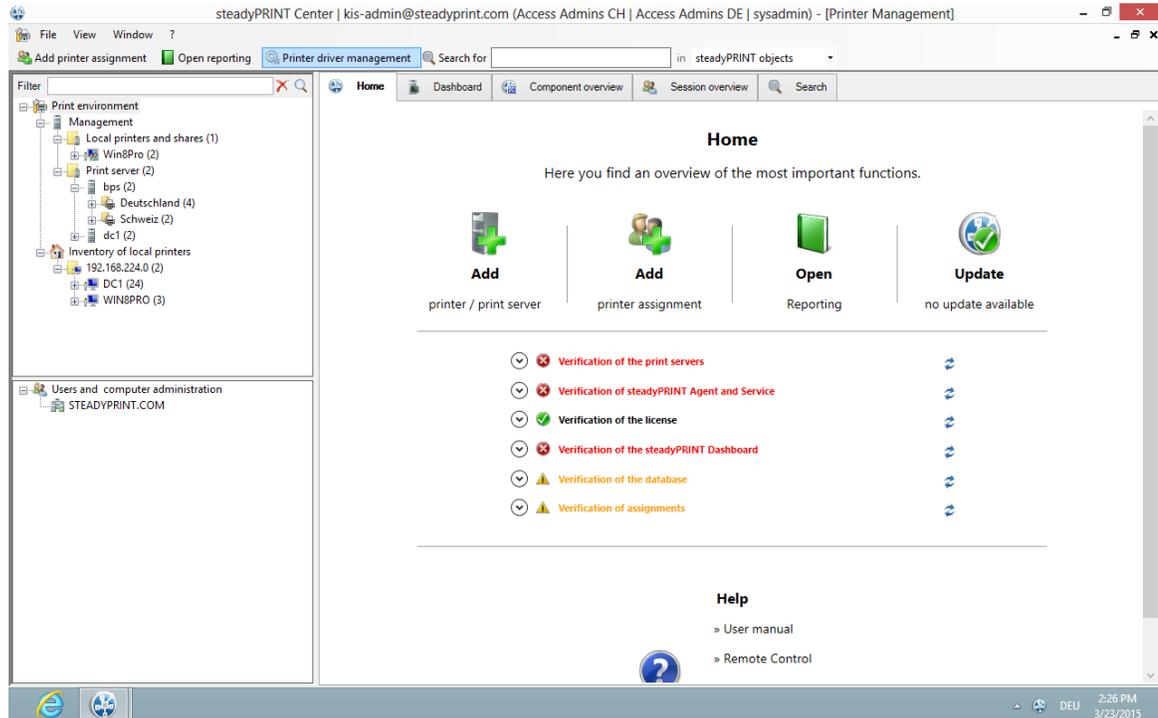


Figure 54: Access via the action bar

followed by a new window that enables you under item 1 to distribute printer drivers to other print servers.

Item 2 enables you to exchange printer drivers (see figure [Selection of the operation to be run](#)) in printers that already exist.

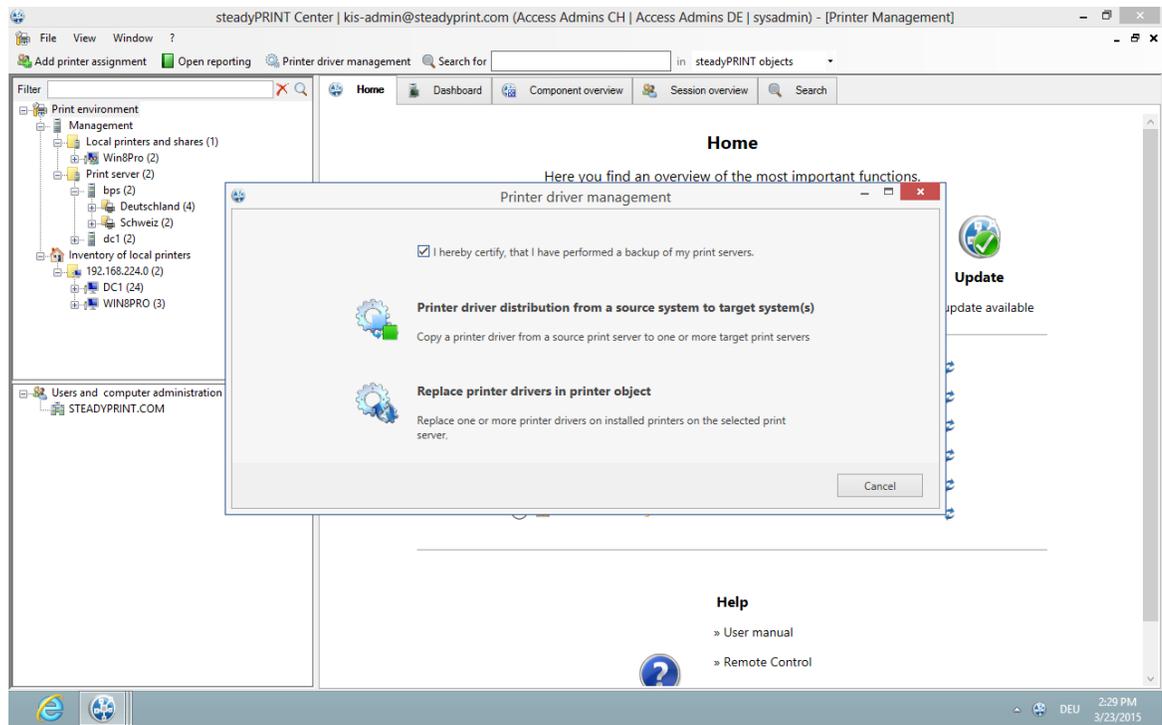


Figure 55: Selection of the operation to be run

Having confirmed that an efficient backup of the affected part of your printing environment has been created, you continue with the upper choice.

In the opening window (see figure [Selection of the source print server](#)), you select the print server that includes the printer driver to be distributed.

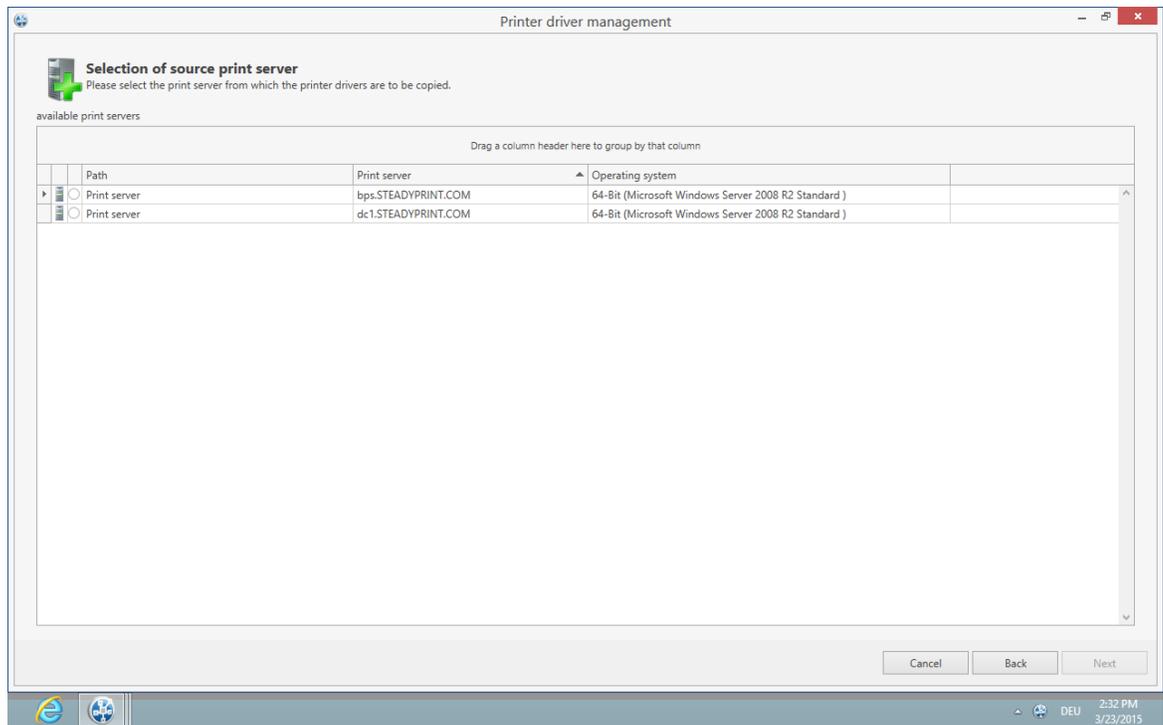


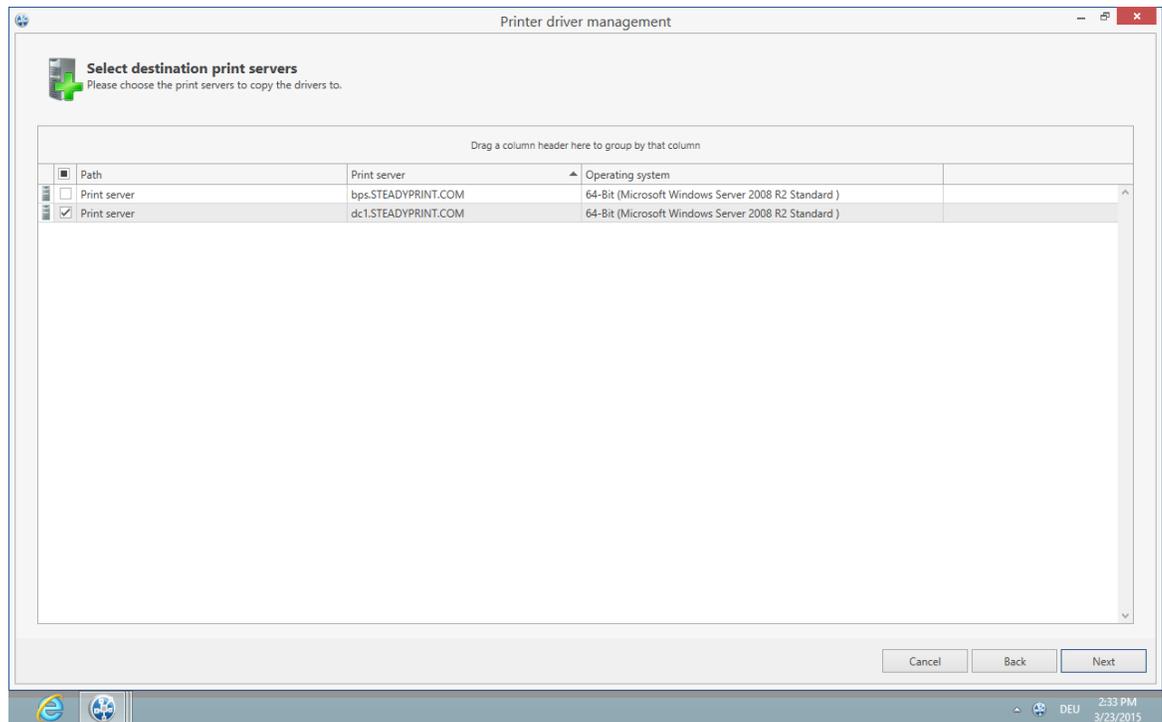
Figure 56: Selection of the source print server

#### Note **Listed Print Servers**

In order to have a print server listed in this view several tests have to be passed successfully.

1. The print server has to be displayed in the tree (See [Authorizations in the steadyPRINT Center](#))
2. The print spooler of the print server has to be active (See [Warming Up Time of Print Spooler](#))
3. The user logged in to the **steadyPRINT Center** has to be registered on the print server as a local administrator.

Then, **steadyPRINT** will ask for those print servers to which the printer driver is to be transferred (see figure [Selection of the target print server](#)).



**Figure 57: Selection of the target print server**

Please select those printer drivers in the opening view which are to be copied to the target print server.

Even here, you have the option to have the printer driver copied to the possibly existing backup print server at the same time (see figure [Selection of the printer driver to be transferred](#)).

