



Instructions for  
docuFORM  
Global Printer Driver V3.x  
for Standard and Encrypted  
Printing in Mercury OMS

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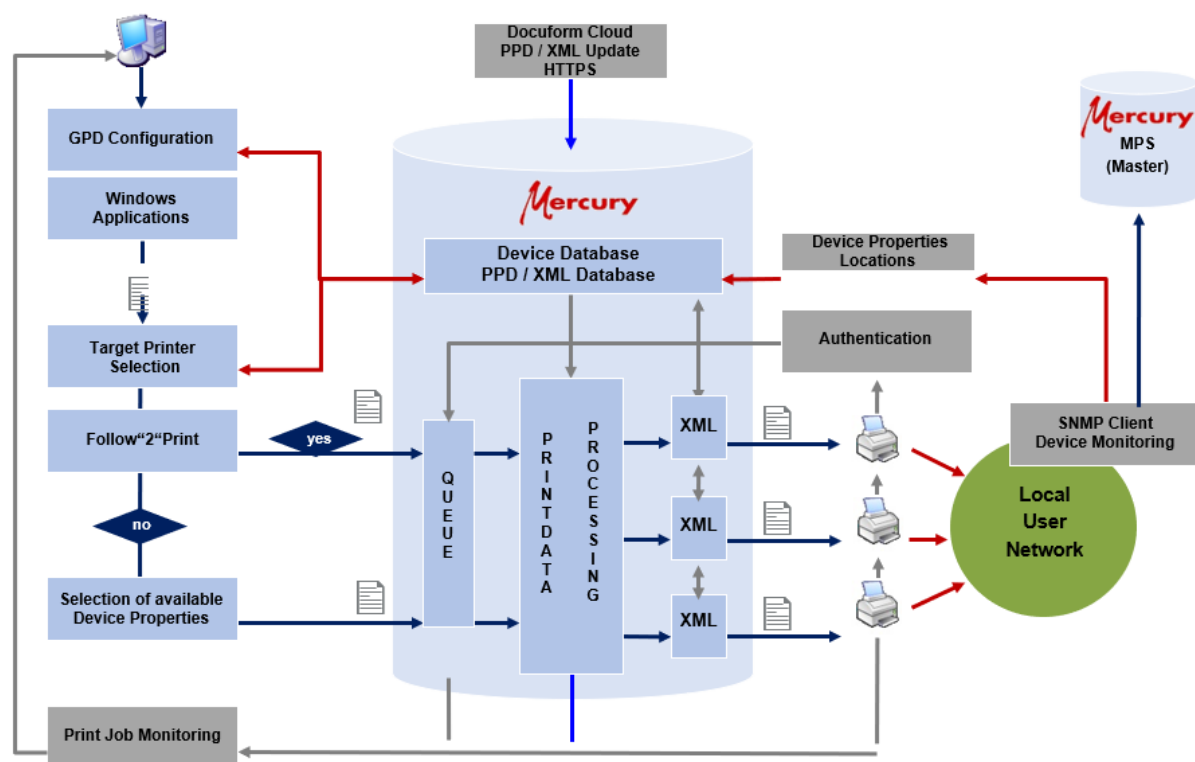
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# 1 Introduction

The Global Printer Driver (GPD) from docuFORM enables cross-manufacturer and independent printing from Microsoft Windows applications to PostScript-enabled output systems, without the need for one or more specific printer drivers. For the user, this means costly administration of printer drivers, their updates and the use of a Microsoft print server are no longer necessary. At the same time, optimal printout on all Postscript-capable output devices is guaranteed at all times.

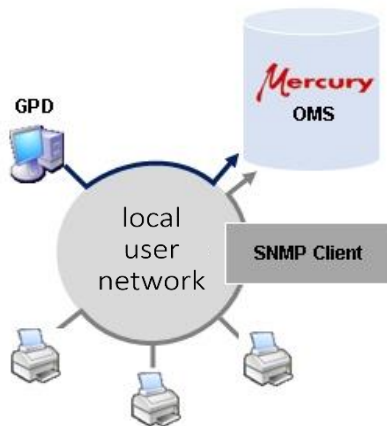
Encrypted printing, a PDF workflow, optional Follow "2" Print functionality as well as cross-manufacturer PIN printing are also integrated. In addition, an index server ensures network-wide distribution of print jobs as well as user-driven global cloud printing via mobile devices. The combination of these functionalities in one product represents the unique selling point of this solution worldwide.

The solution consists of three components. In addition, the Mercury OMS server is the core piece. In addition, an SNMP client is installed in the network, which collects all device information in real time, updates it at any time and enters it into the Mercury database. MSI then rolls out the docuFORM GPD as the third module at each workstation. With the installation of these three components, printing can be carried out in the user network successfully and optimally without any additional steps.

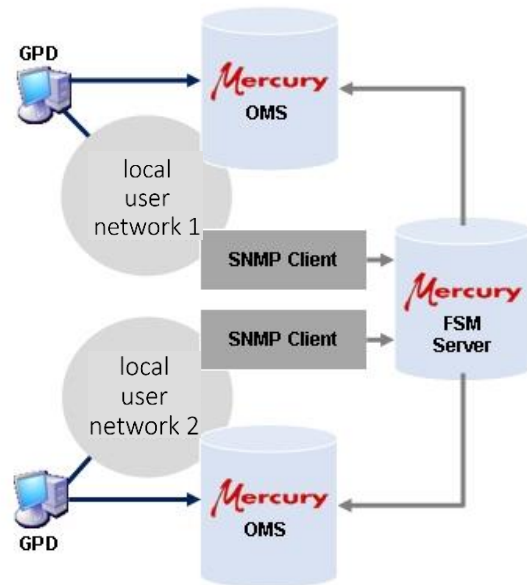


The system is maintenance-free and self-learning for the user as it adapts to the current device landscape in the network at any time and the required XML files are provided centrally and continuously updated by docuFORM.

The docuFORM Global Printer Driver always works with the Mercury Output Management Software (OMS) and can be operated either with the docuFORM Fleet & Service Management (FSM) software (right-hand image), or together with the docuFORM SNMP Capture Client software (left-hand image).



GPD installation with Mercury and SNMP Client



GPD installation with Mercury and FSM Server

***Please note that the correct operation and use of all features of the GPD requires the installation of the Mercury OMS and Fleet & Service Management FSM software version associated with each GPD version. For more information, see the GPD Release History. In addition, to use some features of the GPD, you may need to purchase and license additional Mercury modules.***

## 2 Installing the docuFORM Global Printer Driver

To install the docuFORM GPD on 32 or 64-bit Windows operating systems there are two independent installation packages available:

- GPDinst\_de32.msi
- GPDinst\_de64.msi

The installation packages can be installed on Microsoft Windows 7, 8, 8.1 or Windows 10 systems and are currently available in German and English.

Note: The docuFORM GPD can also be installed in virtual environments. For correct operation of the print order overview application, however, the network of the virtual

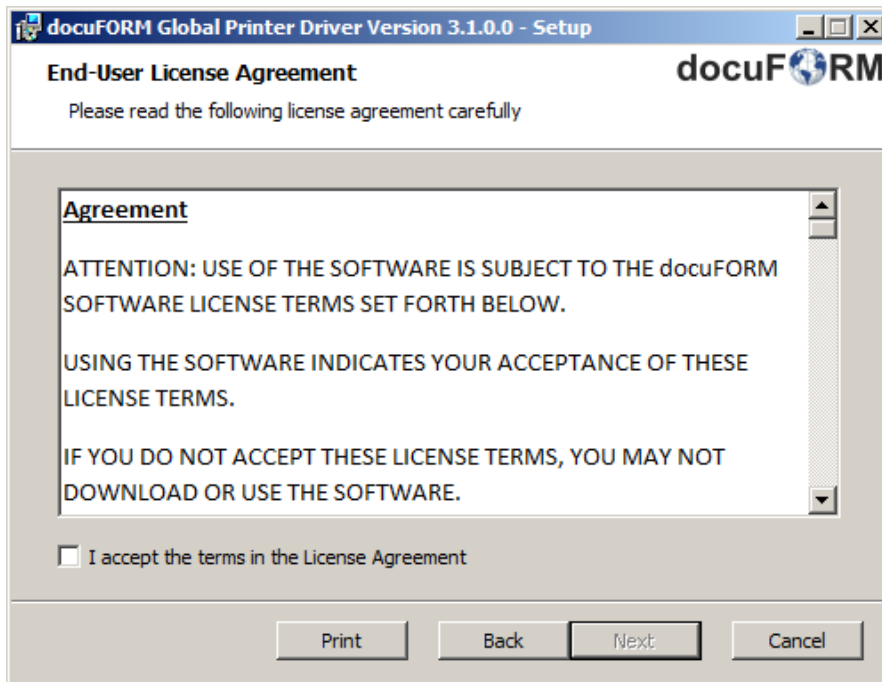
environment must be set to "bridging" or "network bridge".

To install the docuFORM GPD, the corresponding installation package must be executed. A wizard guides you through the installation of the docuFORM GPD.

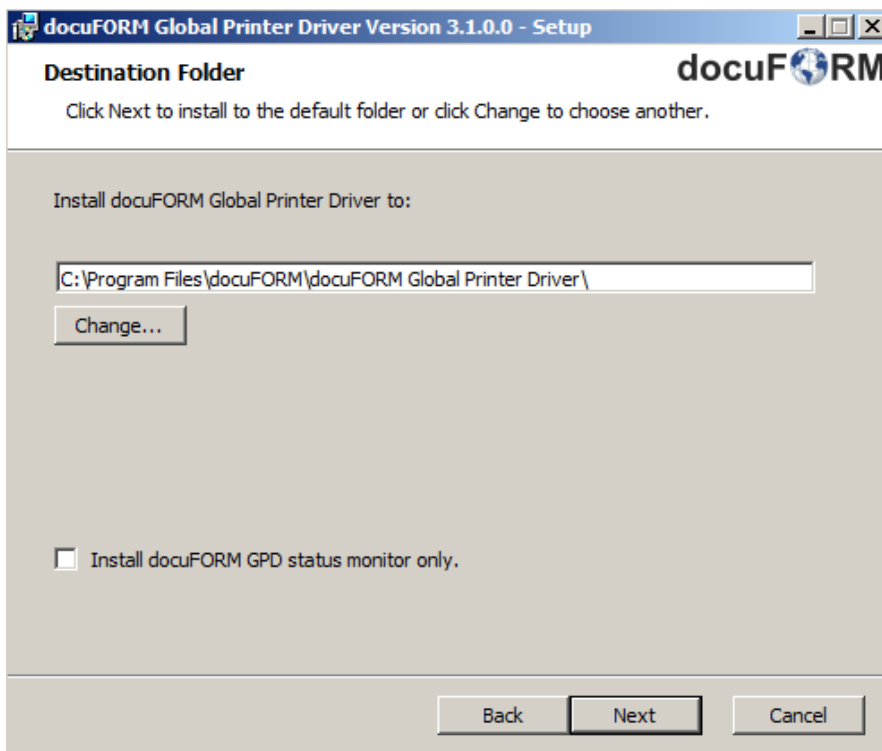


By clicking the '**Next**' button, the installation wizard will proceed to the next installation step. Clicking the '**Back**' button returns to the previous installation step. Clicking the '**Cancel**' button aborts the installation.

In the next step, the licensing terms for the docuFORM GPD must be approved.



Afterwards the selection of the target folder for the installation of the docuFORM GPD files takes place. An option for the standalone installation of the docuFORM GPD status monitor can also be selected here. Only the print job overview component of the docuFORM GPD will be installed.



The following installation step includes the configuration of the communication ports to the Fleet & Service Management Server as well as to the docuFORM Status Monitor.

The screenshot shows the 'Server connection' window of the docuFORM Global Printer Driver Version 3.1.0.0 - Setup. The window has a title bar with the product name and version. Below the title bar, there is a section titled 'Server connection' with a sub-instruction: 'Click on "Next" to connect to the standard FSM Server'. The main area contains several input fields and checkboxes. The 'FSMM Server' section has an 'Address:' field (empty) and an 'XML-RPC Port:' field (containing '52006'). The 'docuFORM GPD status monitor Feedback Ports' section has a 'Feedback UDP port range:' field (containing '43250 - 43500'). Below these are three checkboxes: 'Install and run docuFORM GPD status monitor.' (checked), 'Retrieve printing rights from Active Directory' (unchecked), and 'Do rights query at all NPS Servers' (unchecked). There are also three dropdown menus: 'do not create a generic Follow2Print printer', 'Derive printer name from net address', and 'Aggregated print queues for each NPS server'. At the bottom right, there are 'Back', 'Next', and 'Cancel' buttons.

The input field '**Address**' must contain the TCP / IP address or the DNS name of the Fleet & Service Management (FSM) server or - for a 'capture client only' installation the TCP / IP address or the DNS name of the Fleet & Service Management Client software. The docuFORM GPD communicates with these applications and obtains information about the printing systems available for printing from these applications. The entries for XML-RPC ports and Feedback UDP ports are already preassigned and should only be modified by experienced users.

The option '**Install and start docuFORM GPD Status Monitor**' controls the installation of the GPD Status Monitor program

The option '**Determine printing rights from Active Directory**' controls whether the printing rights of the respective users are to be taken over from the Active Directory.



docuFORM Global Printer Driver Version 3.1.0.0 - Setup

**Server connection**

Click on "Next" to connect to the standard FSM Server

FSMM Server

Address: 172.26.0.54 XML-RPC Port: 52006

docuFORM GPD status monitor Feedback Ports

Feedback UDP port range: 43250 - 43500

☒ Install and run docuFORM GPD status monitor.