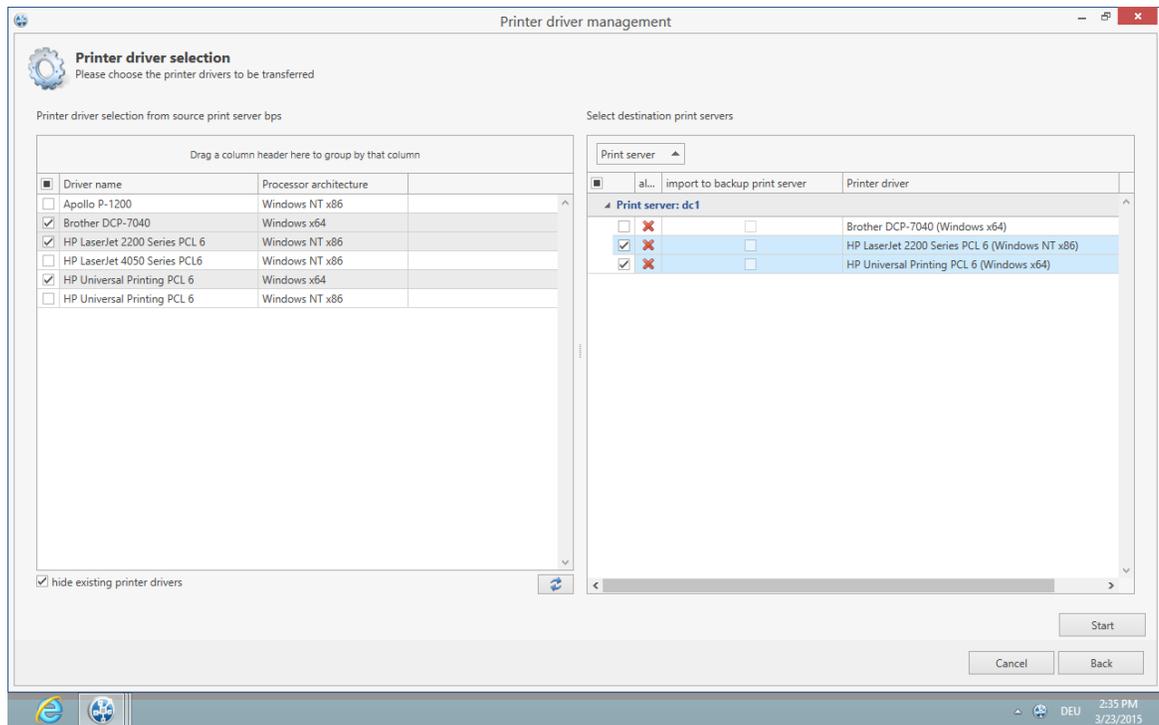


Figure 58: Selection of the printer driver to be transferred

### 7.2.3 Replacement of Printer Drivers

Printer drivers with already existing printers can be replaced via **steadyPRINT** by accessing an entry in the command bar (see figure [Availability via the action bar](#)).

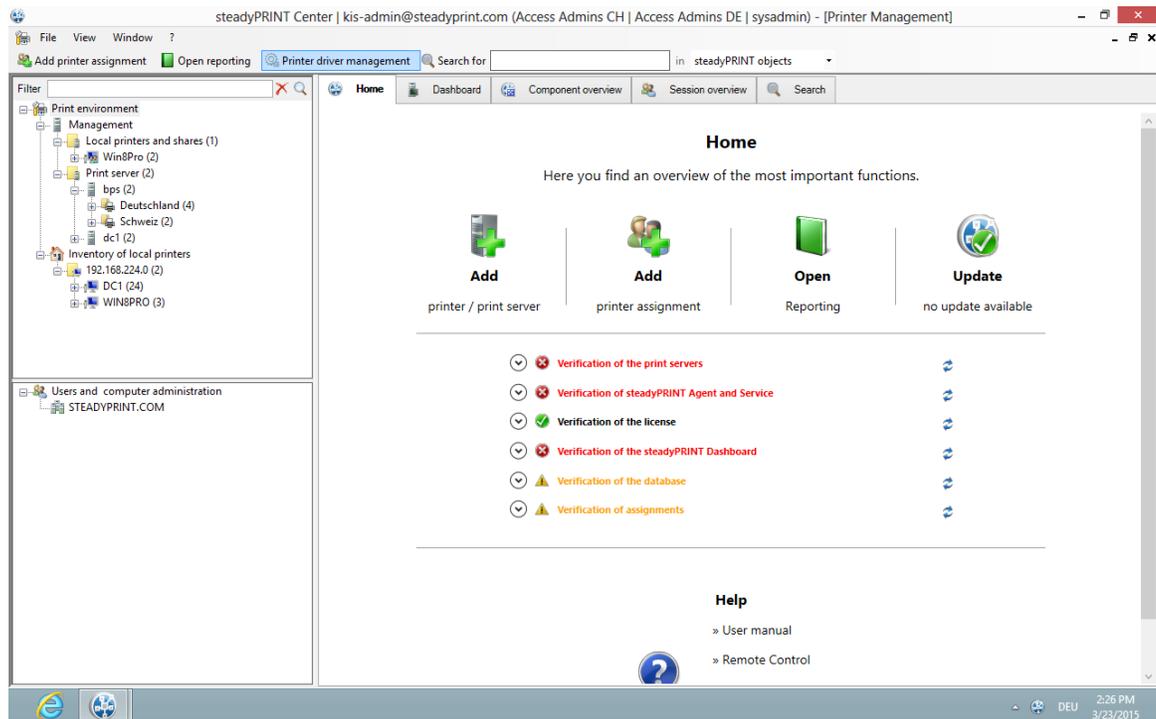


Figure 59: Availability via the action bar

A new window opens and enables you under item 1 to distribute the printer drivers to other print servers.

Item 1 enables you the [distribution of printer drivers](#) to already existing printers.

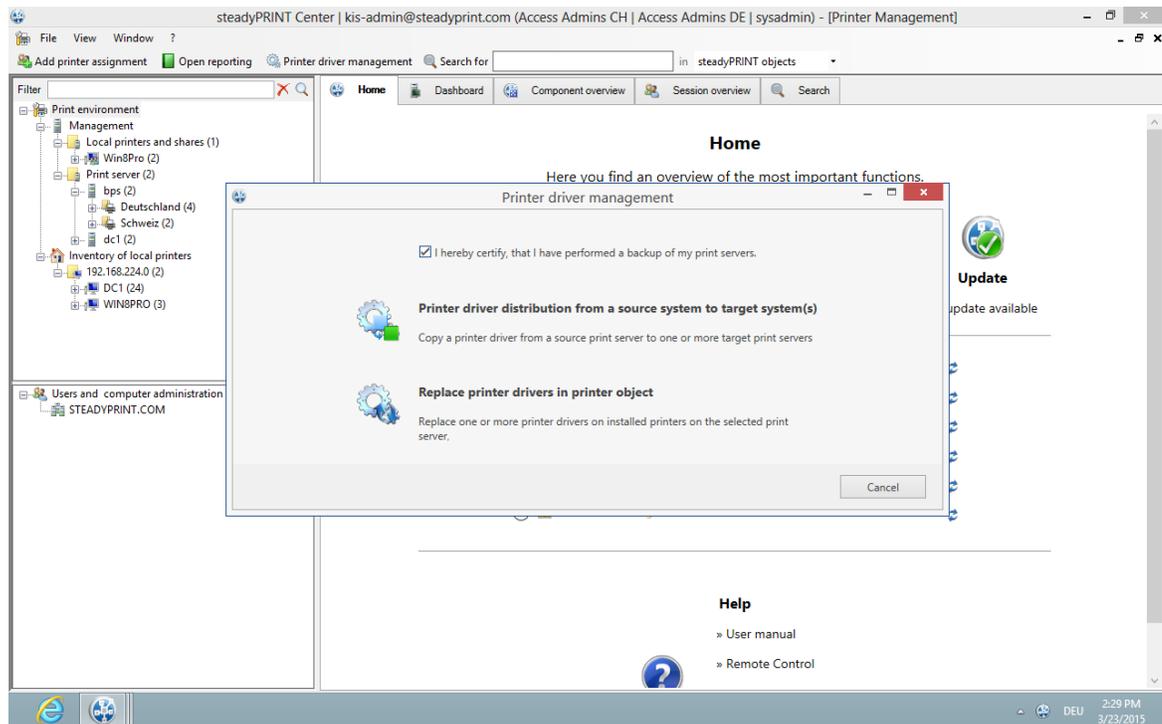


Figure 60: Selection of the operation to be performed

Having confirmed that an efficient backup of the affected part of your printing environment has been created (see figure [Selection of the operation to be performed](#)), you continue with the upper choice.

In the opening window, you select the print servers on which one or more printer drivers should be replaced (see figure [Selection of the target print server](#)).

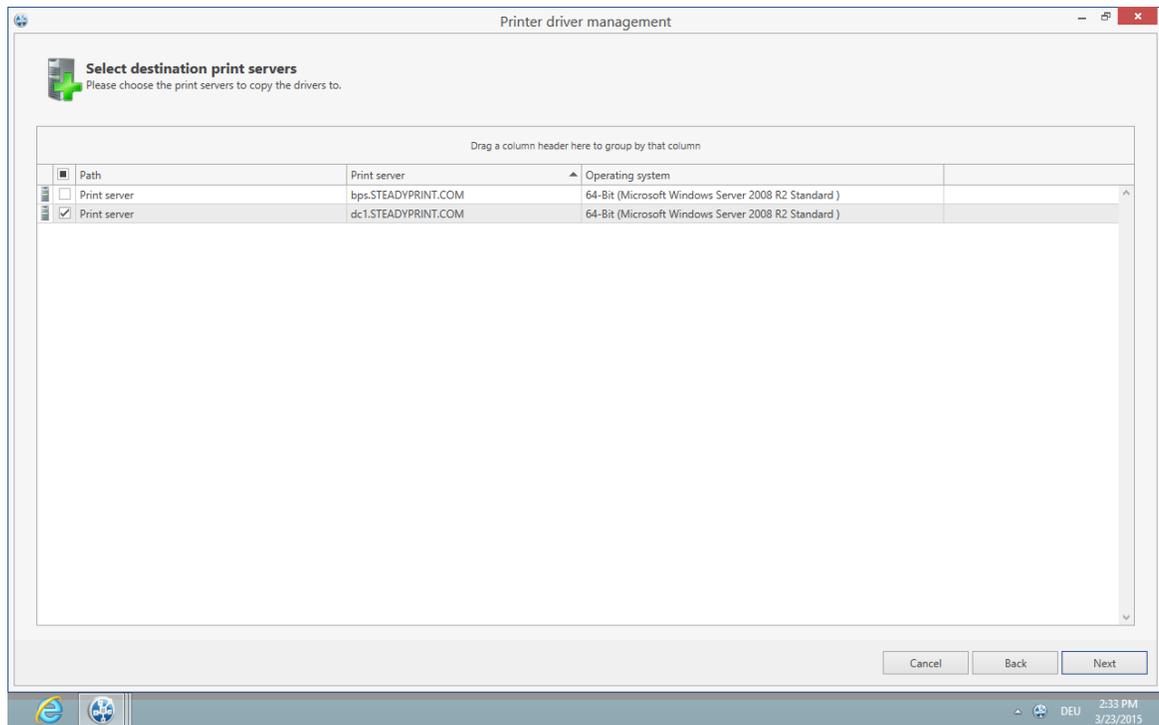


Figure 61: Selection of the target print server

#### Note **Listed Print Servers**

In order to have a print server listed in this view several tests have to be passed successfully.

1. The print server has to be displayed in the tree (See [Authorizations in the steadyPRINT Center](#))
2. The print spooler of the print server has to be active (See [Warming Up Time of Print Spooler](#))
3. The user logged in to the **steadyPRINT Center** has to be registered on the print server as a local administrator.

On the following page (see figure [Selection of the printer drivers to be replaced](#)) you now specify which driver should be installed for the respective printers.

#### Note **Which printers are processed?**

All printers for which a printer driver was selected in the selection box are processed.

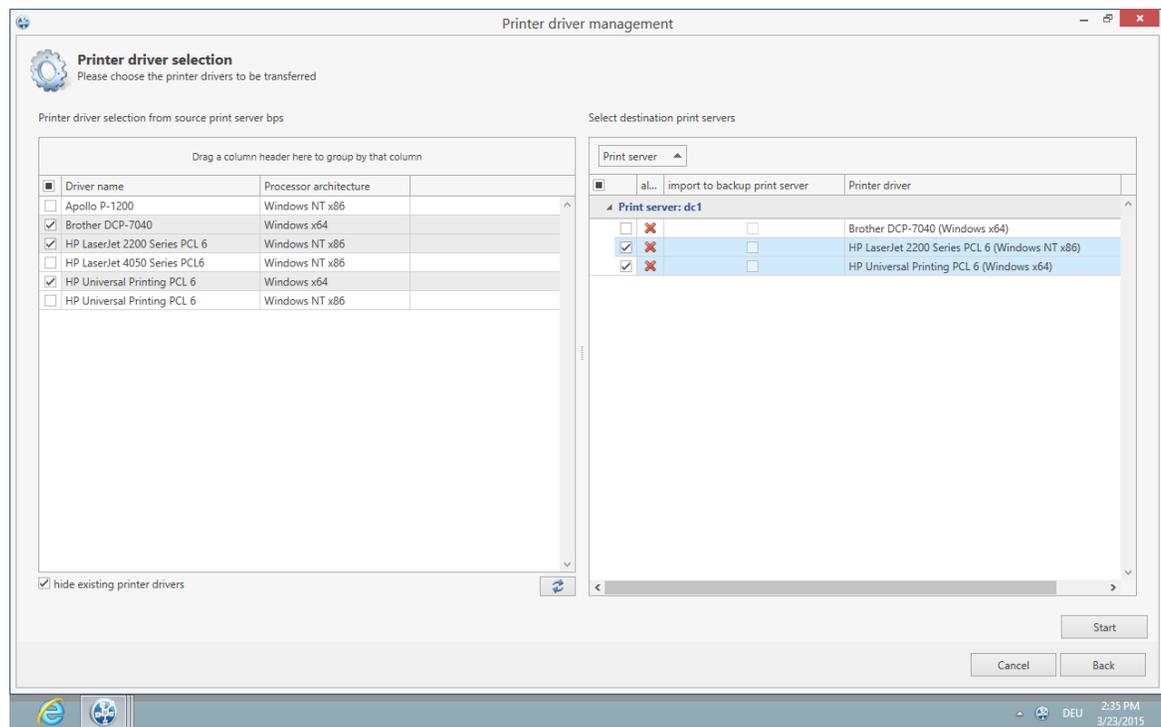


Figure 62: Selection of the printer drivers to be replaced

## 7.3 Carrying Out a Replication or Migration

To carry out a replication or a migration of a printer, please proceed as described below. It is important here to define the replication/migration configuration that will finally be used during the process.

Execution steps:

0. Query of print servers and display of printers available on the source print server (automatically carried out when opening the [Replication and Migration View](#)). This process can also be carried out and repeated manually via [Update View](#).
1. Carrying out an analysis for the migration (available in the [Migration View](#) only).
2. Selection of the printers to be replicated or migrated.
3. Selection of the printer drivers to be used. Select whether you wish to use the drivers from the source or from the target for this process.
4. If necessary, select an alternative printer driver for this process (available in the [Migration View](#) only). This stems from the target system and is used when installing the printer on the target print server.
 

*Please note: To display and use the desired drivers, they will need to be added to the target print server beforehand.*
5. If necessary, enter a different printer name (available in [Extended Migration View](#) only). The renamed printer will then be set up on the target print server.
6. Selection of transferred printer driver settings.
7. If necessary, enter a different port name (available in [Extended Migration View](#) only). The renamed port will then be set up on the target print server.
8. If necessary, enter a different FQDN or a different IP address for the port to be migrated. (available in [Extended Migration View](#) only).
9. If necessary, enter a different queue name for the port to be migrated (available in [Extended Migration View](#) only). This is only necessary when using the "LPR" protocol.
10. If necessary, enter a different protocol for the port to be migrated (available in [Extended Migration View](#) only). The default protocol for TCP/IP-based printers is "RAW". Use "LPR", to refer to a local print queue of a different computer from the print server. Make sure that the correct queue name for

the port has been entered.

11. Start the replication or migration process.
12. Optional: Repeat the replication or migration process, if necessary. Under certain circumstances, the Windows print queue might take some time to update all information of the new printers which are now available but not yet displayed as expected. Tip: Restart the print queue on the target system or the print server. Usually an update of the view will be sufficient.
- 13.

---

**Note**      ***Replication as of Windows Server 2012 with v4-Printer Drivers***

It is partly not possible to perform the driver replication of delivered in-box v4 printer drivers. During the replication, the **steadyPRINT Center** installs the driver from the system-owned driver store as a fallback on the target system by using the printer driver name of the source print server. Therefore, please make sure that the target and source print servers have the same version and patch level.

---

**Important**      ***Use of the Extended Migration***

Use the extended migration only if the printer name, port name, FQDN/IP address, queue name and/or the protocol are to be modified during the printer migration!

For a regular migration that only requires the adaptation of the printer driver, the normal migration view is sufficient and should thus be used.

---

**Important**      ***Migrating from Windows Server 2003 to 2008***

For most migrations from Windows Server 2003 to 2008, it is necessary that the print processor file `localspl.dll` lies in the shared folder `\\[COMPUTER]\prnproc$\w32x86\` on the migrating print server. If an error occurs, the error message will look somewhat like this, for example: "Internal error. The attempt to add print processor WinPrint failed. The file "\\chd-w2k3-x86\prnproc\$\w32x86\localspl.dll" could not be found."

You can simply copy the file `localspl.dll` from `C:\WINDOWS\system32` to `C:\WINDOWS\system32\spool\prtprocs` to make it available in the shared folder.

---

**Important**      ***Using Incompatible Printer Drivers***

Please make sure that compatible drivers are available and used for migration. If an incompatible driver is used for the migration, the error message will look something like this, for example: "The attempt to add printer IBM 2380 Plus to computer chd-w2k3-x86 has failed - the printer IBM 2380 Plus could not be installed on print server BOREAS: The printer driver is unknown".

---

**Important**      ***Using Incompatible Print Processors***

Please make sure that compatible print processors are used for the migration. The attempt to migrate "old" and incompatible processors will lead to the following

error message: „[...] The print processing is unknown [...]“. To solve the problem, please select the print processor [winprint](#) on the source system for the affected printers. After that, the migration should run through. After successful process completion, a subsequent adjustment of the print processor on the target system is possible.

**Note**      ***The Print Server's Operating System is not Shown in the Display***

For the correct display of the operating system in the display of the respective views it must be ensured that WMI queries are allowed on the affected systems.

## 7.4 User Migration

User migration (see [Figure - steadyPRINT Center - Selection Print Server Replication and Migration](#)) is possible at any time provided a backup print server has been installed. During this process, the master print server becomes the backup server and vice versa. Consequently, the migration of all printer connections for users, groups and computers also takes place. Please note that a migration of the assignments will only function for those present in the [steadyPRINT Database](#). After the migration has been executed in the [steadyPRINT Center](#), it will be necessary to restart the clients.

It is possible to have the [steadyPRINT Agent](#) take over all existing printer connections automatically before the migration. The following explains the procedure for all available connections which are not present in the database:

1. First import to the [steadyPRINT Center](#) the desired print servers with all available printers to add these to the [steadyPRINT Database](#). Please note that the [steadyPRINT Agent](#) only recognizes the connections to the respective printers that also exist in [steadyPRINT](#)
2. Then enable the “[recognize printer connections added manually in Windows and automatically map to a user in steadyPRINT](#)” option under [Settings > Printer Connections](#) in the [steadyPRINT Center](#).
3. Make sure to disable the “[delete network printer connections not administered by steadyPRINT at Agent startup](#)” option under [Settings > Printer Connections](#) in the [steadyPRINT Center](#). Otherwise [steadyPRINT](#) will get rid of these, making a subsequent acquisition no longer possible.
4. Configured in this way, the [steadyPRINT Agent](#) acquires all printer connections at start up and adds these to the database.

*Please note: Automatically generated printer connections for the respective printers are always found directly below the print server in the [steadyPRINT Center](#).*

**Important**      ***Printer Availability on Master and Backup Print Server***

It is necessary to ensure the availability of all printers on both print servers beforehand in order to guarantee a smooth transition.

**Important**      ***Printer Driver Integrity***

Please note that after migration the printer drivers stem from another print server and may thus need to be reinstalled for printer connection generation.

This circumstance can be corrected by activating the administrative printer driver installation function in the [steadyPRINT Center](#).

---

**Note**      ***User Migration and Reliability***

To ensure that reliability remains intact after user migration, the [steadyPRINT Server](#) service must be installed on the new backup print server (formerly master print server) before this system begins service. This is necessary for monitoring.

---

**Note**      ***Availability of the steadyPRINT Agent on Clients for User Migration***

The installation of the [steadyPRINT Agent](#) on the clients is absolutely necessary for the migration for users, groups and computers.

## 7.5 Merging Print Servers

When merging print servers, it is possible to logically merge and consolidate the print servers added to [steadyPRINT](#). Use this function to merge for example three print servers into one. All already existing printer assignments including the defined default printers will be transferred to the specified print server.

### Procedure of Merging Print Servers

---

The individual steps necessary for merging two print servers are described below. If you want to merge three or more, repeat the process in the same way.

#### 1. Indication of backup/migration print server

Indicate the backup/migration print server in the same way as described in chapter [The Backup Print Server](#). By doing so, you choose the print server on which the printers (printer assignments) and default printer are to be transferred.

#### 2. Ensure printer availability

Before merging the print servers, make sure that the printers from the master print server are completely available on the backup/migration print server, meaning that the replication or migration process has taken place. How to carry out a replication or migration is described in chapter [Carrying Out a Replication or Migration](#).

#### 3. Merging print servers

Start the process via the context menu of the print server `[print server] > merging print servers`. [steadyPRINT](#) then logically moves all printers, printer assignments and default printers from the master to the backup/migration print server. After the movement of all objects, the current backup print server will become the master print server. Upon successful process completion, steadyPRINT deletes the previous master print server. All printers (printer assignments) with an error, remain.

#### 4. Deleting old printer connections

The printer connection is immediately transferred to the new print server. Old connections, however, remain unaffected. Using the setting [steadyPRINT Center > Settings > Agent Profile > Inventory > Delete Printer Connections](#), old printer connections will be cleared up on the respective clients on the next start of the [steadyPRINT Agent](#).

---

**Important**    ***Undo the Process***

Once the print servers have been merged, they cannot be separated again! Therefore it is recommended to create a backup of the [steadyPRINT database](#) beforehand in order to be able to restore the status previous to the print server merging!

---

**Important**    ***Moving Printers (Printer Assignments)***

[steadyPRINT](#) only moves printers and printer assignments as well as default printers within the database. This process does not affect the installed printers of the print servers in question. Previous to this, use the integrated replication or migration.

---

**Note**            ***What Happens to Printers that Have Already been Imported for the Backup/Migration Print Server?***

Printers that have already been imported for the backup/migration print server remain unchanged.

---

**Note**            ***What Happens to Printer Assignments that Already Exist for the Backup/Migration Print Server?***

In case an assignment for a printer already exists on the backup/migration print server for the respective AD object, it remains unchanged. The same applies to default printers which are transferred by [steadyPRINT](#) only if the assignment has to be newly created.

## 7.6 Import

This chapter describes the process of importing printers and printer connections to [steadyPRINT](#) from a CSV file.

### 7.6.1 Importing Print Servers from CSV File

Apart from the procedure described in chapter [Print Server Administration](#), the [steadyPRINT Center](#) also offers the function of importing print servers via a CSV file. Specify the file to be imported via [Printing Environment > Local Printers and Shares > Import Local Printers](#).

#### [Formatting the CSV file](#)

The print server name and the domain of the respective server has to be defined in the first two columns. Subsequently, any number of printers can follow. It is important to ensure that there is a sufficient

number of columns for printers.

#### Format

```
PrintServer;Domain;Printer1;...;Printer[n]
```

#### Description of the columns:

1. PrintServer: Name of print server or computer
2. Domain: Name of domain
3. Printer[n]: Indicates the printer on the print server (Information can also be given without complete UNC path)

#### Example for CSV file with complete UNC path

```
PrintServer;Domain;Printer1;Printer2;Printer3
perseus;k-is.de;\\perseus\Lexmark T642;\\perseus\Lexmark T725
pluto2;k-is.de;\\pluto2\Kyocera FS-600;\\pluto2\Kyocera FS-800;\\pluto2\Kyocera FS-900
```

#### Example for CSV file without complete UNC path

```
PrintServer;Domain;Printer1;Printer2;Printer3
perseus;k-is.de;Lexmark T642;Lexmark T725
pluto2;k-is.de;Kyocera FS-600;Kyocera FS-800;Kyocera FS-900
```

#### Note *Domain in CSV File is not Specified*

If the domain of the print server to be imported is not specified, the first computer object found in the domain trust will be used.

#### Note *Adjustment of the Print Server Role*

By default, an imported print server is arranged and displayed as a local print server in the **steadyPRINT Center**. By changing the **print server role** via **settings** in the **print server view**, you can convert it into a normal print server and have it displayed in the tree under print server.

## 7.6.2 Importing Printer Assignments from CSV File

Apart from the procedure described in chapter [Printer Assignment](#), the **steadyPRINT Center** also offers the function of importing printer assignments via a CSV file. Specify the file to be imported via **Printing Environment > Management > Local Printers and Shares > Import Local Printer Assignments**.

### Formatting the CSV file

The AD object as well as its domain and the structural object class have to be defined in the first three columns. Subsequently, the default printer and the printer assignments have to be specified. It is important to ensure that there is a sufficient number of columns for the printer assignments.