☐ Retrieve printing rights from Active Directory

☐ Do rights query at all NPS Servers

do not create a generic Follow2Print printer

Derive printer name from net address

Aggregated print queues for each NPS server

Back Next Cancel

If the checkbox **"Request permissions on all NPS servers"** is checked, all NPS servers entered into the printer database are queried for changed printer properties and authorizations. This query may take longer for remote or powered down servers. If this option is not required, leave the checkbox unchecked.

docuFORM Global Printer Driver Version 3.1.0.0 - Setup

**Server connection**

Click on "Next" to connect to the standard FSM Server

FSMM Server

Address: 172.26.0.54 XML-RPC Port: 52006

docuFORM GPD status monitor Feedback Ports

Feedback UDP port range: 43250 - 43500

☒ Install and run docuFORM GPD status monitor.

☐ Retrieve printing rights from Active Directory

☐ Do rights query at all NPS Servers

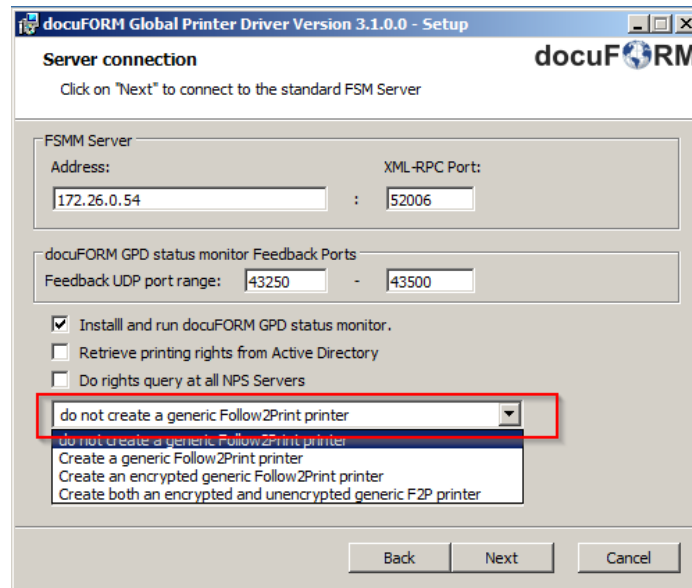
do not create a generic Follow2Print printer

Derive printer name from net address

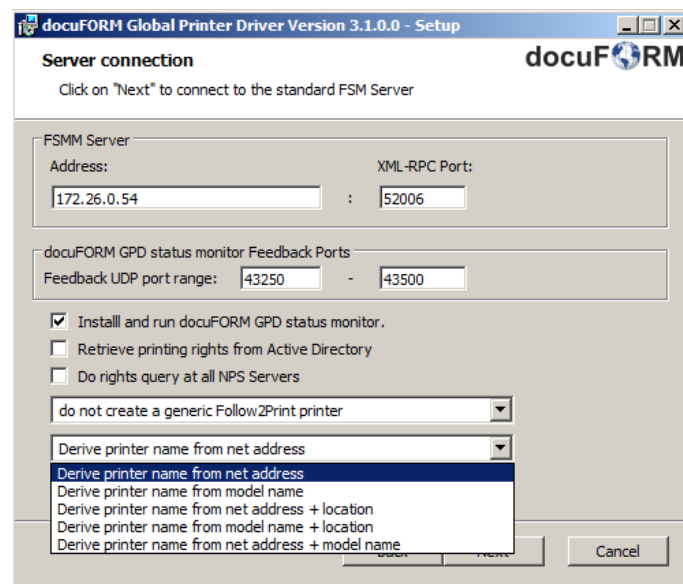
Aggregated print queues for each NPS server

Back Next Cancel

In the **upper drop-down list** you can create a Follow2Print printer immediately after installation of the GPD. This can be done for encrypted or encrypted and unencrypted printing.



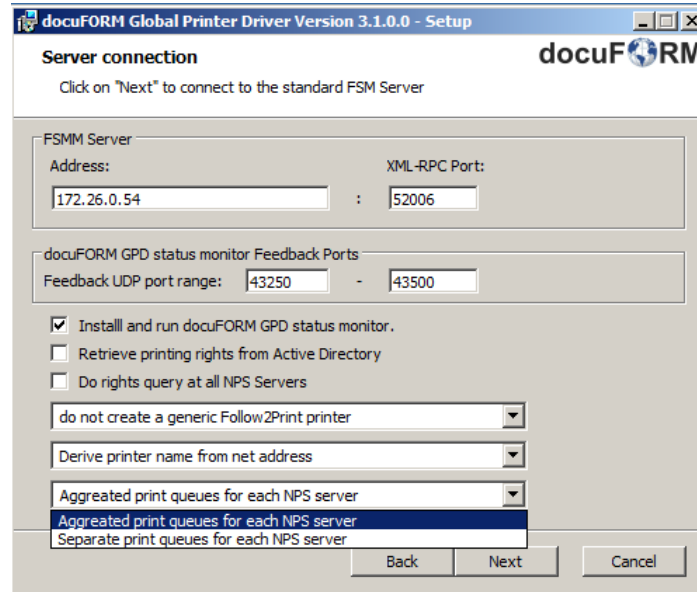
The **middle drop-down list** allows the user to specify how the printer name of a GPD printing system, which will later be displayed in the print dialogs of the applications, should be constructed.



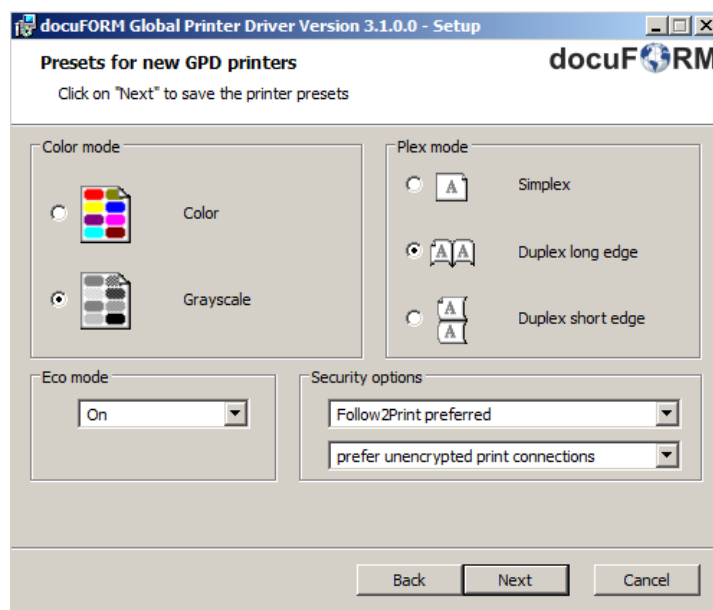
The setting in the **lower drop-down list** can be used to specify whether the GPD printer to be added will be assigned a separate port to connect to the Mercury Server or, as before, to aggregate the ports per target server.

### Background:

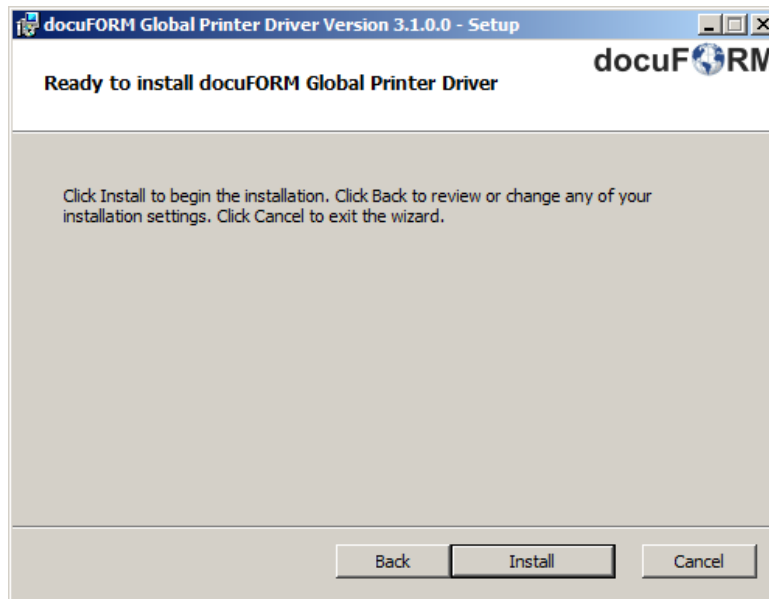
Separate connections are required if you want to accept print data from non-GPD channels via the (encrypted) print data input on the Mercury server. The (LPR) queue name of the separate ports allows the Mercury server - if set appropriately - to distinguish and correctly handle the different job types.



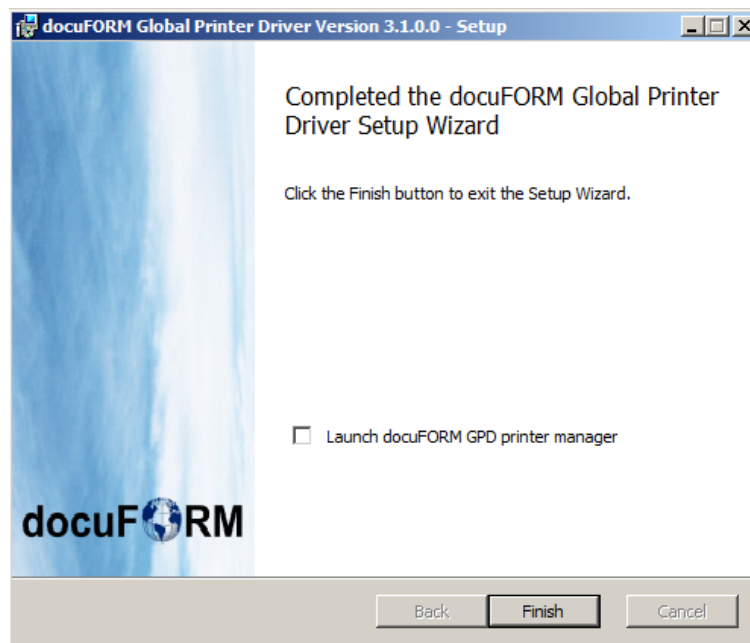
In the next configuration dialog, preferences for new GPD printers regarding color mode, eco mode and two-sided printing and security settings can be defined. These presets are then applied in the settings of newly created GPD printers.



All required parameters for installing the docuFORM GPD are now defined and in the next installation step, clicking the **'Install'** button begins the transfer of the docuFORM GPD files.



After successful transfer of all docuFORM GPD files, a final installation screen will confirm the completion of the docuFORM GPD installation.

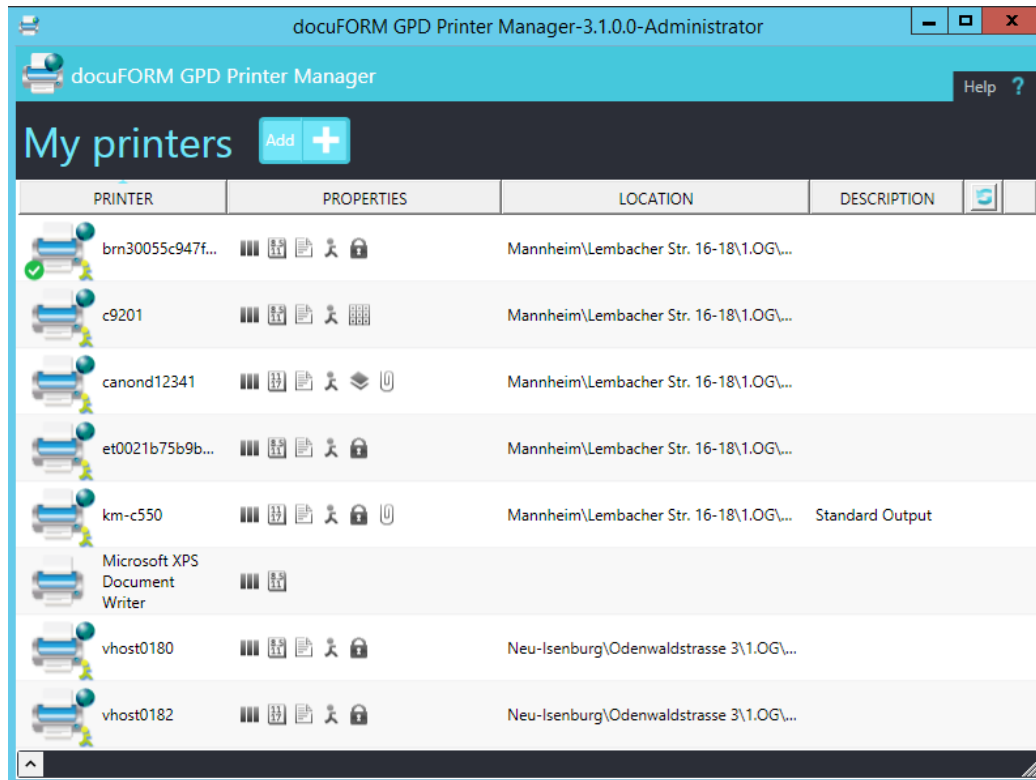


Three new applications are installed via the docuFORM GPD software package:

- docuFORM GPD Printer Manager
- docuFORM Global Printer Driver
- Status Monitor

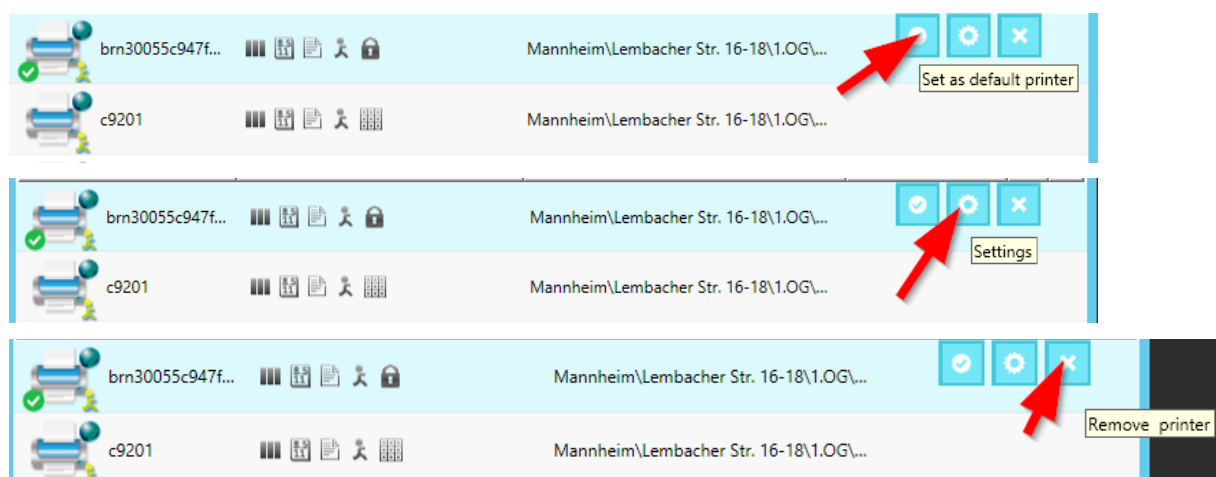
### 3 docuFORM GPD Printer Manager

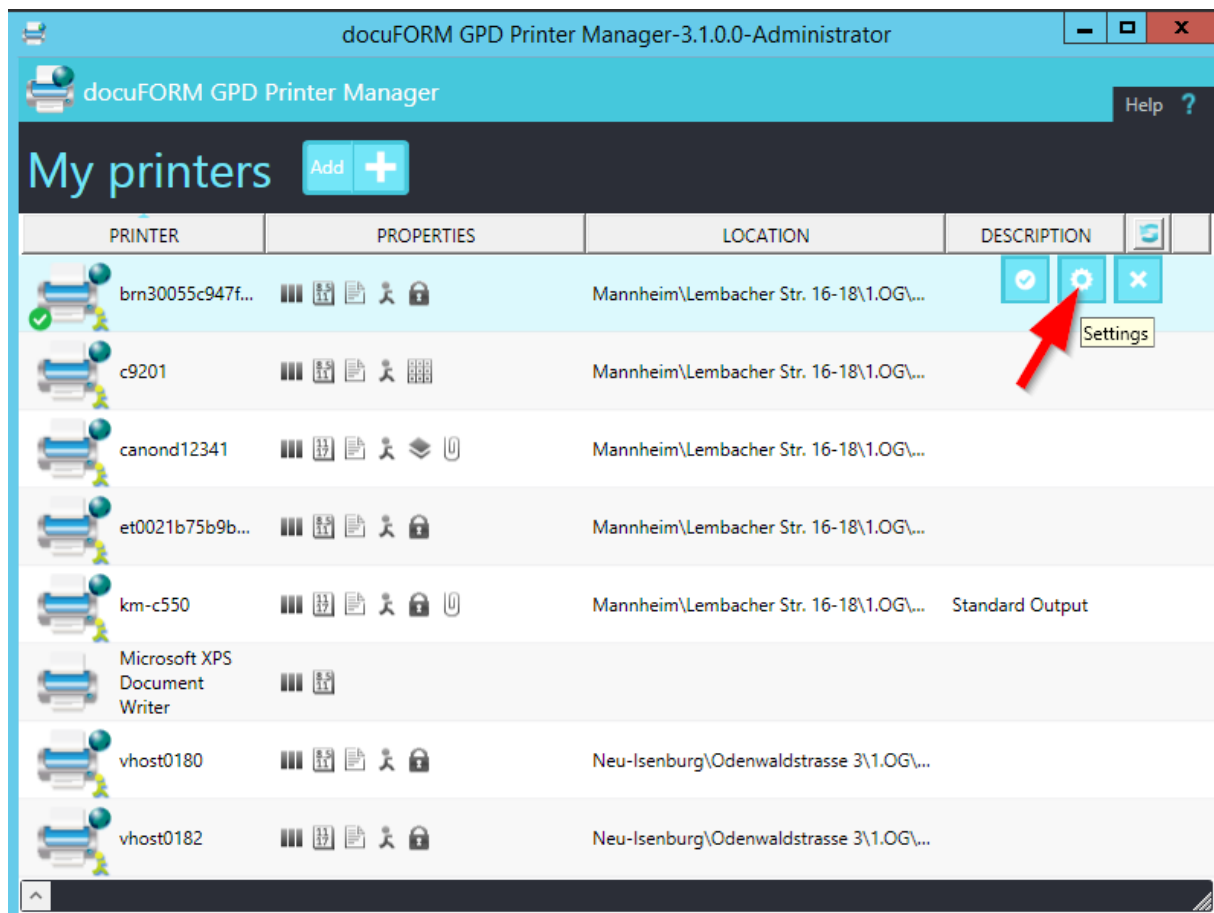
The core of the docuFORM Global Printer Driver is the Printer Manager application. With this application, the user sets up and manages their required GPD output systems.



The first time this application is called, it will list all Windows printing systems with their capabilities and printer ports set up on the user's system.

By selecting a listed printing system, it can be defined as the **default printer**, edited or **deleted** in the printer **Settings**.





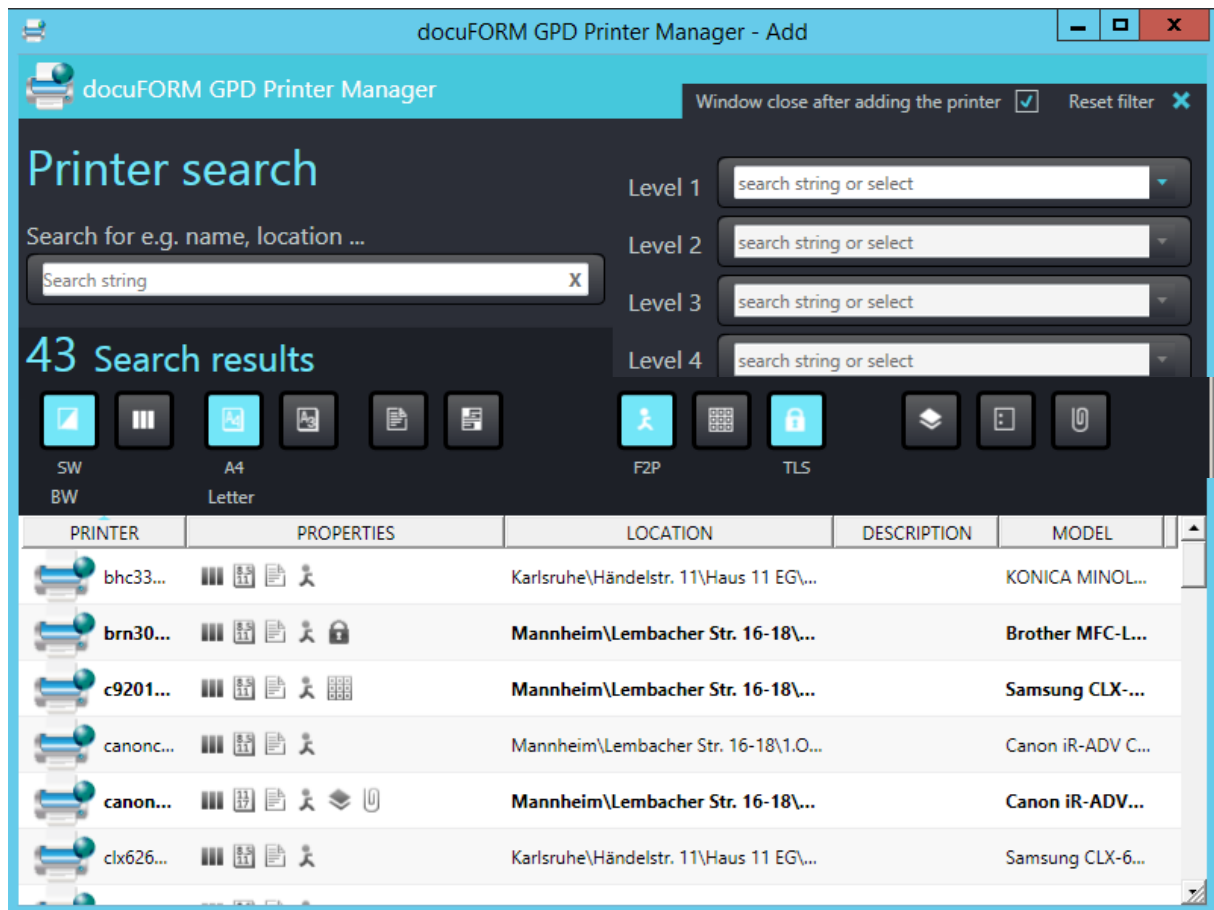
At the bottom of the docuFORM GPD Printer Manager window messages and notifications of the application are displayed.

By clicking on the column headers of the printer list, the listed printing systems can be sorted according to the column heading.

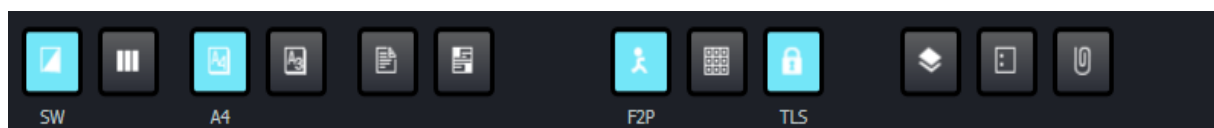
Selecting '**Add**' adds new GPD printing systems to the user and adds them to the available printing systems.

A convenient search dialog for printing systems is now displayed, which is fed with information from the output systems found by the docuFORM SNMP capture client on the network.

The printer search for locations here supports up to ten freely definable fields, such as city, street, building, room, etc. The site hierarchies are defined in the 'Settings' menu of the Fleet & Service Management Server software.

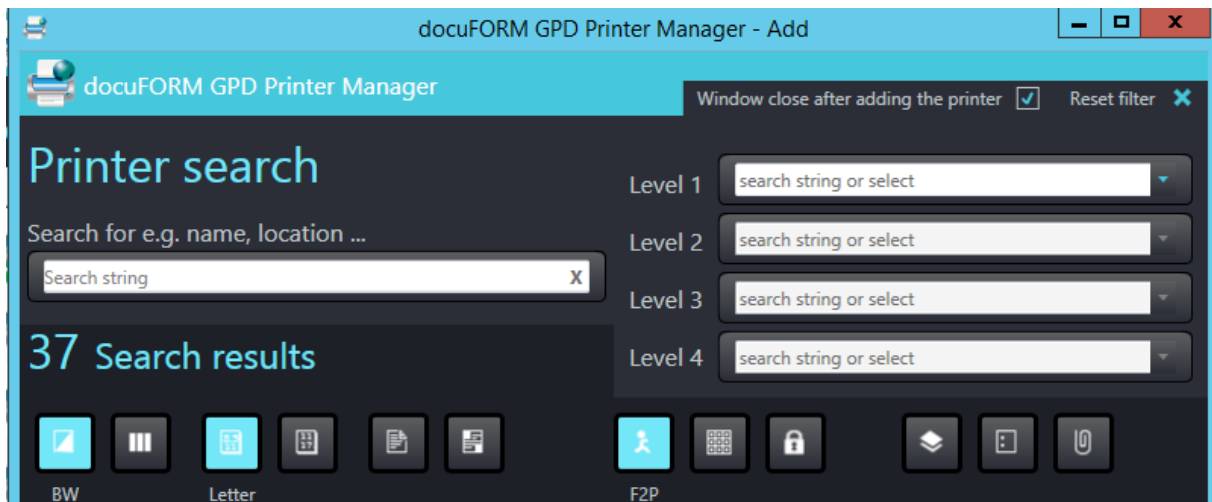


Here, printing systems to be set up as new GPD printers for the user can be selected and found according to required characteristics such as duplex printers, color printers, Follow2Print printers, encrypted printing, etc. or according to the desired finishing options or paper options. By selecting and clicking the required property finishing or paper options buttons, the printing systems shown in the result list of this dialog are automatically updated.



For properties selected for the printer search, descriptions in text form appear below the buttons. When hovering the buttons with the mouse pointer, help text about the function of the buttons is displayed.

Furthermore, printing systems can also be searched for your locations or your host name or printer addresses. Clicking the input fields 'City', 'Street' etc. displays a list of available locations for the selected input field. Alternatively, a location name can also be entered in the input field. For a free text search for printing systems the left input field is used.



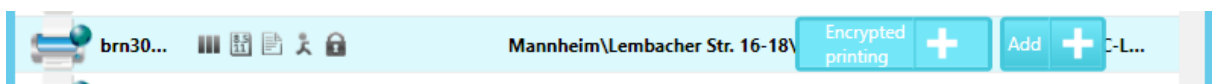
The results area of the printer search lists the printing systems that meet the search criteria. The functions of the individual printing systems are represented by icons in the column 'Functions'.



If you hover the mouse pointer over the icons, help text is displayed explaining the respective function of the printing system.



The output system to be set up as a new GPD printing system must be selected in the result list.



Clicking on the **'Add'** button stops the setup of a new GPD printer and closes the printer search dialog.

The docuFORM GPD printer manager lists GPD printers with a "globe" symbol.



Printers for which the Follow2Print option has been set up are marked with a "human" symbol.



symbol.



If you select a GPD printer system and click the '**Settings**' option, the GPD printer driver options can be configured.

Clicking the button  refreshes the printer list display.