#### Format

```
Principal;Domain;StructuralObjectClass;DefaultPrinter;Mapping1;...;Mapping[n]
```

#### Description of the columns:

1. Principal: Name of AD object (user login, computer or group name)
2. Domain: Name of the domain

3. StructuralObjectClass: Object class of principal (computer, group or user)
4. DefaultPrinter: Specifies the printer which is defined as default printer (0 = No default printer defined, 1 = Printer1, 2 = Printer2 etc.)
5. Mapping[n]: Specified the printer assigned to principal

#### Example of CSV file with complete UNC path

```
Principal;Domain;StructuralObjectClass;DefaultPrinter;Mapping1;...;Mapping[n]
PC001;steadyprint.com;computer;2;\\pluto2\Kyocera FS-600;\\pluto2\Kyocera FS-800
winkler;steadyprint.com;user;0;\\pluto2\Lexmark T642
Training;steadyprint.com;group;1;\\pluto2\Kyocera FS-900
```

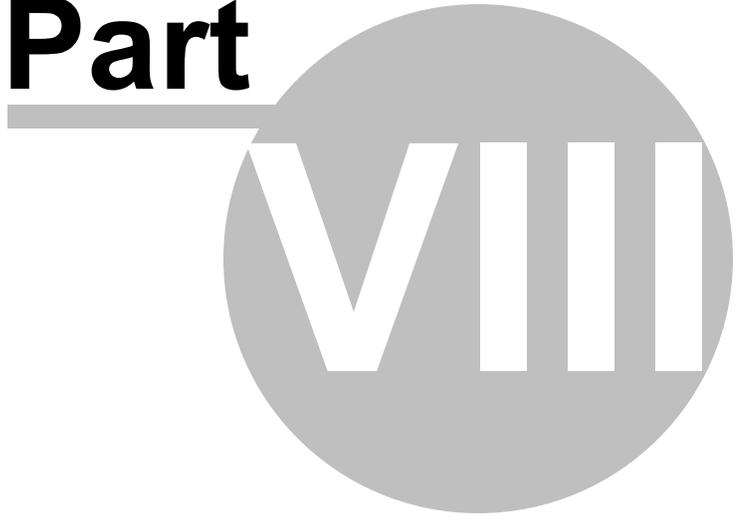
---

**Note**      ***Domain and/or StructuralObjectClass in CSV File is not Specified***

If the domain or StructuralObjectClass of the AD object to be imported is not specified, the first object found in the domain trust will be used.

Note: The combination of an empty domain and a defined StructuralObjectClass leads to a non-solvable AD object!

**Part**



## 8 Settings

To adjust the **steadyPRINT** program settings, open the **Settings** window. You will find this in the **steadyPRINT Center** via **file > settings**. Here, the management of settings of the **steadyPRINT Center**, the **steadyPRINT Agent** the **Behavior of Default Printers**, the **Dashboard and Monitoring**, the **Action- and E-mail Profiles** or even the **License** are available. Functions and settings that require a detailed explanation are described in the following sub-chapters.

### 8.1 Agent-Profiles

With the **Agent Profiles** it is possible to define user-, group- and computer-specific settings for the behavior of the **steadyPRINT Agent**. Initially, there is a „Standard“ profile providing a basic configuration for the Agent which is adjustable, but cannot be deleted or disabled. To restrict the functions for specific users, you can, for example, define a new safety profile for one group.

All profiles presented in [Figure - steadyPRINT Center - Definition of Agent profiles](#) are processed in the **steadyPRINT Agent** according to their prioritization, with **1** being of highest priority. The profile that matches the user, group or computer will be processed first.

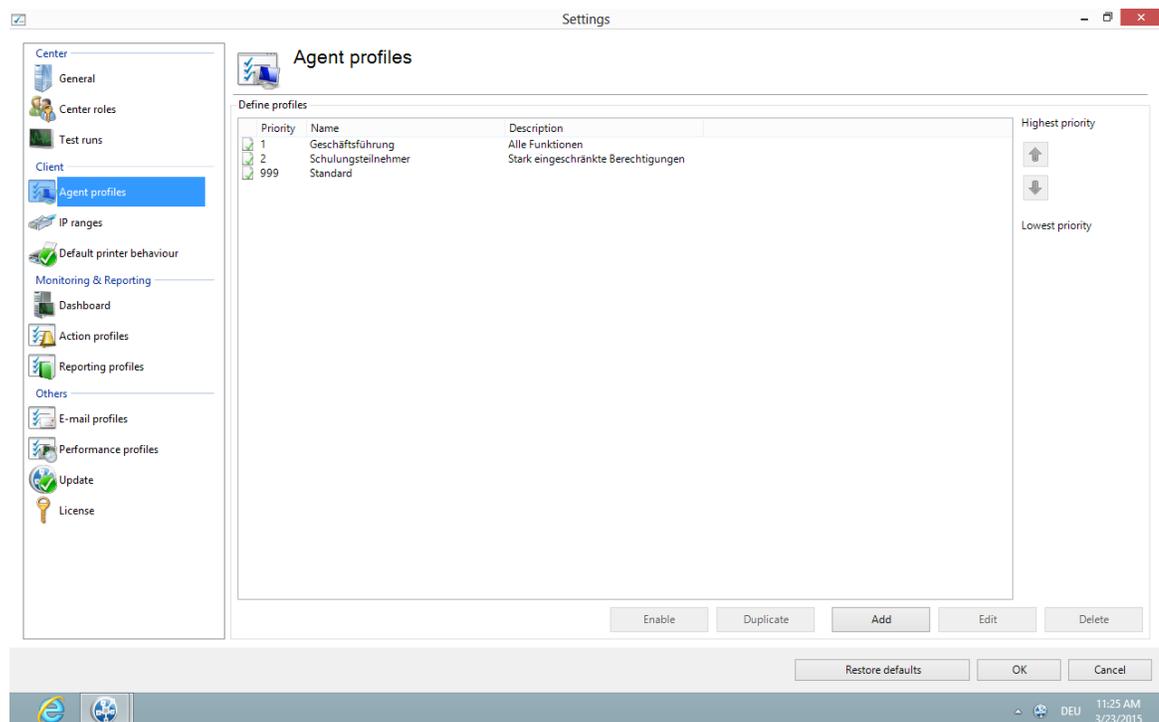


Figure 63: steadyPRINT Center - Definition of Agent profiles

The profiles defined in the **steadyPRINT Center** are loaded once at the start-up of the **steadyPRINT Agent**. New or deleted profiles as well as adjusted users, groups and computers are only processed when the Agent is restarted. When exactly which profile settings are processed is shown in the respective functional description in the profile.

## 8.2 Default Printer Performance

Under the **Default Printer Performance** category you can determine the configuration for the application order of the default printers. With the priority list you decide what type of default printer will be active in **steadyPRINT** and which one will be given priority in case of multiple connections. For instance, it is possible that for a given session one default printer has been determined for the user and another one has been determined for his computer. [Figure - steadyPRINT Center - Priority list for default printers](#) shows an example in which default printers have been enabled for users, computers, groups, folders and print servers. Moreover, the default printer for a user always has priority as in this case the user enjoys the highest priority.

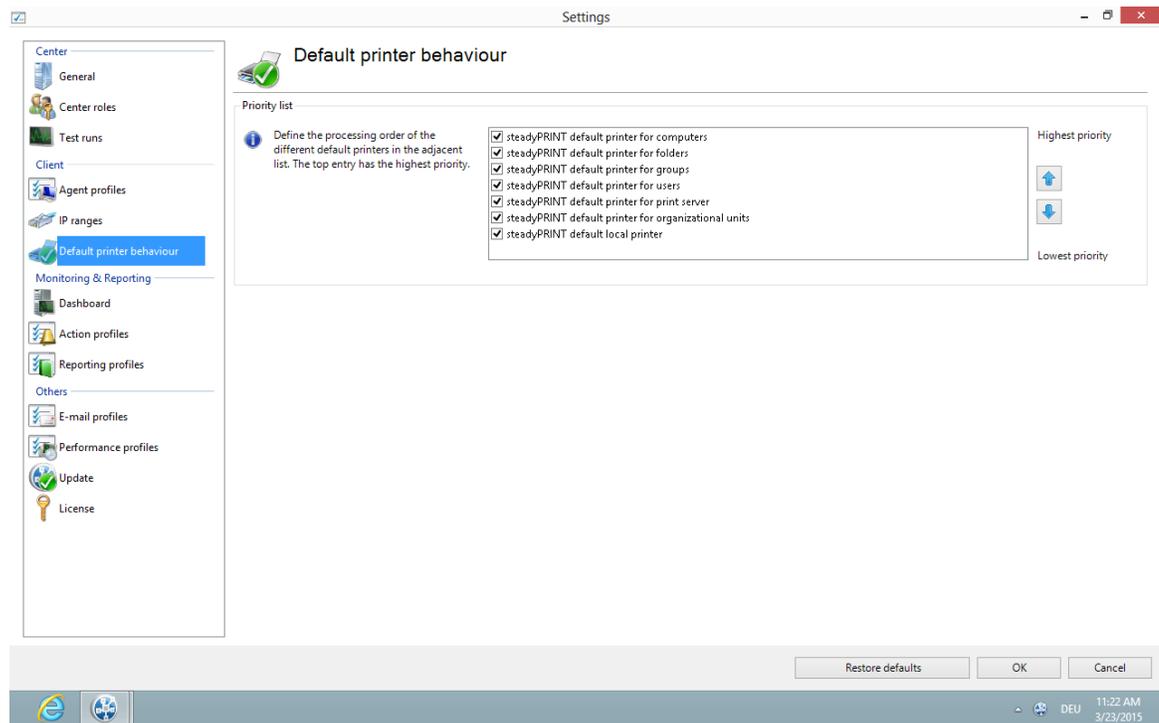


Figure 64: steadyPRINT Center – Priority list for default printers

## 8.3 Dashboard and Monitoring

Select the settings for **Dashboard and Monitoring** and specify the configuration for the Dashboard and for the inventory of local printers in the **steadyPRINT Center**.

### Dashboard

The server address indicates on which Windows Server the **steadyPRINT Webserver** is installed. By specifying the server address and the port, the **steadyPRINT Center** will be informed where to find the website for embedding the **steadyPRINT Dashboard**. Moreover, you can determine the timeout for loading the contents.

However, please note that the settings mentioned above exclusively refer to the embedded pages in the **steadyPRINT Center**. The access to the **steadyPRINT Dashboard** via the web browser remains unaffected.

## Local Printers

In the settings for local printers you determine for how long the collected information shall be held available. Moreover, here you can specify which local printer you would like to filter out of the tree view of the *steadyPRINT Center*.

## 8.4 Action Profiles

An *action profile* describes the actions and settings which are necessary to have an alert triggered by *steadyPRINT* due to an event. It is for example needed in case a printer connection is in an error state. The following [figure - steadyPRINT Center - overview of action profiles](#) shows an exemplary overview of existing profiles.

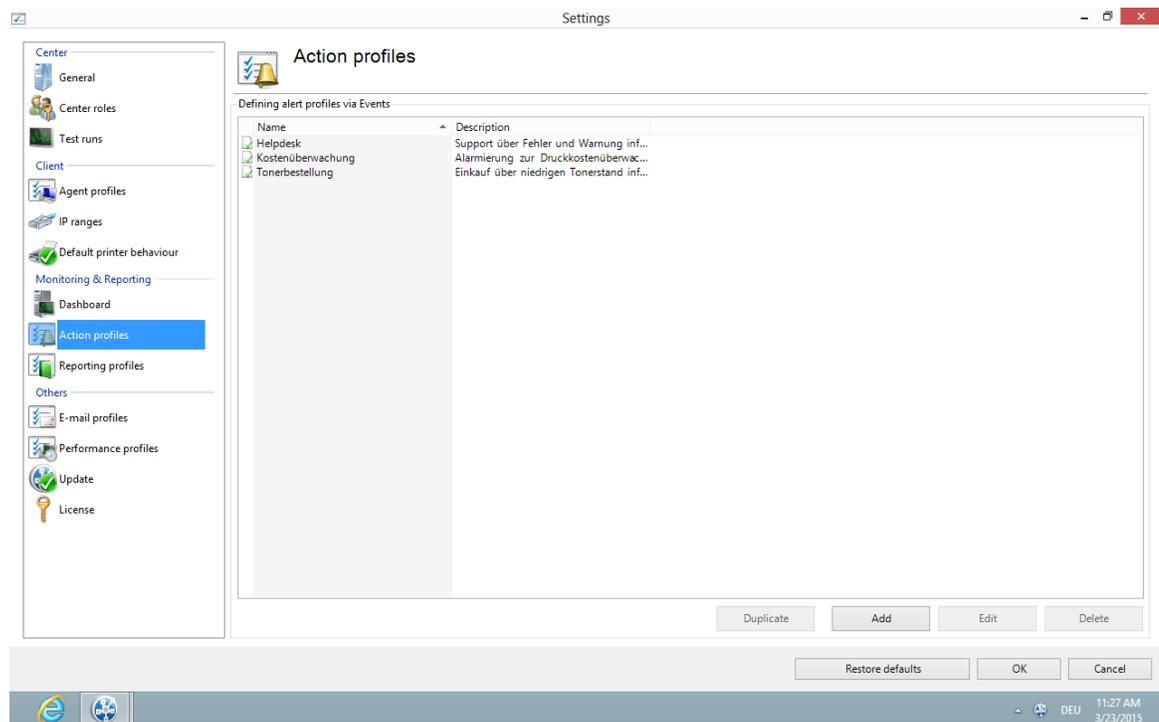


Figure 65: steadyPRINT Center - overview of action profiles

The definition of action profiles is necessary in order react to events triggered by *steadyPRINT*. The following table and [figure - steadyPRINT Center - action profile](#) describe the settings of an action profile.

Setting	Description
Name	The name of the action profile.
Description	An optional description of an action profile.
Active	If the action profile is activated, the defined settings will cause an alert.
E-mail profiles	In order to notify of an event by e-mail, link any e-mail profile to the current

	action profile.
<b>Store events in the database</b>	In case the memory is activated, <b>steadyPRINT</b> stores all occurring events into the database.  <i>Hint: The storage of events is necessary to have them displayed in the <b>steadyPRINT Dashboard!</b></i>
<b>Alerting when status is back to normal</b>	If this occurs, <b>steadyPRINT</b> sends an e-mail, provided that an e-mail profile has been stored. If the alert is enabled for the normal status, another e-mail is sent in case the measured value falls back to the defined normal status.
<b>Repetition(s) until the first alerting is triggered (fault tolerance)</b>	The fault tolerance indicates how often a measured value may leave the defined normal range without triggering an event and/or a notification.
<b>Minute(s) until the alerting is triggered again</b>	If an event occurs once, you can use this value to determine the time after which an e-mail shall be sent again.

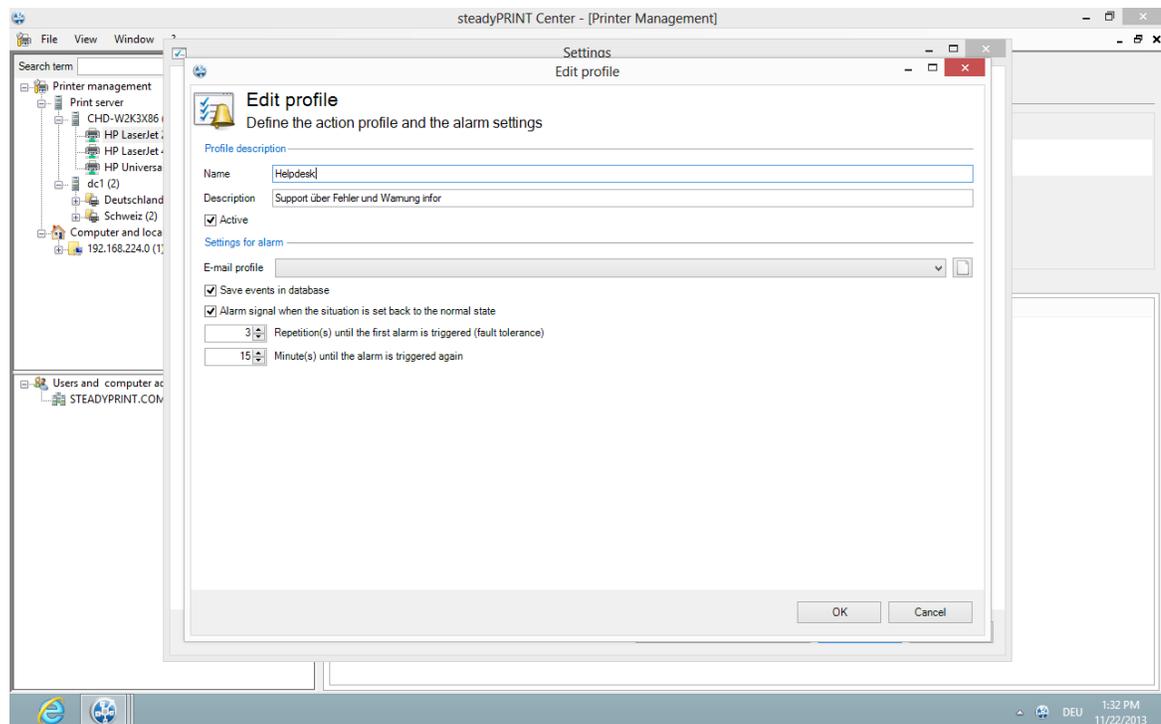


Figure 66: steadyPRINT Center - action profile

## 8.5 E-Mail Profiles

An e-mail profile describes the settings for an SMTP server to send e-mails from **steadyPRINT**. It is for example needed for notifications of events related to a printer. The following [figure - steadyPRINT Center - overview of e-mail profiles](#) shows some examples of existing profiles.

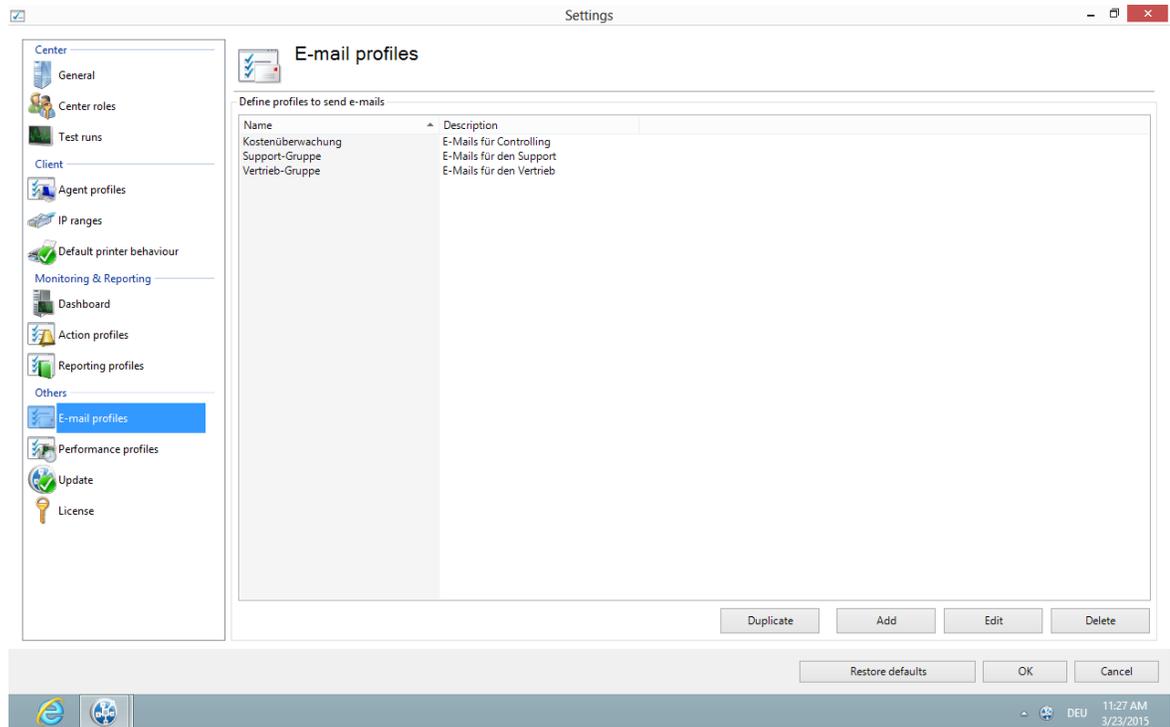


Figure 67: steadyPRINT Center - overview of e-mail profiles

For sending e-mails, **steadyPRINT** requires some specifications which are to be noted in a profile. The following [figure - steadyPRINT Center - e-mail profiles](#) shows an example in which the user wants to send an e-mail from the address [noreply@steadyprint.com](mailto:noreply@steadyprint.com) to the address [support@steadyprint.com](mailto:support@steadyprint.com). The Server with the DNS name [exchange.steadyprint.com](https://exchange.steadyprint.com) shall be used as **SMTP Server**.

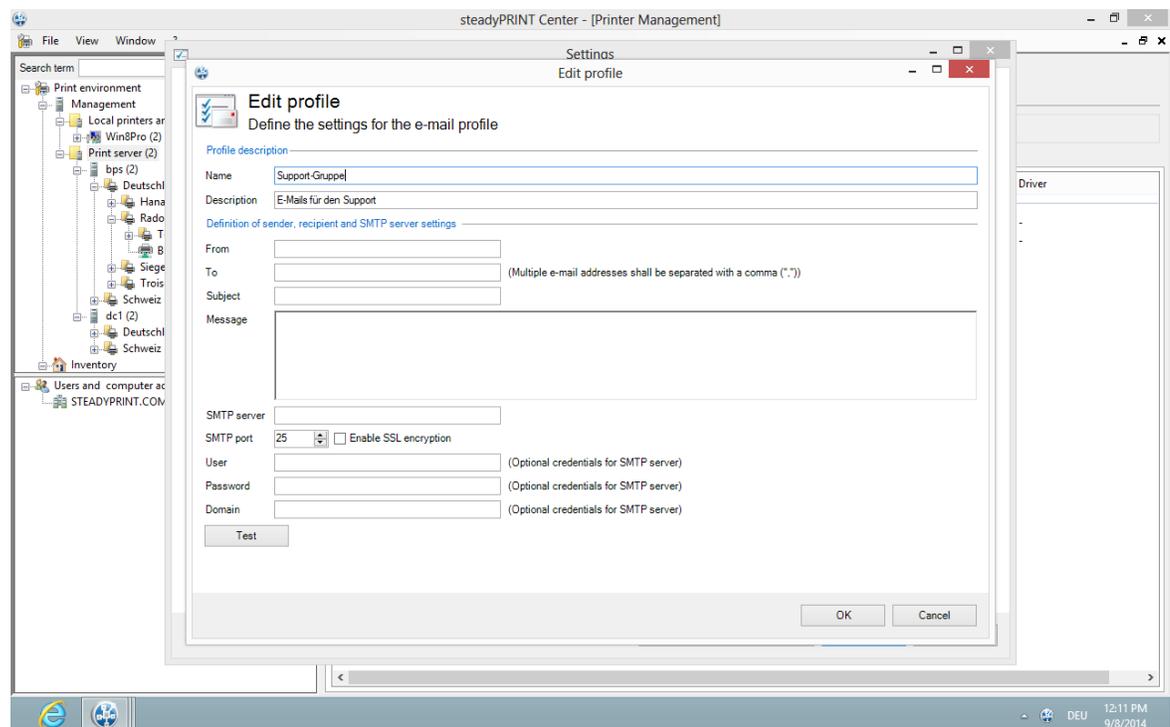


Figure 68: steadyPRINT Center - e-mail profiles

<b>Tip</b>	<p><b>Environment Variables in Message</b></p> <p>Use Windows environment variables to understand the message with dynamic information.</p> <p>Example: A message from user %USERNAME% in domain %USERDOMAIN%.</p>
------------	--

## 8.6 Performance-Profile

The performance profiles enable the configuration of time-related components of the *steadyPRINT Agent* and the *steadyPRINT Service*. Initially, there is a „default“-profile providing a basic configuration for the Agent and Service. It is adjustable, but it cannot be disabled or deleted. In order to restrict the respective configuration to special IP addresses, a new performance profile could be defined for a separate IP range.

All profiles from [Figure - steadyPRINT Center - definition of performance profiles](#) are processed in the *steadyPRINT Agent* and the *steadyPRINT Service* according to their prioritization with *1* being of highest priority. In doing so, the profile which, due to the IP address of the computer, matches the defined IP address range will be processed first.