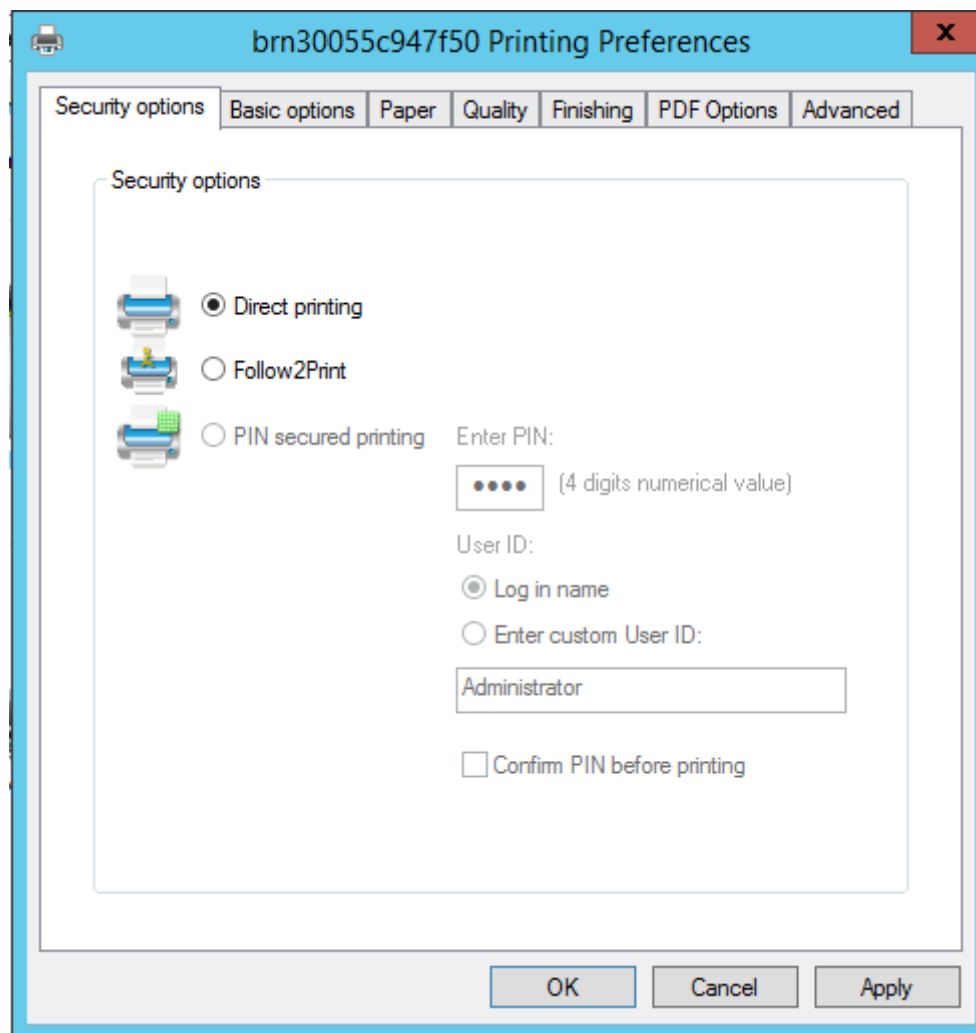
Clicking the '**Help**' button displays the information screen of the docuFORM GPD. Information about the version of the software, the logged-in user, the responsible Fleet & Service Management (configuration) server or client and the responsible Mercury OMS server etc. is displayed here. The docuFORM Global Printer Driver communicates with both applications. From the Fleet & Service Management server or client, the GPD receives information about the available output systems and their options. The print data generated by the GPD is transferred to the Mercury OMS server for editing and output to the desired printing systems.



## 4 docuFORM GDP Printer Driver

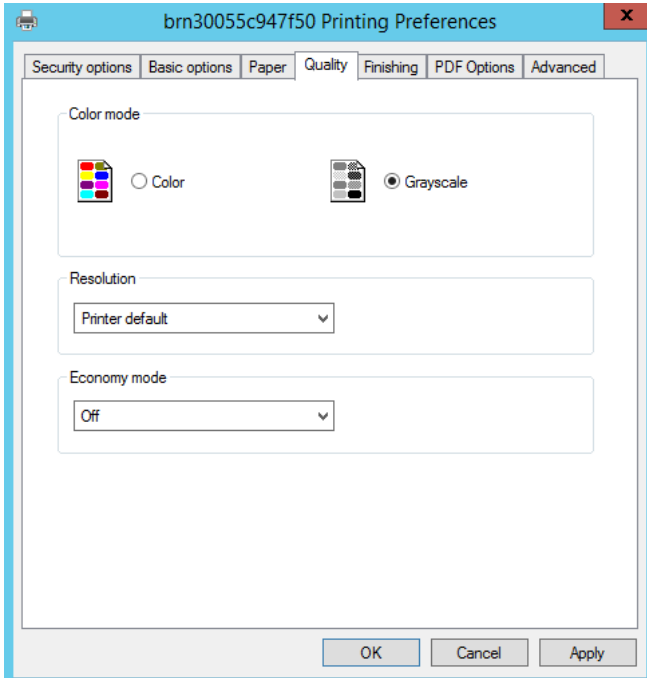
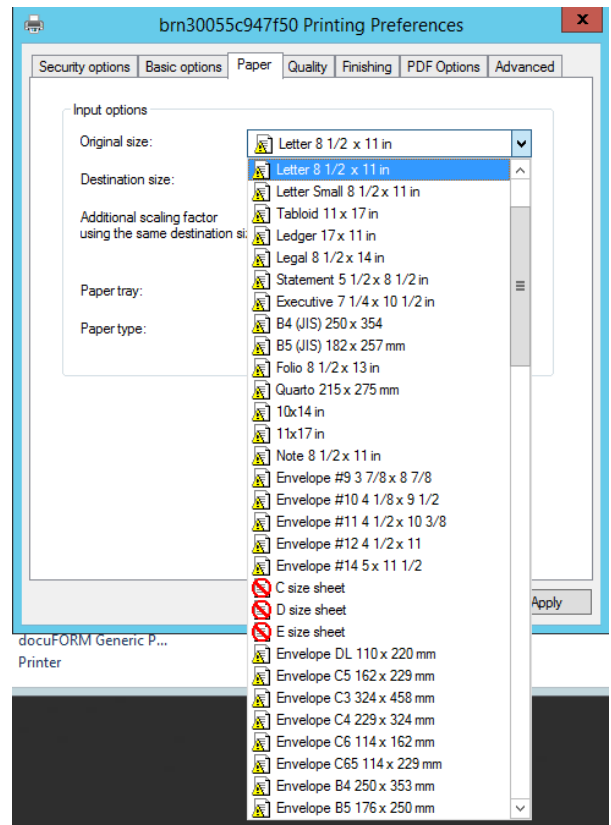
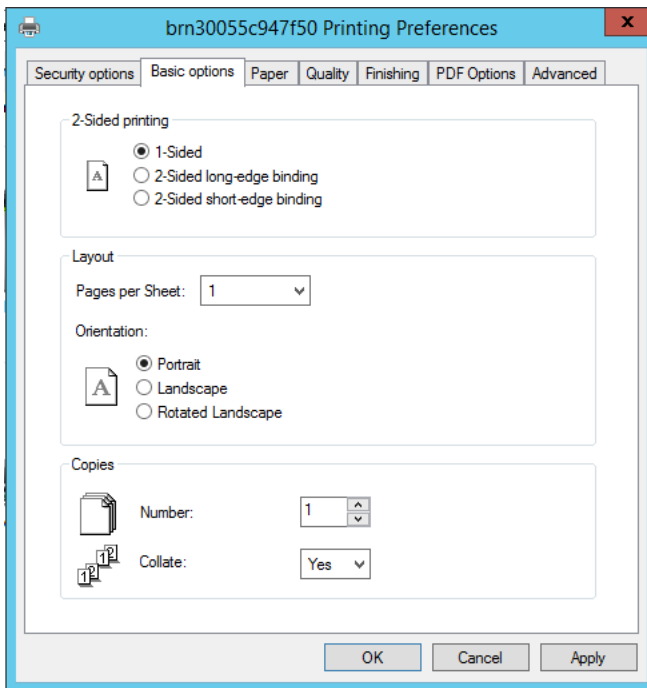
The docuFORM GDP printer driver is a Microsoft Windows based printer driver for GDP printing systems that generates generic postscript print data. These generic postscript print data are forwarded from the docuFORM GDP printer driver to the Mercury OMS software and supplemented by the Mercury OMS software with the specific postscript code of the selected output system. This ensures that every output system configured as a GDP printing system is always fed with print data generated exactly for this system. This procedure is also used for Follow2Print printing. Again, the print data stream is processed after authentication of the user on the output device with the required postscript code for this output device.




The docuFORM GDP printer driver provides several configuration dialogs for selecting the required output options.



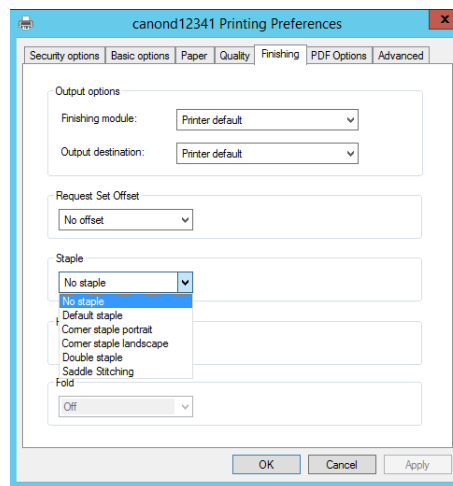
The tab '**Security Settings**' is used to define the required output format of the print data. In addition to direct printing, the Follow2Print procedure and securing the printing

process by entering a PIN are also available here. The docuFORM Global Printer Driver automatically recognizes which printing systems support the PIN printing process.

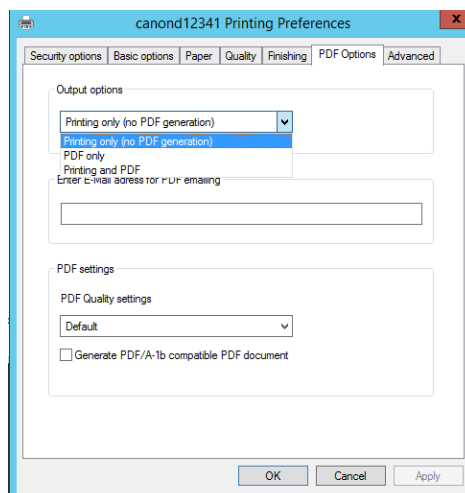
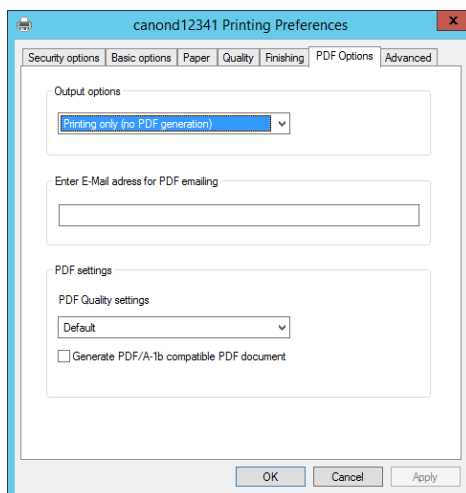


Additional configuration dialogs can be used to set up print options, format, color and paper options, as well as finishing for output on the GPD printing system. In this case, the GPD displays in the paper selection list an icon  indicating the currently inserted paper sizes. Printable paper sizes that are currently not inserted in the printing system are indicated by an icon . Paper sizes that the printing system cannot handle are indicated by an icon  in the paper selection list, but can still be selected - e.g. for PDF creation.

The tab **'Finishing'** can be used, among other things, to set the stapling options at different sheet positions.



In the configuration tab **'PDF Options'**, the settings required for the docuFORM GPD PDF Workflow can be defined.



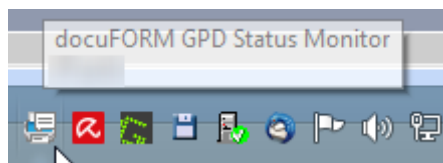
In **'Output Options'**, selected whether the documents created with the docuFORM GPD should only be printed, whether only PDF files of these documents should be generated, or whether both printed and PDF documents should be output. The PDF documents are generated by the Mercury OMS software and sent to the user by email. To do this, the recipient address of the PDF documents must be entered in the input field **'Email address for PDF sending'**. In the area **'PDF Settings'** options for

generating PDF documents can be selected.

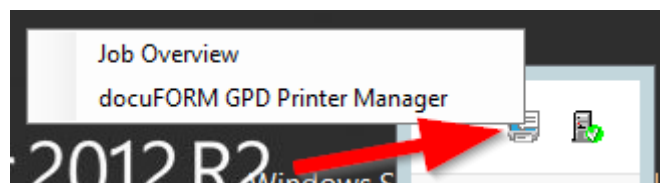
To use the docuFORM GPD PDF workflow, the required logical print paths must be set up in the Mercury OMS software. Instructions can be found in this document.

## 5 docuFORM GPD Status Monitor

A special icon for the docuFORM Global Printer Driver is installed in the tray area of the user system.