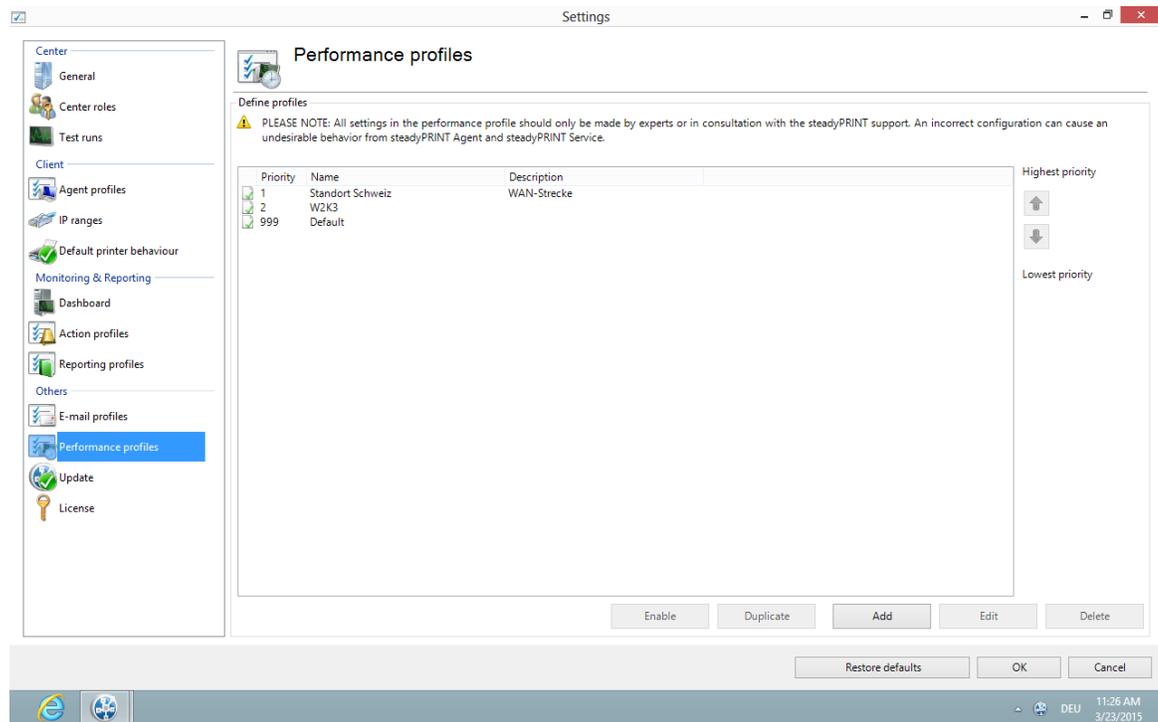


Figure 69: steadyPRINT Center - definition of performance profiles

All profiles defined in the *steadyPRINT Center* are loaded once at the start-up of the *steadyPRINT Agent* and the *steadyPRINT Service*. New or deleted profiles as well as adjusted IP address ranges are only processed when the program is restarted. When exactly which profile settings are processed is

shown in the respective description in the profile.

#### Note

#### **WAN-Connections and Performance-Profile**

The performance profiles have especially been developed for the use of **steadyPRINT** in the WAN connection area. This feature allows you to determine how often the **steadyPRINT Agent** and the **steadyPRINT Service** look for new information in the **steadyPRINT Database**. The longer the interval for the respective time-related components lasts, the smaller is the load on the WAN connections. However, please note that dependent on the defined profile values, any modified information might be available on the Client computer with a delay.

#### Warning

#### **Configuration Performance-Profile - Expert Knowledge Required**

All settings in the performance profile should only be handled by experts or in consultation with the **steadyPRINT Support**. An incorrect configuration can generate an undesired behavior of the **steadyPRINT Agent** and the **steadyPRINT Service**.

### Nested Groups

From version 5.1.0 on, **steadyPRINT** supports the resolution of nested groups and recursive organizational units which is applied when evaluating Agent profiles as well as assigning printers.

By default, the resolution of nested groups and recursive organizational units is disabled. The respective activation is done via the options

- Active Directory: Evaluation of nested distribution and safety groups,
- Active Directory: Evaluation of nested safety groups and
- Active Directory: Recursive evaluation of organizational units

in the respective performance profile.

## 8.7 Reporting Profile 5.2

You will find your profiles for the automated sending and/or saving of reports under **Report Profiles**. Here, you have the option to create different reports which will automatically be sent and/or saved at defined intervals.

Several profiles can be created which are run on the configured **steadyPRINT Servers**.

A new profile can be created via **Add**. An already existing profile can be copied by clicking **Duplicate** or adjusted via **Edit**. By clicking **Delete**, the profile is removed. (See figure [Overview of reporting profiles](#)).

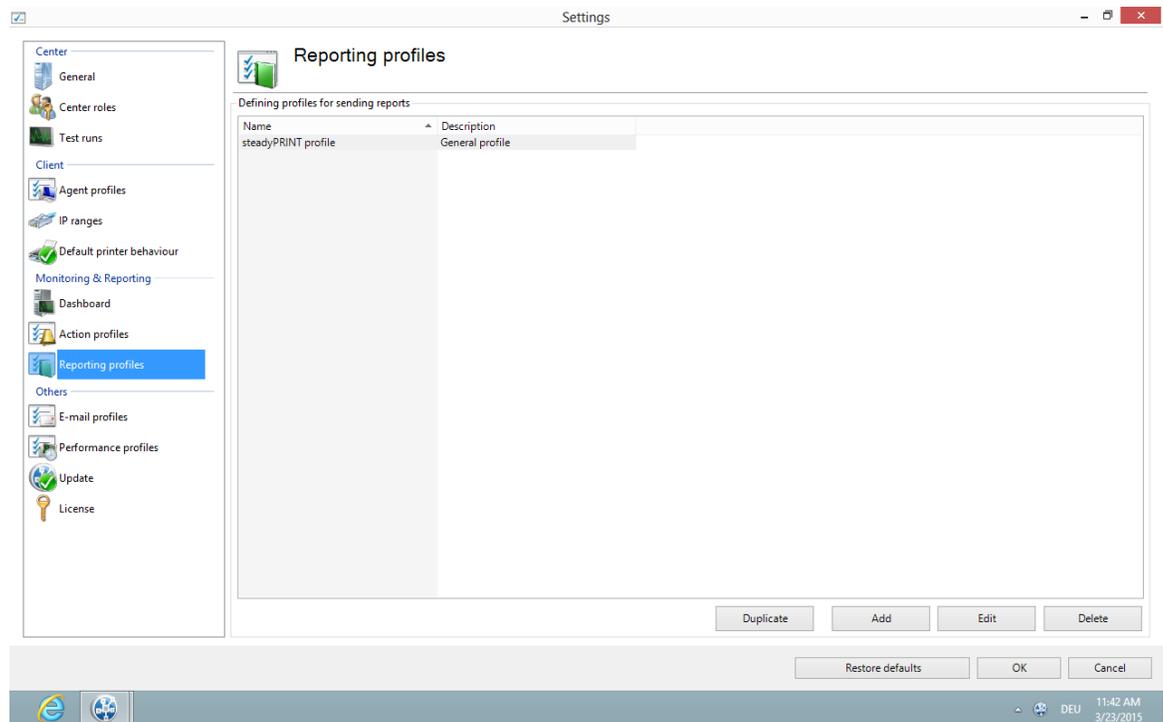


Figure 70: Overview of reporting profiles

## Create a new Profile

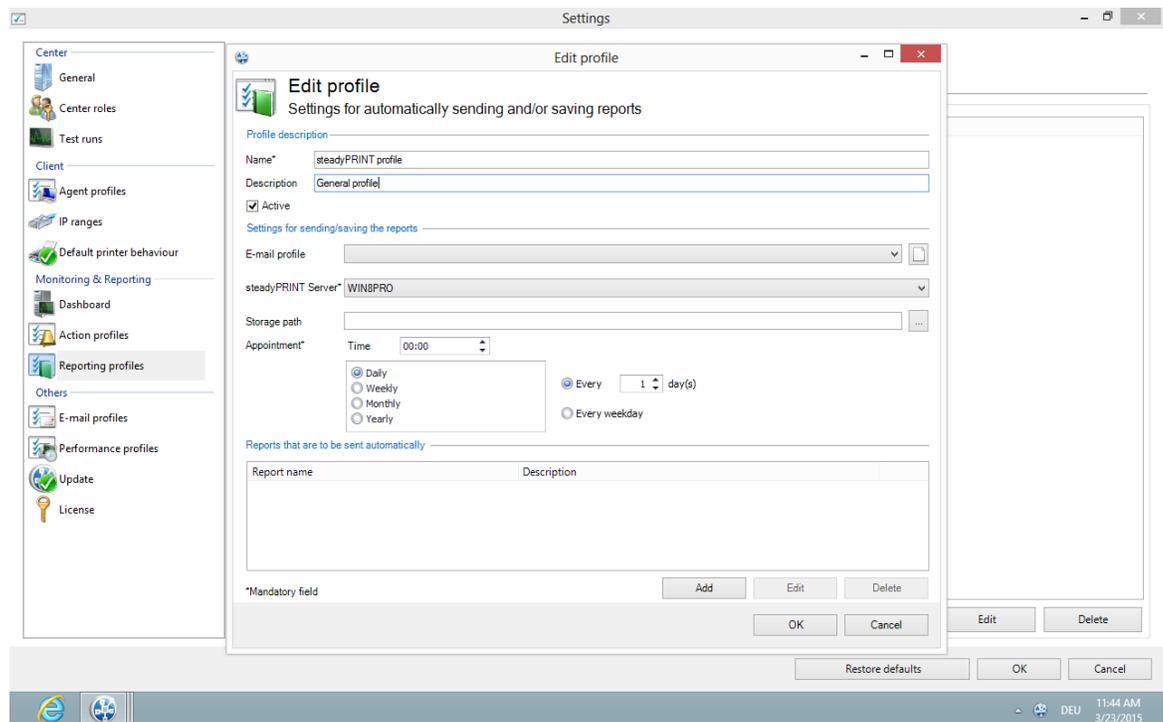


Figure 71: Create a reporting profile

A [Reporting Profile](#) contains some mandatory fields that have to be filled. Those fields are marked with a \*. (See figure [Create a reporting profile](#)).

---

**Important** *Saving the Profile*

By clicking OK, the adjustments are saved.

**Profile description:**

Use the mandatory field [Name](#) to give the reporting profile a name. This name does not have to be unique.

The field [Description](#) describes the reporting profile.

The check box [Active](#) enables or disables this profile.

**The settings for sending/saving the reports:**

The selection list [E-Mail Profile](#) specifies which e-mail profile shall be used for sending reports. If the reports are only to be saved, this field can be left blank.

Via the [Edit](#) button next to the selection list, the e-mail profiles can be edited or new ones can be added.

The selection list [steadyPRINT Server](#) is a mandatory field that specifies on which server the automatic reporting is to be created. This is especially interesting when the automatic reporting is installed at different locations with different authorizations, e.g. to the memory shares.

The field [Storage Path](#) indicates where the reports are to be stored. This can be a share or a local path on the server. If this field is left blank, the reports will not be stored but only sent.

---

**Important** *Send or save*

Either the e-mail profile or the storage path has to be indicated.

The mandatory field [Date](#) indicates at which time the automated reporting is to be created. First, a certain time has to be chosen.

Then you can select whether this time should be on a daily, weekly, monthly or annual basis. Each selection presents a further selection for a certain point in time or day. This selection is similar to the Outlook appointment series.

**Reports which are to be sent/saved automatically:** (See figure [Adding a report to the reporting profile](#))

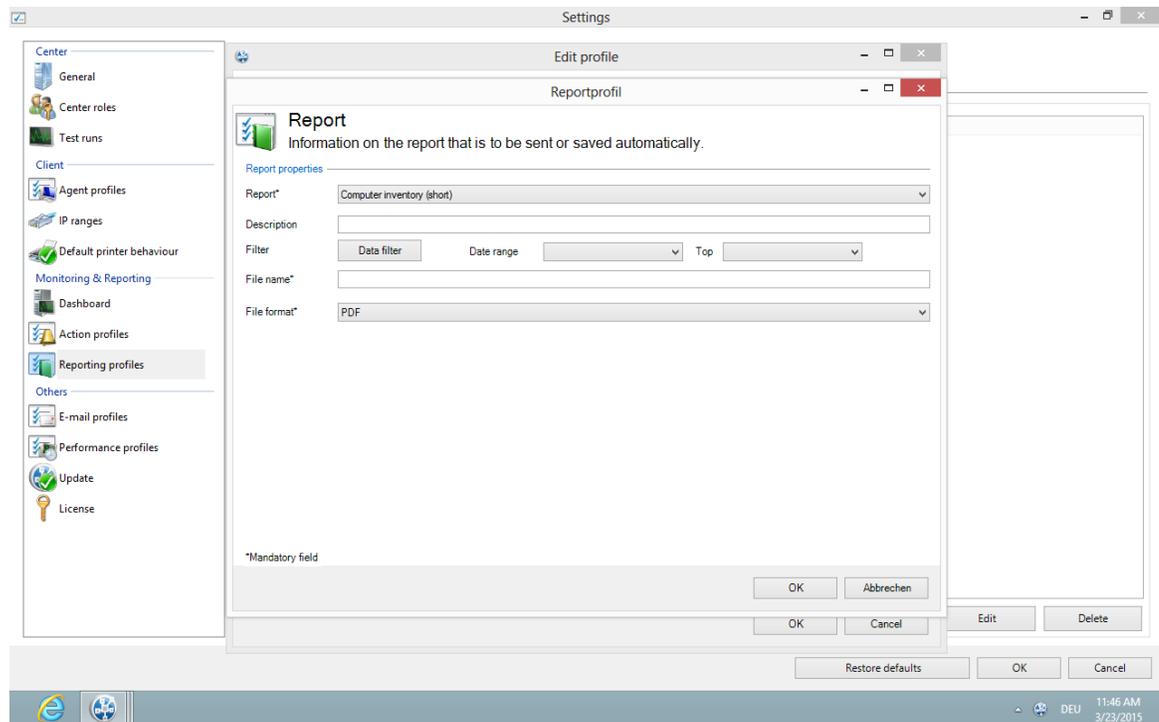


Figure 72: Adding a report to the reporting profile

With the mandatory field [Report](#) you select the report which is to be sent and/or saved.

The field [Description](#) contains a description text of the report.

The data can also be filtered, as in the [steadyPRINT Reporting](#). It is possible to filter the data by the data filter or a date range. Even the top-selection is possible.

The mandatory field [File Name](#) indicates the name of the file which is to be saved and/or attached to the e-mail.

The mandatory field [File Format](#) indicates the format of the file.

The button [OK](#) imports the setting for the report.

## 8.8 Update

For more information on update settings, please refer to chapter [Automatic Update](#).

## 8.9 License

The [License](#) category allows you to see, request, activate and import the [steadyPRINT](#) license.

### Activate and Import License

For activating the license, the [steadyPRINT team](#) needs a key generated by the [steadyPRINT Center](#). Proceed as follows in order to activate the license you purchased.

### Step 1 - Request license

Copy the complete content from the text field of [Step 1](#) into an e-mail and send it to [support@k-is.com](mailto:support@k-is.com). Furthermore, please fill in the pre-defined placeholders for a simple identification of your request. After receipt of the request, you will receive an answer from the *steadyPRINT team* including the necessary license activation code.

### Step 2 - Import license

Copy the complete content from the return mail of the *steadyPRINT team* into the input field of [Step 2](#). The activation code indicated in the e-mail is verified by the steadyPRINT Center and the purchased license is finally activated - for this purpose press **Activate**. In case the license file has been forwarded in [xml-format](#), it can be imported via **Import License File**.

Then you receive a message on whether the license was identified as being valid. The shared features and print servers can be viewed in the license overview.

Note	License Volume
	Please note that the number of licensed objects must not exceed the license volume. Otherwise the license will be identified as invalid.  For questions concerning licensing, please contact the <i>steadyPRINT-Support</i> (see Chapter <a href="#">Support</a> ).

Note	Activate Demo
	On the first start, the <i>steadyPRINT Center</i> asks whether you wish to activate the <a href="#">demo mode for 30 days</a> or import a purchased license. To proceed, choose between those two options.  For questions concerning licensing, please contact the <i>steadyPRINT-Support</i> (see Chapter <a href="#">Support</a> ).

## 8.10 Test Run Settings

With *steadyPRINT* version 5, test runs were integrated into the environment for the first time.

As of version 5.2, it is now possible to make adjustments to this test runs.

These settings can be accessed via the setup menu (see figure [Availability of the settings](#)) (or F8).

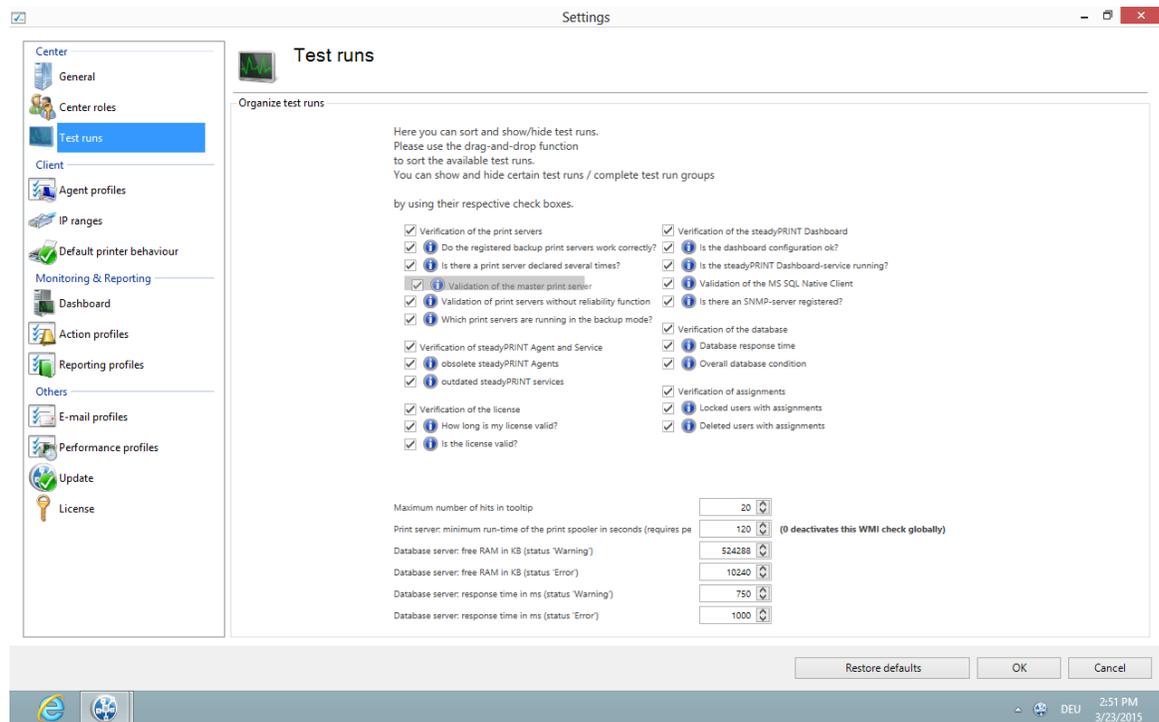


Figure 73: Availability of the settings

Dependent on your licensing, a certain number of test runs are available which can be freely sorted and shown/hidden.

In order to rearrange test runs or complete groups, please use the [Drag & Drop](#) function (see figures [Move by drag & drop](#)). Groups and test runs can be shown or hidden by means of the respective check boxes.

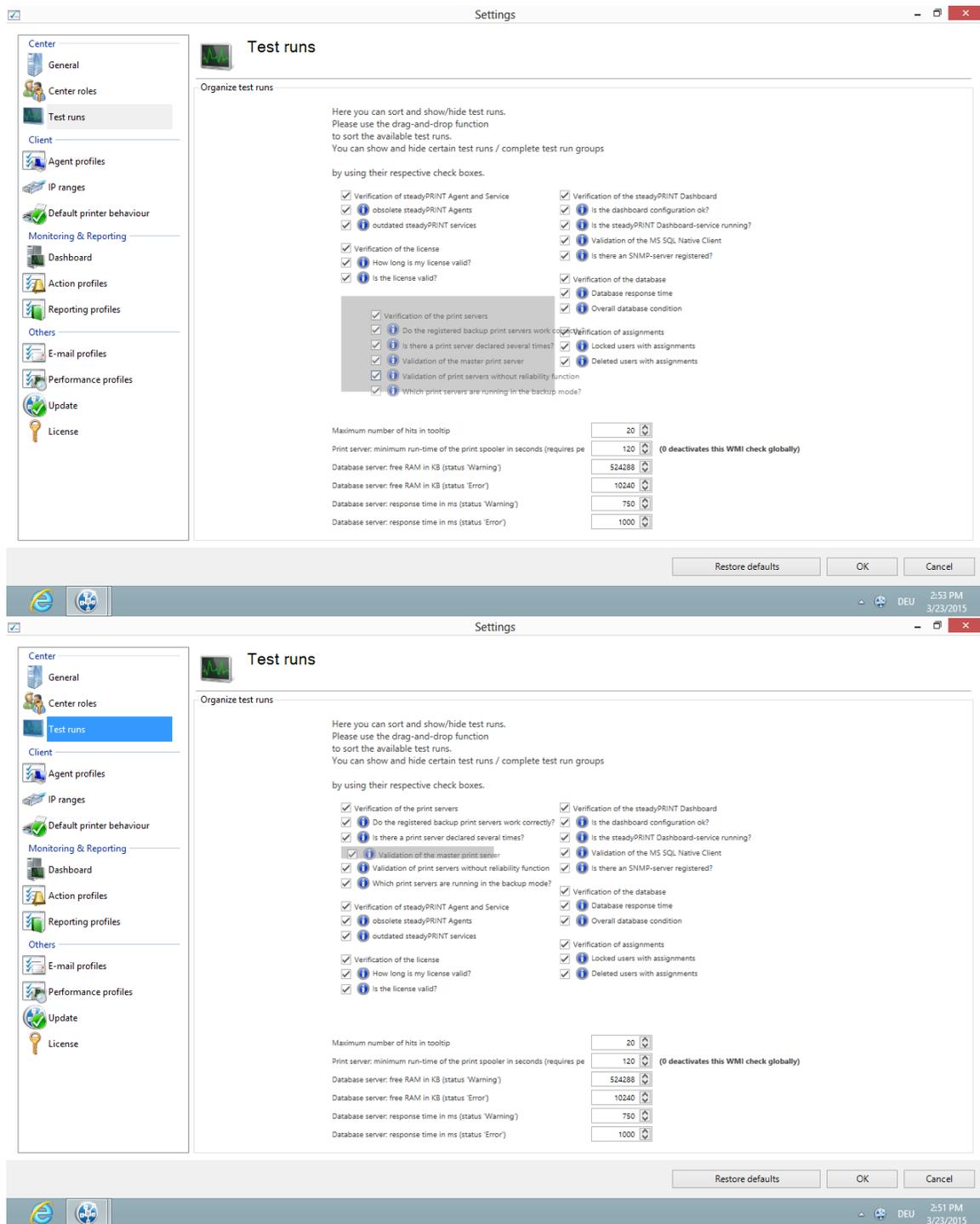


Figure 74: Move by drag & drop

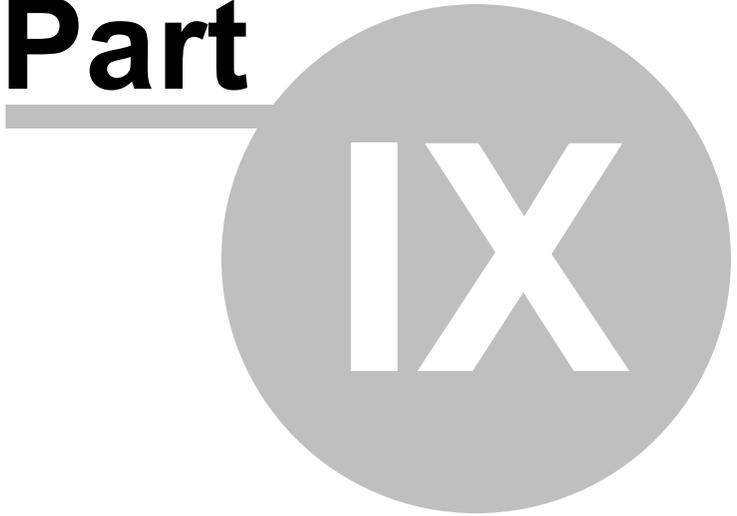
Below the test runs, you will find settings which might be extended to several test runs and partly have effect to the whole environment (see figure [General settings](#)).

Maximum number of hits in tooltip	20	
Print server: minimum run-time of the print spooler in seconds (requires pe	120	(0 deactivates this WMI check globally)
Database server: free RAM in KB (status 'Warning')	524288	
Database server: free RAM in KB (status 'Error')	10240	
Database server: response time in ms (status 'Warning')	750	
Database server: response time in ms (status 'Error')	1000	

**Figure 75: General settings**

1. Maximum number of hits in tooltip: Defines the maximum number of error sources displayed in the tooltip of a failed test run.
2. Print server: Minimum runtime of the print spooler in seconds -> See [Warning Up Time of Print Spooler](#)
3. Database server: Free RAM in kb (warning) -> defines the value as of which the test run for identifying the state of the database is declared as a warning due to low working memory.
4. Database server: Free RAM in kb (error) -> defines the value as of which the test run for identifying the state of the database is declare as an error due to low working memory.
5. Database server: Response time in ms (warning) -> defines the value as of which the test run for identifying the state of the database is declared as a warning due to an inadequate reaction time.
6. Database server: Response time in ms (error) -> defines the value as of which the test run for identifying the state of the database is declared as an error due to an inadequate response time.