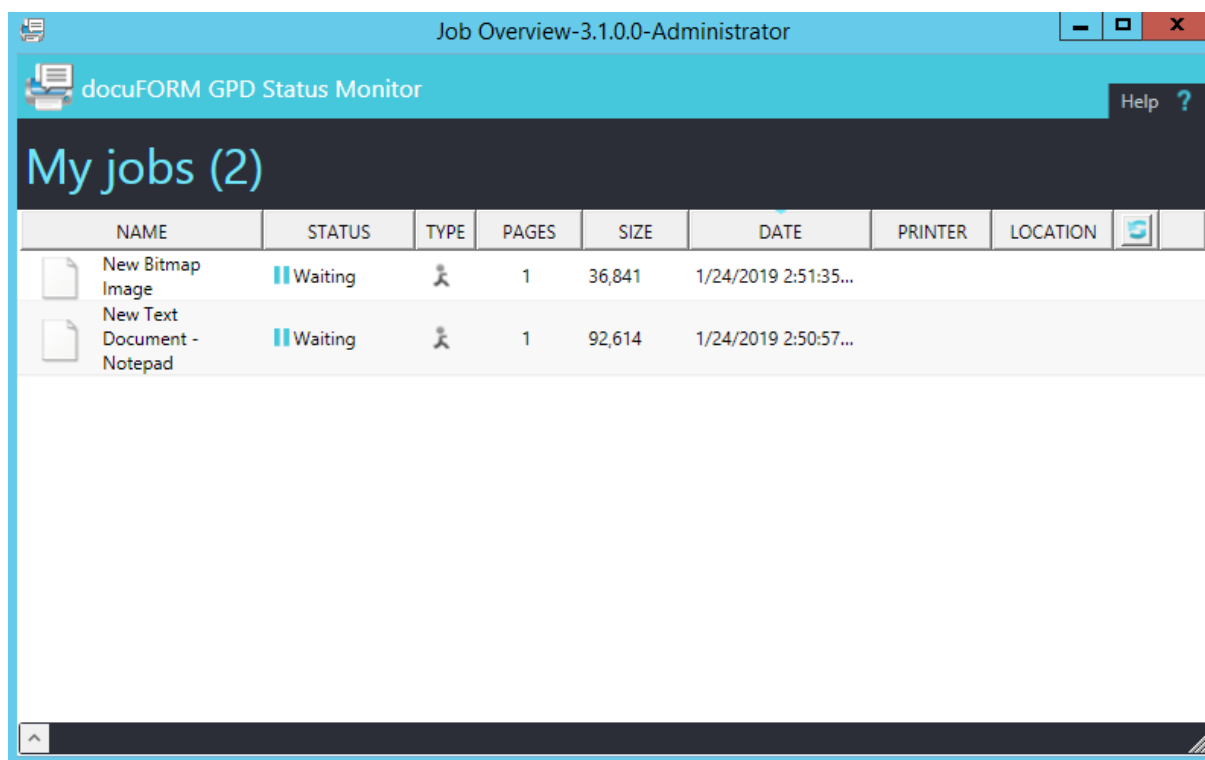



Right clicking this icon opens a menu which displays either the print job overview or the docuFORM GPD Printer Manager.

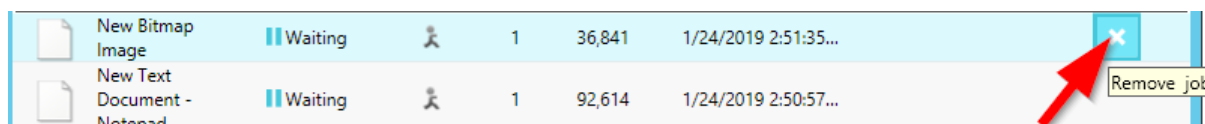


The print job overview is an application that displays all print jobs that are pending and already printed by the user. The entries can be sorted by clicking the column headers.

Clicking the button  refreshes the printer list display.

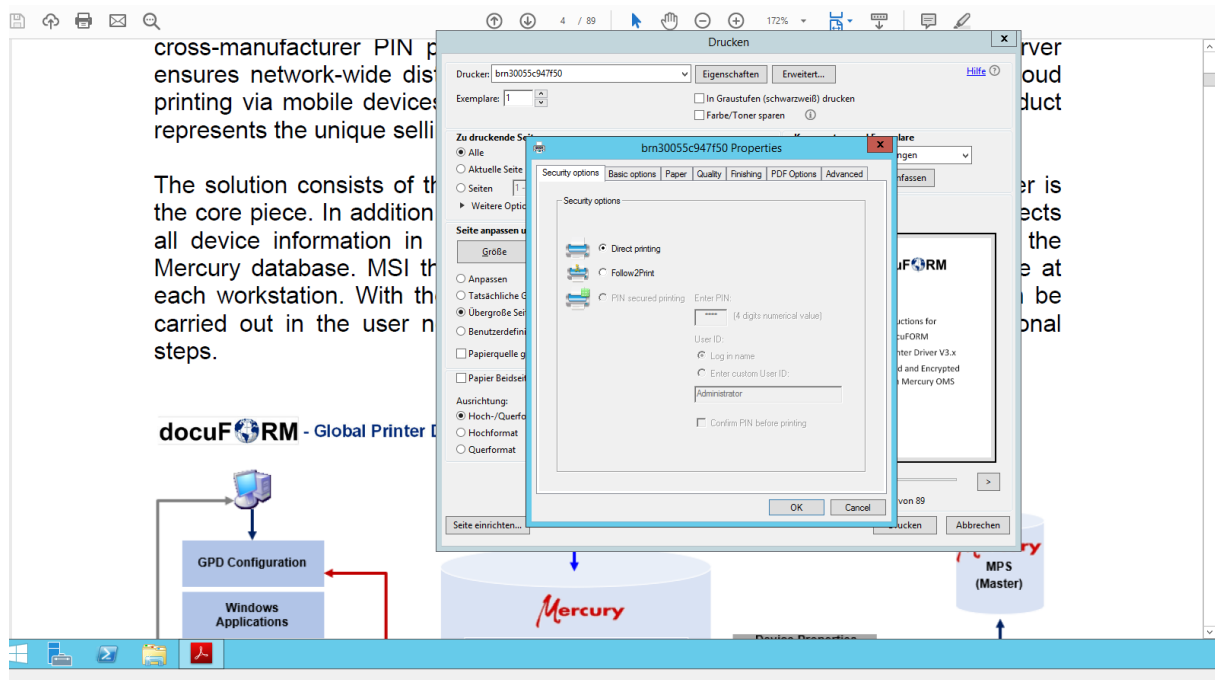


Jobs that are already printed will still be displayed in the print order overview for 48 hours after successful printout. This allows the user to see which print jobs they printed recently. By selecting a print job and clicking the button , a print job that has not yet been printed can also be deleted.



## 6 Printing with the docuFORM Global Printer Driver

Printing documents with the docuFORM Global Printer Driver is no different from the familiar print workflow of a Windows application.

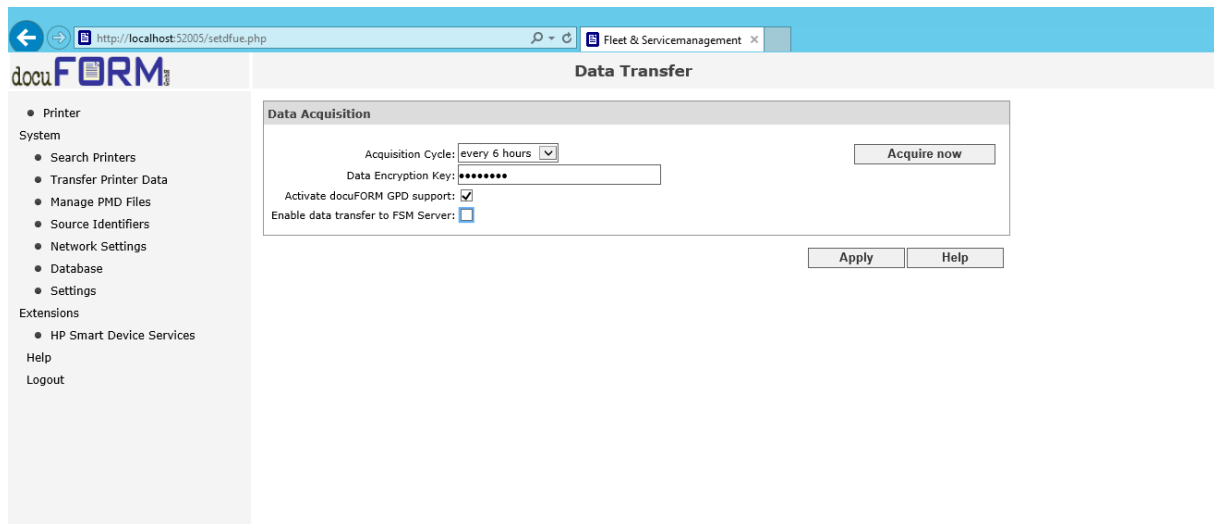


The user selects the desired GPD printer in the 'Print' dialog of the application and can then, as usual, configure the options of the GPD printer required for the printout by opening the 'Properties' dialog.


The Postscript print data generated by the docuFORM GPD is then transferred to the responsible Mercury OMS server, where it is prepared for output to the desired target printing system and then sent to this system for printing.

## 7 GPD Configuration within the FSM Client

For a GPD workflow with Mercury OMS Server and FSM capture client only, the following configuration steps must be performed within the FSM Client software.



In addition to the configuration options for searching for printing systems on the network in the menu **'Search Printers'** of the FSM Client Software, the **'Data Transfer'** menu must also be set to 'Activate docuFORM GPD Support'. If the FSM client software is to serve exclusively as the data provider for a GPD system, deactivate the option 'Enable data transfer to FSM server'.

Since the docuFORM Global Printer Driver PostScript generates print data, only PostScript-capable printing systems are suitable for printing documents generated by the GPD. The FSM Client software automatically detects if a printing system is suitable for printing PostScript documents and displays these printing systems in the FSM Client Software's Printer menu with an icon  in front of the printer entry. Only PostScript-enabled printing systems are sent from the FSM client software to the GPD for selection by the user.



- Printer
- System
  - Search Printers
  - Transfer Printer Data
  - Manage PMD Files
  - Network Settings
  - Database
  - Settings
- Help
- Logout

### Printer

Export Import

<input type="checkbox"/>		Printer	Serial	MAC	Acquired on	PMD File
<input type="checkbox"/>		172.16.1.108 KONICA MINOLTA bizhub C3350 v1	A4Y4021010180	00206BE1658E	01/24/2019 15:22:39	KONICA MINOLTA bizhub C3350 5.8
<input type="checkbox"/>		172.16.1.110 TASKalfa 250ci v1	QJK0621258	00C0EE4CD4AE	01/24/2019 15:22:35	Kyocera TASKalfa 250ci 5.6
<input type="checkbox"/>		172.16.1.111 Samsung CLX-6260 Series v1	Z77ABJED9000N8N	0015990D57E4	01/24/2019 15:22:29	Samsung CLX-6260 Series 5.2
<input type="checkbox"/>		172.16.1.113 HP Color LaserJet FlowMFP M577 v1	JPBVJDL02P	C8D3FFB0BE47	01/24/2019 15:22:24	HP Color LaserJet FlowMFP M577 6.1
<input type="checkbox"/>		172.16.1.116 HP Color LaserJet MFP E77822 v1	CNB8KBS0FR	F430B9F5D2FC	01/24/2019 15:22:26	HP Color LaserJet MFP E77822 6.1

Printers total: 5 - confirmed: 0

Monitoring Follow2Print Secure Print

Help Delete Acquire data

If the Follow2Print process is also used within the GPD workflow of a user, the user within the FSM client software must select which output systems should participate in the Follow2Print process.

To do this, they check the box for the required printing system and activate Follow2Print for this system.

- Printer
- System
  - Search Printers
  - Transfer Printer Data
  - Manage PMD Files
  - Network Settings
  - Database
  - Settings
- Help
- Logout

### Printer

Export Import

<input type="checkbox"/>		Printer	Serial	MAC	Acquired on	PMD File
<input checked="" type="checkbox"/>		172.16.1.108 KONICA MINOLTA bizhub C3350 v1	A4Y4021010180	00206BE1658E	01/24/2019 15:22:39	KONICA MINOLTA bizhub C3350 5.8
<input type="checkbox"/>		172.16.1.110 TASKalfa 250ci v1	QJK0621258	00C0EE4CD4AE	01/24/2019 15:22:35	Kyocera TASKalfa 250ci 5.6
<input type="checkbox"/>		172.16.1.111 Samsung CLX-6260 Series v1	Z77ABJED9000N8N	0015990D57E4	01/24/2019 15:22:29	Samsung CLX-6260 Series 5.2
<input type="checkbox"/>		172.16.1.113 HP Color LaserJet FlowMFP M577 v1	JPBVJDL02P	C8D3FFB0BE47	01/24/2019 15:22:24	HP Color LaserJet FlowMFP M577 6.1
<input type="checkbox"/>		172.16.1.116 HP Color LaserJet MFP E77822 v1	CNB8KBS0FR	F430B9F5D2FC	01/24/2019 15:22:26	HP Color LaserJet MFP E77822 6.1

Printers total: 5 - confirmed: 0

Monitoring Follow2Print Secure Print

Help Delete Acquire data

Output systems selected for the Follow2Print procedure are marked with an in the printer list of the FSM Client software.

- Printer
- System
  - Search Printers
  - Transfer Printer Data
  - Manage PMD Files
  - Network Settings
  - Database
  - Settings
- Help
- Logout

### Printer

Export Import

<input type="checkbox"/>		Printer	Serial	MAC	Acquired on	PMD File
<input type="checkbox"/>		172.16.1.108 KONICA MINOLTA bizhub C3350 v1	A4Y4021010180	00206BE1658E	01/24/2019 15:23:07	KONICA MINOLTA bizhub C3350 5.8
<input type="checkbox"/>		172.16.1.110 TASKalfa 250ci v1	QJK0621258	00C0EE4CD4AE	01/24/2019 15:23:04	Kyocera TASKalfa 250ci 5.6
<input type="checkbox"/>		172.16.1.111 Samsung CLX-6260 Series v1	Z77ABJED9000N8N	0015990D57E4	01/24/2019 15:22:29	Samsung CLX-6260 Series 5.2
<input type="checkbox"/>		172.16.1.113 HP Color LaserJet FlowMFP M577 v1	JPBVJDL02P	C8D3FFB0BE47	01/24/2019 15:22:24	HP Color LaserJet FlowMFP M577 6.1
<input type="checkbox"/>		172.16.1.116 HP Color LaserJet MFP E77822 v1	CNB8KBS0FR	F430B9F5D2FC	01/24/2019 15:22:26	HP Color LaserJet MFP E77822 6.1

Printers total: 5 - confirmed: 0

Monitoring Follow2Print Secure Print

Help Delete Acquire data

If secure printing is also used within the user's GPD workflow, the user must define the corresponding output systems within the FSM client software.

To do this, they check the box for the required printing system and activate secure print for this system.

- Printer
- System
  - Search Printers
  - Transfer Printer Data
  - Manage PMD Files
  - Network Settings
  - Database
  - Settings
- Help
- Logout

### Printer

Export Import

<input checked="" type="checkbox"/>		Printer	Serial	MAC	Acquired on	PMD File
<input checked="" type="checkbox"/>		172.16.1.108 KONICA MINOLTA bizhub C3350 v1	A4Y4021010180	00206BE1658E	01/24/2019 15:23:07	KONICA MINOLTA bizhub C3350 5.8
<input checked="" type="checkbox"/>		172.16.1.110 TASKalfa 250ci v1	QJK0621258	00C0EE4CD4AE	01/24/2019 15:23:04	Kyocera TASKalfa 250ci 5.6
<input checked="" type="checkbox"/>		172.16.1.111 Samsung CLX-6260 Series v1	Z77ABJED9000N8N	0015990D57E4	01/24/2019 15:22:29	Samsung CLX-6260 Series 5.2
<input checked="" type="checkbox"/>		172.16.1.113 HP Color LaserJet FlowMFP M577 v1	JPBVJDL02P	C8D3FFB0BE47	01/24/2019 15:22:24	HP Color LaserJet FlowMFP M577 6.1
<input checked="" type="checkbox"/>		172.16.1.116 HP Color LaserJet MFP E77822 v1	CNB8KBS0FR	F430B9F5D2FC	01/24/2019 15:22:26	HP Color LaserJet MFP E77822 6.1

Printers total: 5 - confirmed: 0

Monitoring Follow2Print Secure Print

Help Delete Acquire data

Secure Print

- Activate
- Deactivate

The "Secure Print" process is marked with an icon on the output system in the printer list of the FSM Client Software.

**docuFORM**  
● Printer  
System  
● Search Printers  
● Transfer Printer Data  
● Manage PMD Files  
● Network Settings  
● Database  
● Settings  
Help  
Logout

**Printer**  
Export Import  

<input type="checkbox"/>		Printer	Serial	MAC	Acquired on	PMD File
<input type="checkbox"/>	✓	172.16.1.108 KONICA MINOLTA bizhub C3350 v1	A4Y4021010180	00206BE1658E	01/24/2019 15:23:07	KONICA MINOLTA bizhub C3350 5.8
<input type="checkbox"/>	✓	172.16.1.110 TASKalfa 250ci v1	QJK0621258	00C0EE4CD4AE	01/24/2019 15:23:04	Kyocera TASKalfa 250ci 5.6
<input type="checkbox"/>	✓	172.16.1.111 Samsung CLX-6260 Series v1	Z77ABJED9000N8N	0015990D57E4	01/24/2019 15:22:29	Samsung CLX-6260 Series 5.2
<input type="checkbox"/>	✓	172.16.1.113 HP Color LaserJet FlowMFP M577 v1	JPBVJDL02P	C8D3FFB0BE47	01/24/2019 15:22:24	HP Color LaserJet FlowMFP M577 6.1
<input type="checkbox"/>	✓	172.16.1.116 HP Color LaserJet MFP E77822 v1	CNB8KBS0FR	F430B9F5D2FC	01/24/2019 15:22:26	HP Color LaserJet MFP E77822 6.1

Printers total: 5 - confirmed: 0

Monitoring Follow2Print Secure Print Help Delete Acquire data

## 8 GPD Configuration in Mercury OMS

***Installing and configuring Mercury OMS requires basic knowledge of the software.***

To operate a GPD workflow, the parameters for Mercury OMS to communicate with the Fleet & Service Management software must first be entered in the Mercury OMS software configuration.

To do this, from the Mercury Windows client '**Setup**' menu, open the Mercury Server configuration options by clicking the '**Server**' menu item, then switch to the tab '**FSM Server**'.

The screenshot shows the 'Server Options' dialog box with the 'FSM Server' tab selected. The dialog has several tabs: General, Security, Logging, E-Mail Notification, Advanced, FSM Server (selected), and Accounting. The 'FSM / Accounting Server' section contains the following fields: 'Server IP address' (172. 26. 0. 54), 'System password' (masked with asterisks), 'Connect timeout' (15 sec), 'Idle timeout' (50 sec), and 'Communication timeout' (15 sec). The 'Transfer Settings' section includes checkboxes for 'Send fleet management statistics to FSM server' (unchecked), 'Retrieve printers from FSM server' (checked), 'Use as printer pool for distributed Mercury servers' (unchecked), and 'Transfer user information to FSM server' (unchecked). There is a 'Get printers now' button. Below these are fields for 'Customer / Dealer' (superadmin), 'Data transmission password' (masked with asterisks), and 'Mercury Server ID' (NPS-0616E822445B). At the bottom are 'OK' and 'Cancel' buttons.

The input field '**Server IP address**' must contain the TCP / IP address or the DNS host name of the Fleet & Service Management Server or - for a capture client only workflow - the FSM Client Software. In the input field '**System password**' the password of the administrator account (superadmin) of the Fleet & Service Management software must

be entered.

For the '**Transfer Settings**' options, the '**Retrieve printers from FSM server**' option must be activated and entered in the input field of the account name of the required dealer or customer, for which the information about printing systems should flow into the GPD workflow. If all printing systems of all dealers and customers are to be considered in the GPD workflow, the administrator account (superadmin) must be entered here.

In the input field '**Data transmission password**', the password assigned within the FSM software must be stored for data encryption of the account holder entered under '**Customer / Dealer**'. If no special passwords have been assigned here in the FSM software, the default password 'superadmin' must be entered here.

To identify the Mercury server, the '**Mercury Server ID**' entry box must have a unique Mercury server name configured. Clicking the '**Get printers now**' button starts the initial transfer of printer information from the FSM server to the Mercury OMS server.

## 9 Setting Up Mercury OMS software for GPD and PDF

## Workflow with Local and Mercury-wide Follow2Print for Secure and Unsecure Printing

### 9.1 Requirements

For standard GPD operation with secure and unsecure transmission, the following requirements apply:

1. Mercury Installation with empty print process configuration
2. Fleet & Service Management Installation
3. Valid certificate for TLS connections (ipps / https)
4. Ghostscript Version 9.21 may differ and should be requested from support.
5. *Optional: Mercury Index Server for workflows with more than one Mercury OMS*

### 9.2 Setup

Operating a Mercury OMS server to receive and process GPD print data for direct printing, PDF document generation, and local and global Follow2Print processing, secured and unsecured, requires the setup of a print process with a total of thirteen logical printers.

Depending on the desired workflow, the required logical printers, including input interfaces, emulations and filters, as well as required output interfaces must be set up according to the following descriptions.

Input Interface	Condition	Emulation	Output Interface
2 - CALMSPOOLPDF-INPUT1* [PDF Input (File)]	none	4 - PDF Conversion (Postscript Processor)	4 - Email TLS Output (SMTP) - mailrv.company.net:465 (<eMail> [...]
5 - Port 9500 [From remote Mercury (TCP/IP, P3L)]	none	1 - Print from remote Mercury (Raw to Raw)	8 - F2P (Global) Output (GPD Mapper) - Destination delivered by pr...
1 - Port 9100 [GPD Input (GPD)]	GPD: PDF by email	4 - PDF Conversion (Postscript Processor)	4 - Email TLS Output (SMTP) - mailrv.company.net:465 (<eMail> [...]
1 - Port 9100 [GPD Input (GPD)]	GPD: Follow2Print + PDF by email	6 - Normal + PDF Print (Postscript Processor)	2 - F2P Hold-Queue (GPD Mapper) - ?-9100
1 - Port 9100 [GPD Input (GPD)]	GPD: Follow2Print	5 - Normal Print (Postscript Processor)	2 - F2P Hold-Queue (GPD Mapper) - ?-9100
1 - Port 9100 [GPD Input (GPD)]	GPD: Normal print + PDF by email	6 - Normal + PDF Print (Postscript Processor)	1 - Standard Output (GPD Mapper) - Destination delivered by proto...
1 - Port 9100 [GPD Input (GPD)]	GPD: Normal print	5 - Normal Print (Postscript Processor)	1 - Standard Output (GPD Mapper) - Destination delivered by proto...
4 - Port 632 [TLS from remote Mercury (IPP [Server])]	none	1 - Print from remote Mercury (Raw to Raw)	7 - F2P (Global) TLS Output (GPD Mapper [IPP]) - Destination delv...
3 - Port 631 [GPD TLS Input (GPD [IPP])]	GPD: PDF by email	4 - PDF Conversion (Postscript Processor)	4 - Email TLS Output (SMTP) - mailrv.company.net:465 (<eMail> [...]
3 - Port 631 [GPD TLS Input (GPD [IPP])]	GPD: Follow2Print + PDF by email	6 - Normal + PDF Print (Postscript Processor)	6 - F2P TLS Hold-Queue (GPD Mapper [IPP]) - :632
3 - Port 631 [GPD TLS Input (GPD [IPP])]	GPD: Follow2Print	5 - Normal Print (Postscript Processor)	6 - F2P TLS Hold-Queue (GPD Mapper [IPP]) - :632
3 - Port 631 [GPD TLS Input (GPD [IPP])]	GPD: Normal print + PDF by email	6 - Normal + PDF Print (Postscript Processor)	5 - Standard TLS Output (GPD Mapper [IPP]) - Destination delv...
3 - Port 631 [GPD TLS Input (GPD [IPP])]	GPD: Normal print	5 - Normal Print (Postscript Processor)	5 - Standard TLS Output (GPD Mapper [IPP]) - Destination delv...

Specifically, the 13 configured logical printers include the following processing paths (order as shown in the above image):

1. Encrypted logical printer for generating PDF documents for all configurations in which both printouts and PDF documents are to be created.
2. Follow2Print processing of print data from a remote Mercury OMS server.
3. Local processing of Global Printer Driver print data from which only one PDF document is to be created.
4. Follow2Print processing and PDF generation of Global Printer Driver print data.
5. Follow2Print processing without PDF generation of Global Printer Driver print data.
6. Direct processing and PDF generation of Global Printer Driver print data.
7. Local direct processing without PDF generation of Global Printer Driver print data. This logical printer is labeled as a 'default' processing path that is used whenever the print data cannot be assigned to any of the other defined logical printers.
8. Encrypted Follow2Print processing of print data from a remote Mercury OMS server.
9. Encrypted local processing of Global Printer Driver print data from which only one PDF document is to be created.
10. Encrypted Follow2Print processing and PDF generation of Global Printer Driver print data.
11. Encrypted Follow2Print processing without PDF generation of Global Printer Driver print data.
12. Encrypted direct processing and PDF generation of Global Printer Driver print data.
13. Encrypted local direct processing without PDF generation of Global Printer Driver print data.

The basic configuration of the 13 required Mercury logical printers is the same for all Mercury OMS servers and differs only slightly, for example in the configuration of the mail server's access data in the SMTP output interface for sending Mercury-created PDF documents.

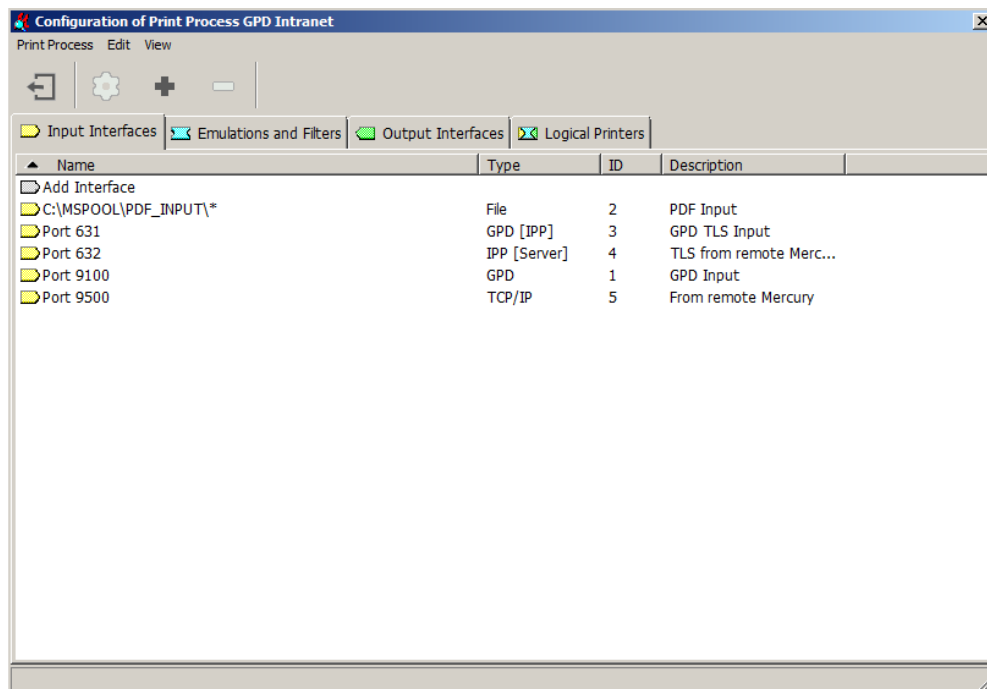
The setup of the necessary Mercury Input Interfaces, emulations, filters, Output Interfaces and the configuration of the resulting 13 logical printers is depicted here as screenshots of the above configuration.