**Part**



## 9 Printer Administration for Users

The **steadyPRINT** functions shown and described so far have been presented from a server-side, administrative perspective. We would like to show you the following additional client-side printer administration functions that **steadyPRINT** is able to offer.

The **steadyPRINT Agent** offers special functions for printer administration that can be carried out by the user. The following [figure - steadyPRINT Agent - main window](#) shows the main window intended for the user.

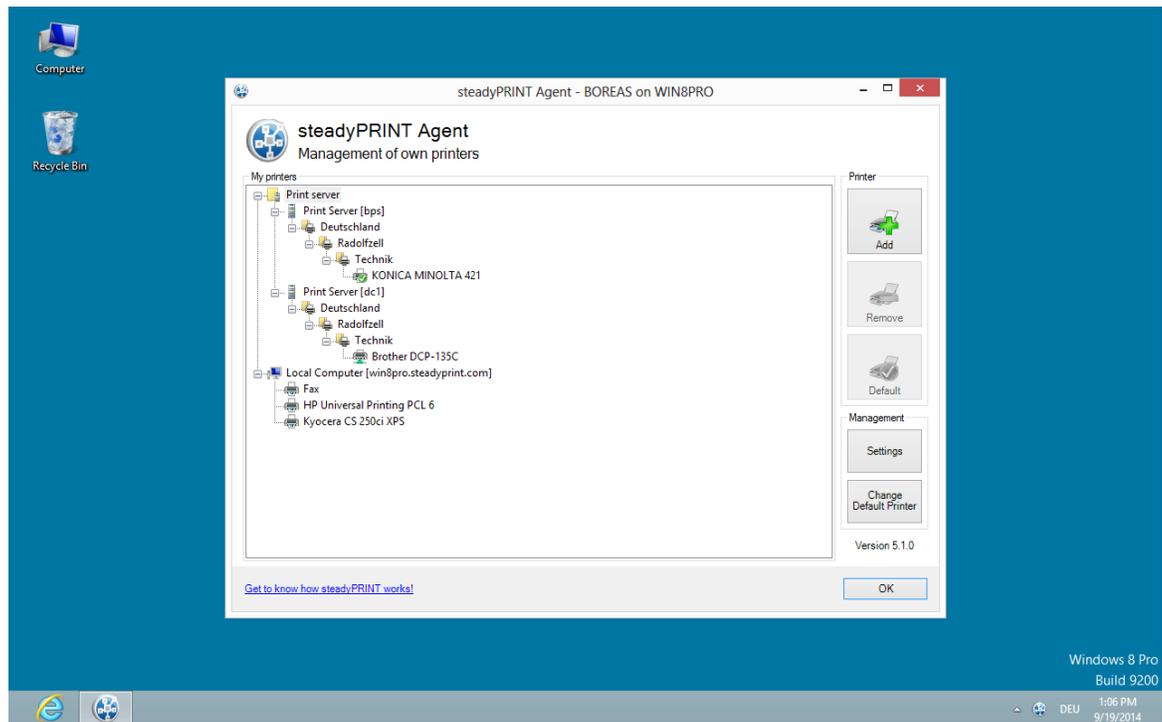


Figure 76: steadyPRINT Agent – main window

In the following table you will find all functions that are available to the user on the client side:

Function	Description
Add	The <b>Add</b> button allows the user to add network printers administered by <b>steadyPRINT</b> .
Remove	The <b>Remove</b> button allows the user to remove network printers administered by <b>steadyPRINT</b> . This only applies to network printers which have been connected per <b>user-based</b> assignment. If the printer in question has been connected per <b>Group or Computer Assignments</b> , the user cannot remove this network printer.
Set Default Printer	The <b>Default</b> button allows the user to set a printer as a default printer.

<b>Settings</b>	This allows the user to enable (disable) the notification window and the taskbar icons as well as to set the language.
<b>Change Default Printer</b>	Enables the change of the default printer for a site where the user is located. The site mapping is located in the <b>steadyPRINT</b> 's folder structure.
<b>Open Windows Printer Directory</b>	Using the local computer's context menu, the user can open the Windows Printer Directory. Alternatively, it is also possible to open it using the tray icon in the taskbar.
<b>Print Jobs</b>	The user can use the context menu of the respective printer to open the print queue.
<b>Set as Default Printer</b>	The user can use the context menu of the respective printer to designate it as default printer.
<b>Printer Properties</b>	The user can use the context menu of the respective printer to open its properties.
<b>Printer Description and Status Information</b>	<p>When the user holds the mouse cursor over a particular printer, an additional description and the current status information of the device is displayed. In addition, the status is signaled with a symbol.</p> <p>If <b>steadyPRINT</b> ascertains an error for a particular device, the user can independently determine by using the status information if a paper jam has occurred, for instance, or if the toner needs to be replaced.</p>
<b>Open steadyPRINT Agent</b>	Using the tray icon in the task bar you can open the <b>steadyPRINT Agent</b> . Alternatively, you can also double-click on the Agent symbol.
<b>Reconnecting Printers</b>	Using the context menu in the <b>steadyPRINT Agent</b> main window and tray icon, the user can manually reconnect printers.
<b>Open User Manual</b>	Opens the <b>steadyPRINT Agent</b> User Manual.
<b>Support</b>	Opens the support window with useful information for the administrator on the current configuration of the <b>steadyPRINT Agent</b> .
<b>Terminate</b>	You can stop the <b>steadyPRINT Agent</b> by using the tray icon in the task bar.

A short explanation of the functions and handling of the **steadyPRINT Agent** is available for users as a handout on the homepage [www.steadyPRINT.com](http://www.steadyPRINT.com). You can download it for use as a PDF file.

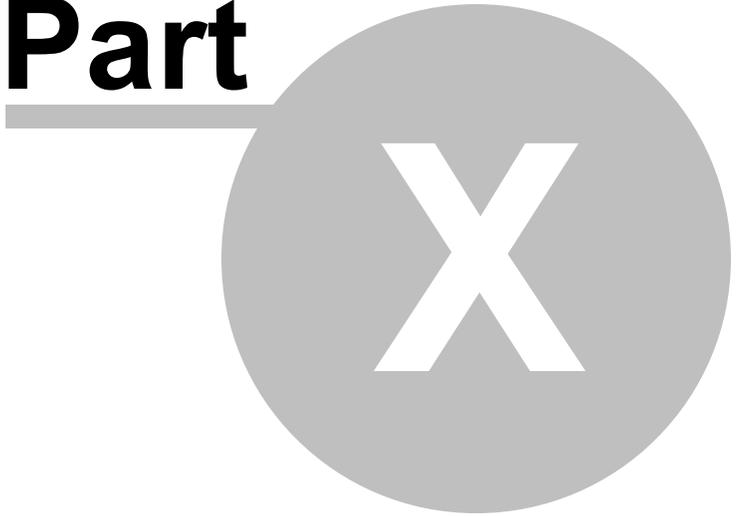
### Changes of the printer assignment by Administrator

At each start and in a defined interval (adjustable via performance profiles), the **steadyPRINT Agent** checks the changes to the printer connections. In addition, the **steadyPRINT Center** sends push notifications to the respective Clients when printer assignments are added or the detail window of the Active Directory is modified by the administrator.

**Note**     ***Push Notifications***

By default, the push notifications use [8009](#). This can be modified via the settings in the [steadyPRINT Center](#).

**Part**



## 10 Support

Our customer service will gladly assist you with technical problems occurring during the installation or use of **steadyPRINT**.

This naturally also includes any possible errors with **steadyPRINT** when operating under various IT-system environments.

You can always reach our [Support](#) during business hours between 9:00 and 18:00 at [0271/31370-30](tel:02713137030). Should you have concluded a special maintenance contract with us, please use the telephone number indicated in your contract.

Alternatively, you have the possibility of reaching us around the clock per email. Our service staff will contact you as soon as possible during our support hours. To reach us, please use the email address [support@k-is.com](mailto:support@k-is.com).

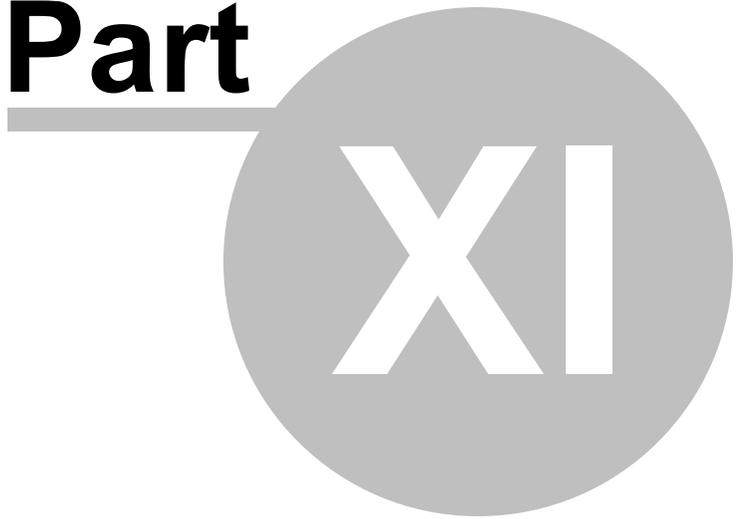
Please also use our [Support Search](#) function for frequently asked questions and technical problem solutions on the **steadyPRINT** website at [www.steadyPRINT.com/support](http://www.steadyPRINT.com/support).

For further information about the **steadyPRINT** product, visit our website at [www.steadyPRINT.com](http://www.steadyPRINT.com).

### *FAQs and Technical Problem Solutions*

A well-engineered architecture and easily applicable modules make it possible for you quickly and efficiently deploy **steadyPRINT** in your printer environment. Should you have problems with **steadyPRINT**, you will find technical help here. Alternatively, you can use the [Support Search](#) function on the **steadyPRINT** website at [www.steadyPRINT.com/support](http://www.steadyPRINT.com/support).

**Part**



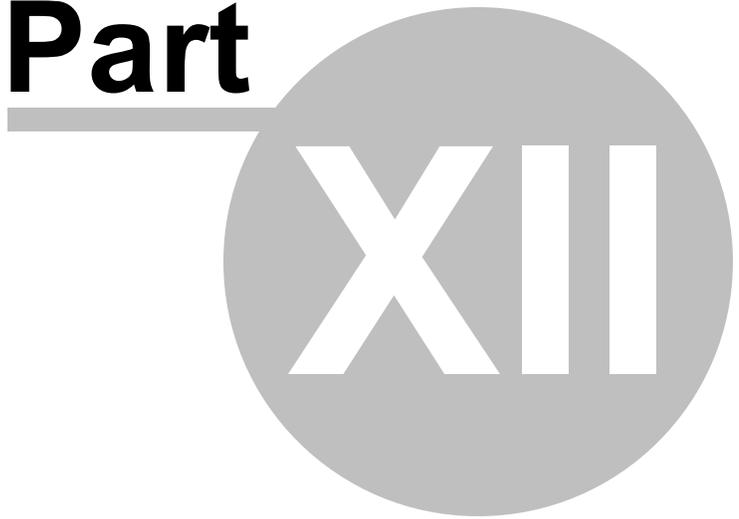
## 11 Contact

For more information on **steadyPRINT**, please contact our sales team. Click [here](#) for the right contact person.

All support-requests can be placed with our support-team. Click [here](#) for more details.

Please also visit our homepage under <http://www.steadyPRINT.com> for more detailed information on **steadyPRINT**.

**Part**



**XII**

## 12 Annex

### 12.1 Warming Up Time of Print Spooler

#### General

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During the print spooler check, it is tried - with the help of a WMI query - to test the runtime of the print spooler, i.e. how long the print queue is already running.

#### Background

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With regard to the reliability function (above all in large environments where terminal landscapes are used) it might be the case that the print spooler needs a longer time to load all printers. In the past, this led to the fact that when switching back to the master print server the print spooler was not yet completely booted up although marked as active in the [steadyPRINT Center](#). Thus, the master print server, having been switched active by the user, immediately fell back to the error state due to the problems mentioned above.

This problem is absorbed by the new warming up time of the print spooler.

#### Restrictions in Authorization

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In order to perform such a WMI query, the user has to be registered as administrator on the server to be checked.

#### Functionality

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The user is entitled to perform this WMI query on the print server.

The print spooler will be marked as active only after 2 minutes.

The user is **not** entitled to perform this WMI query on the print server.

The runtime of the print spooler is ignored during the test.

#### Settings Options

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In case you require an adjustment to the minimum runtime of the print spooler, please contact the [steadyPRINT](#) support.

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