For operation of only one Mercury, the remote or global Input and Output Interfaces are not required and can be omitted, in this case the 13 logical printers are reduced to nine.

***On request, a preconfigured Mercury.ini configuration file can be provided which can be imported, meaning only the settings for SMTP and directories need to be modified.***

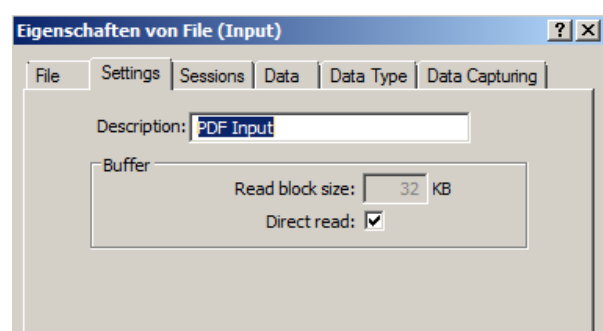
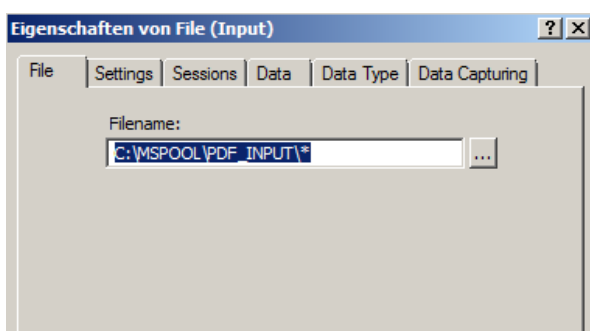
## 9.3 Setting up the Mercury Input Interfaces

For the Mercury Cross Follow2Print and PDF Workflow, five Mercury input interfaces are required.

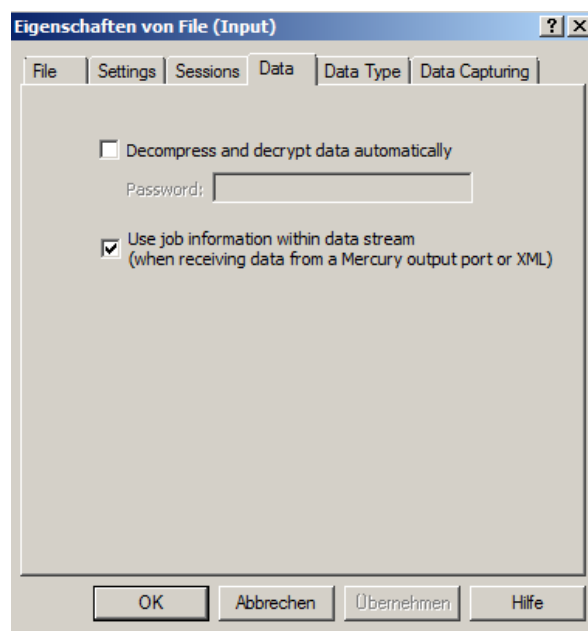
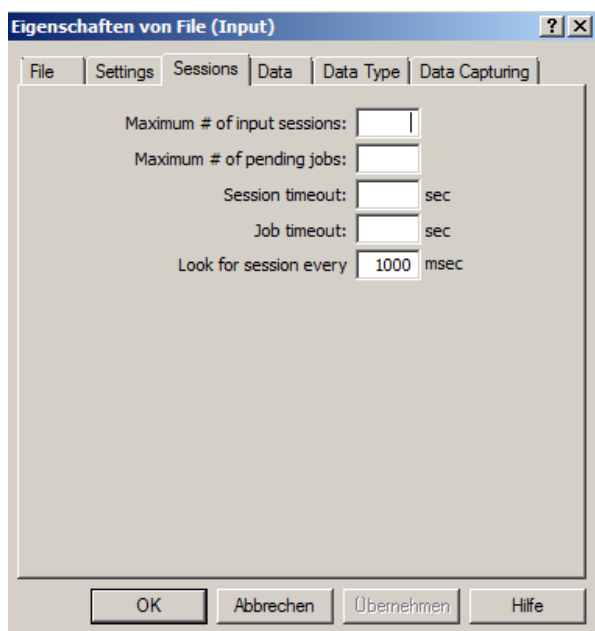


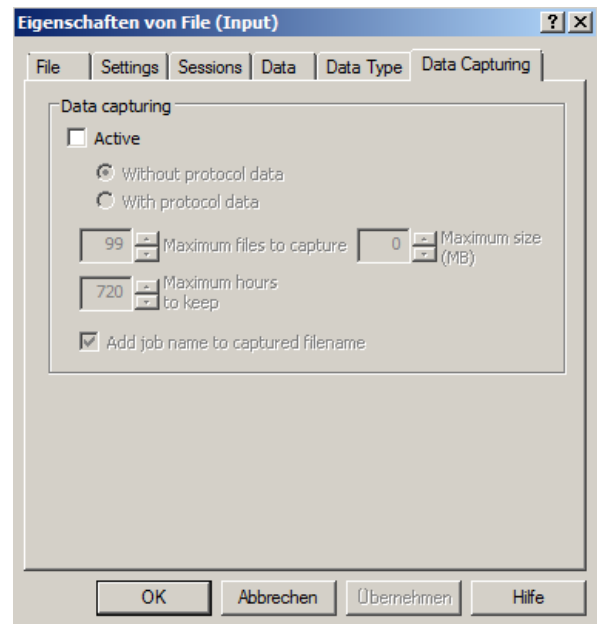
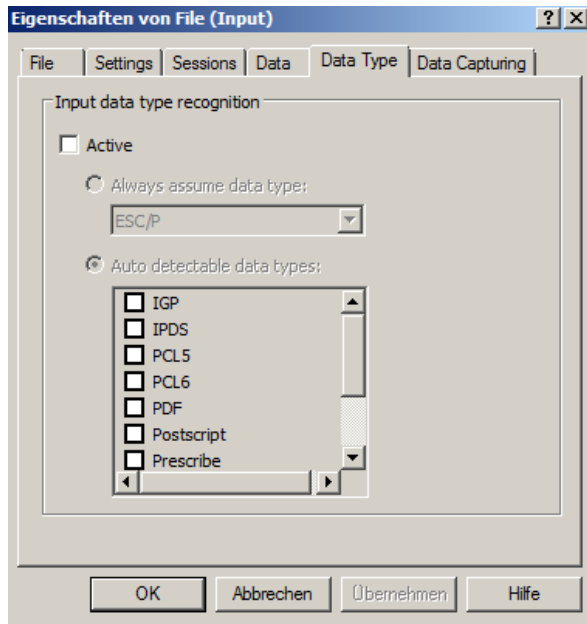
### PDF Input

For PDF documents to be created, a file input interface must be created.



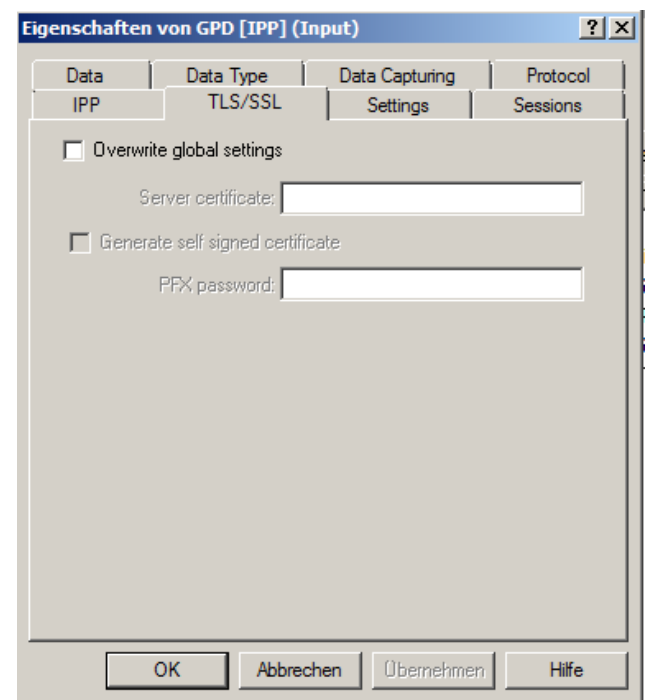
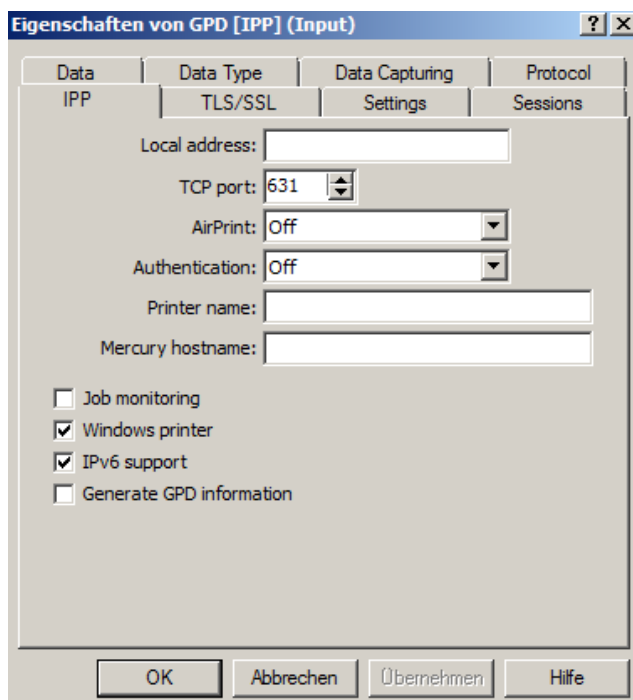


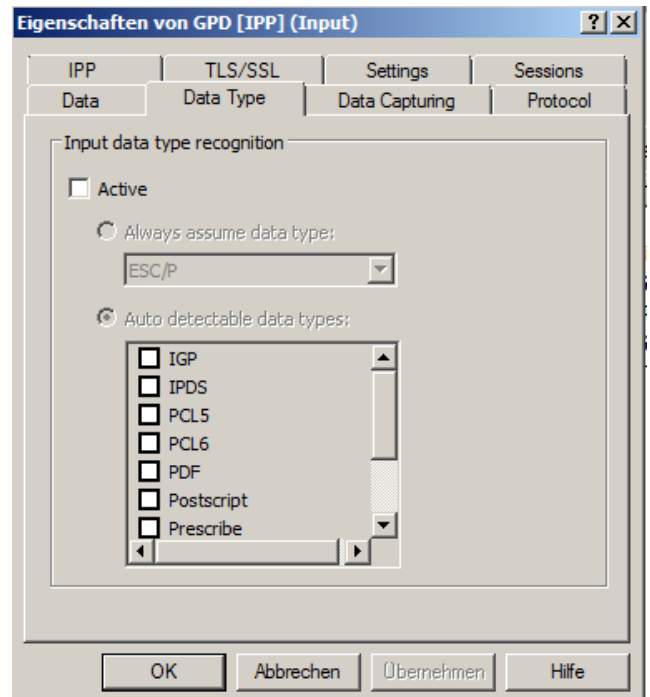
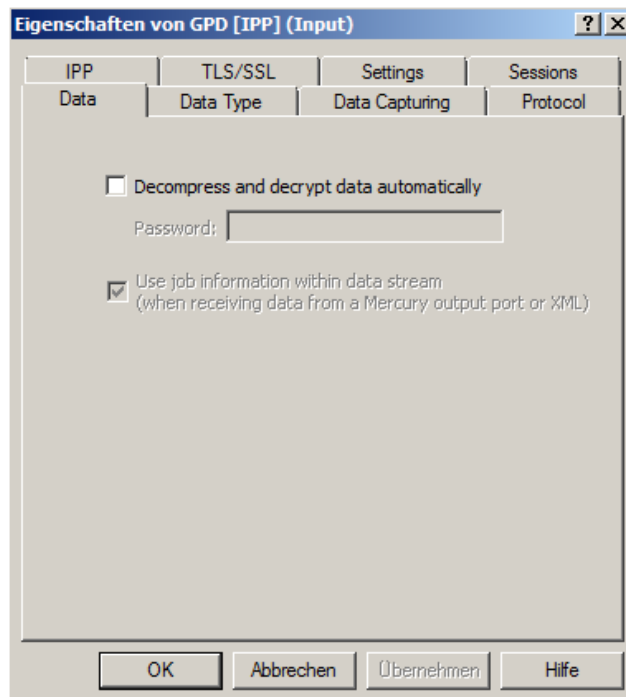
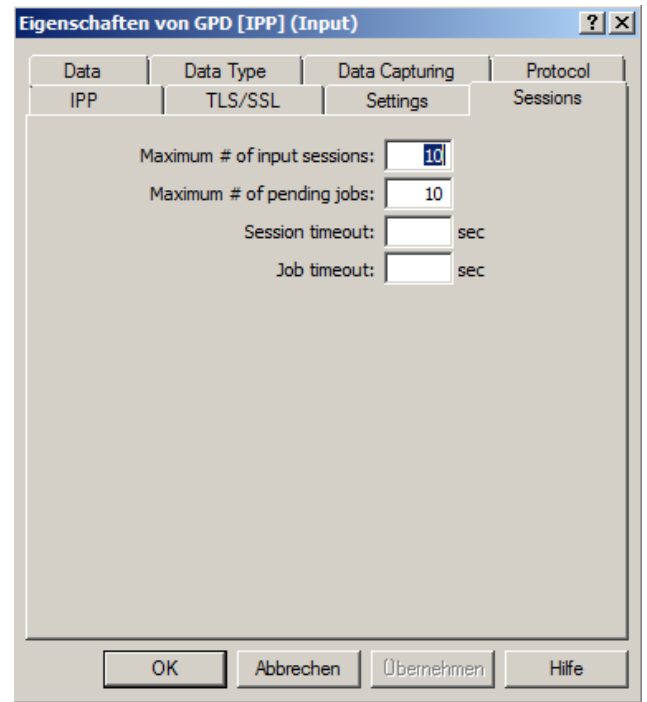
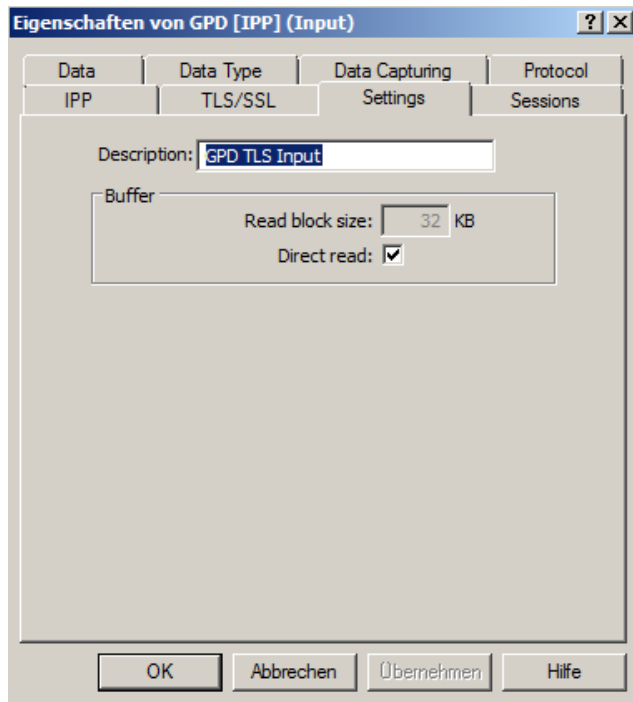


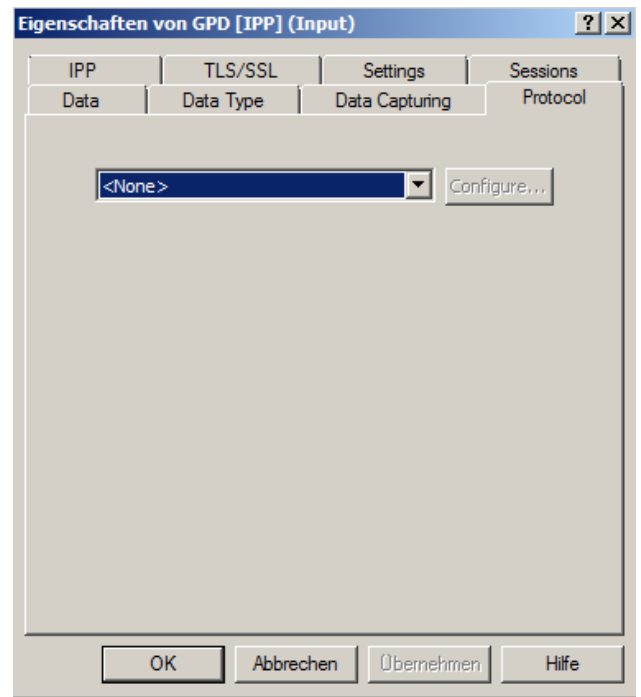
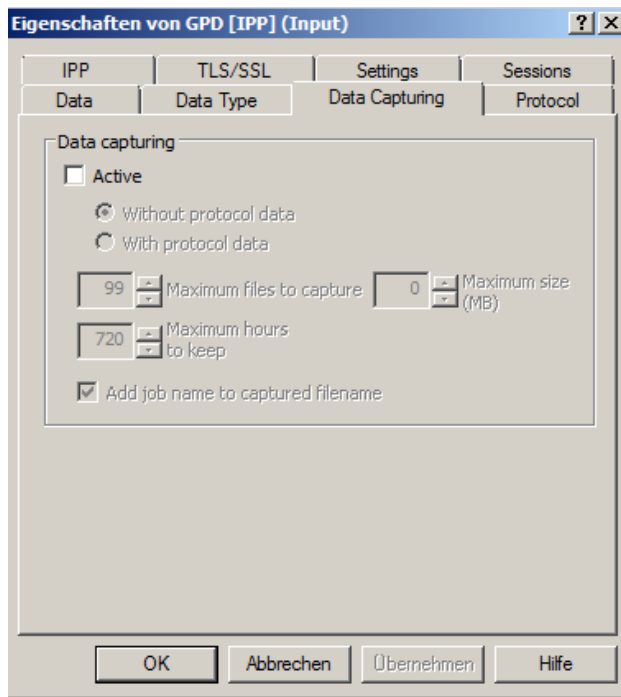


## GPD TLS Input

Furthermore, a GPD input interface is required for receiving the encrypted print data of the Global Printer Driver.

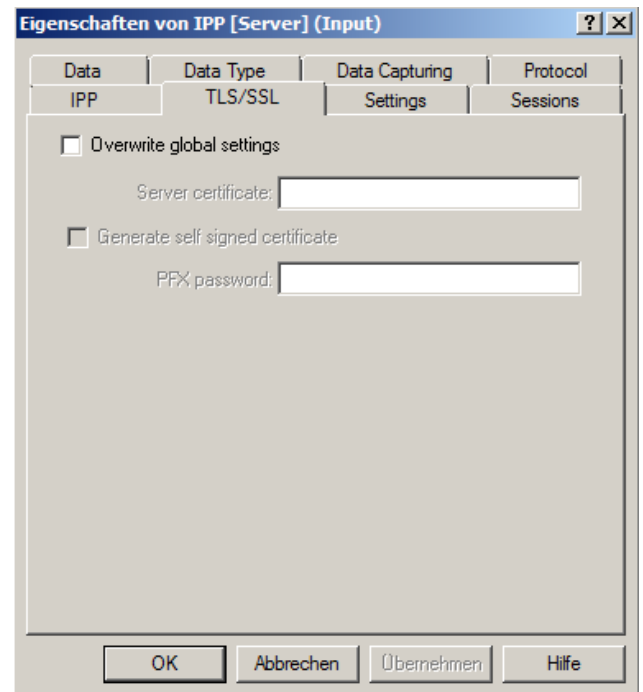
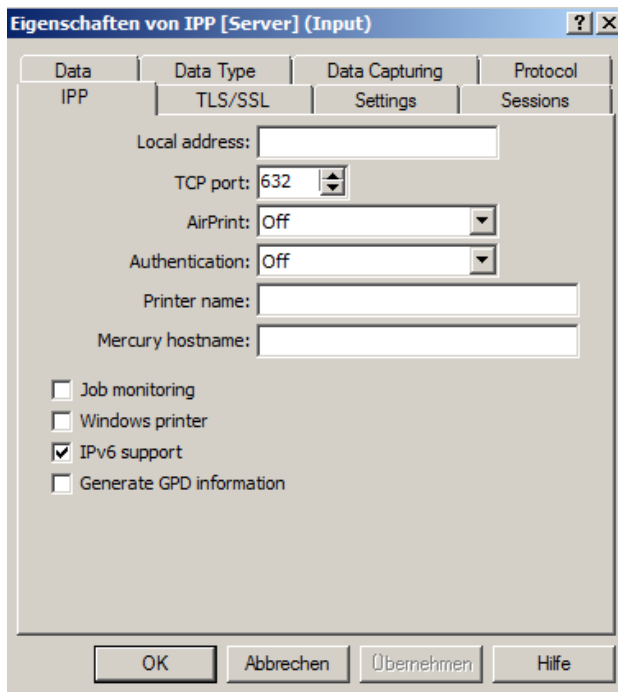


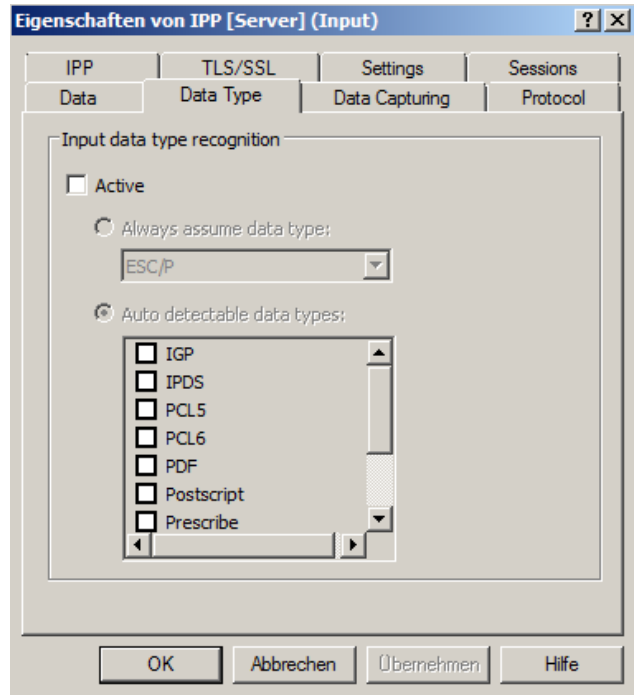
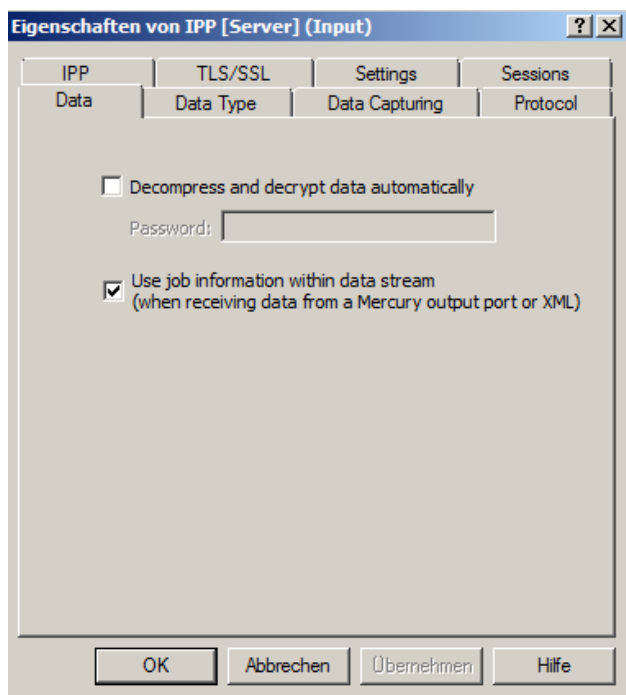
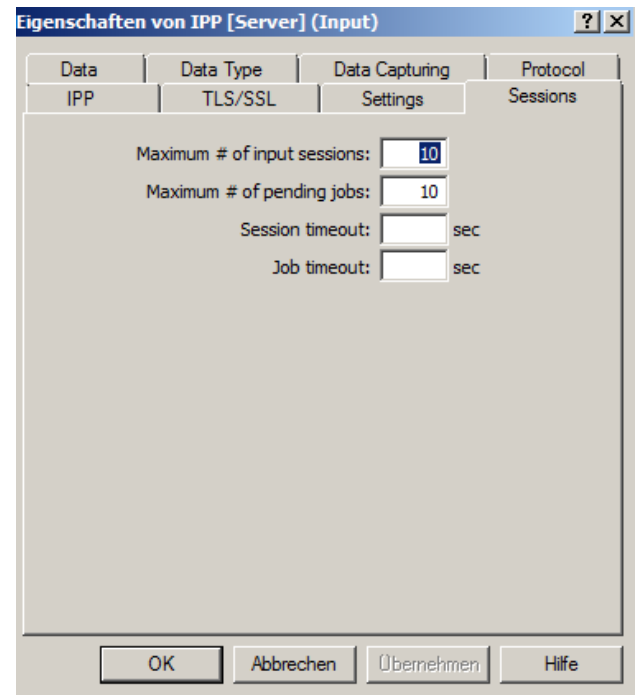
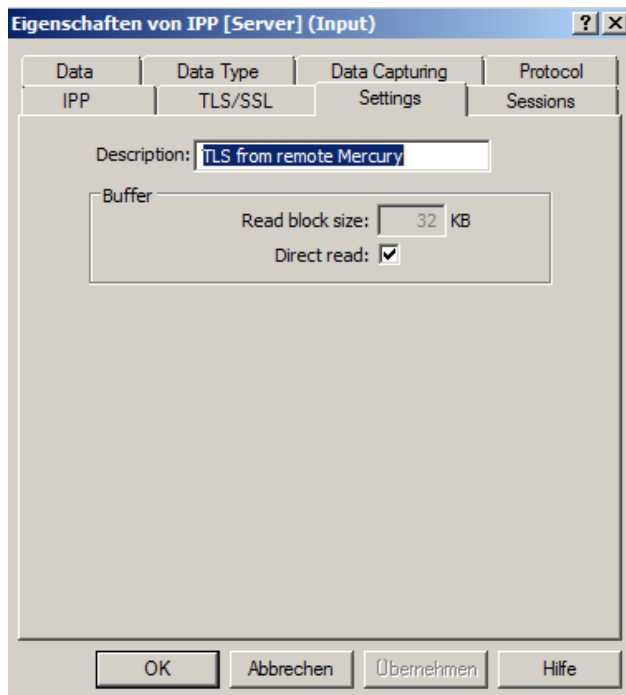


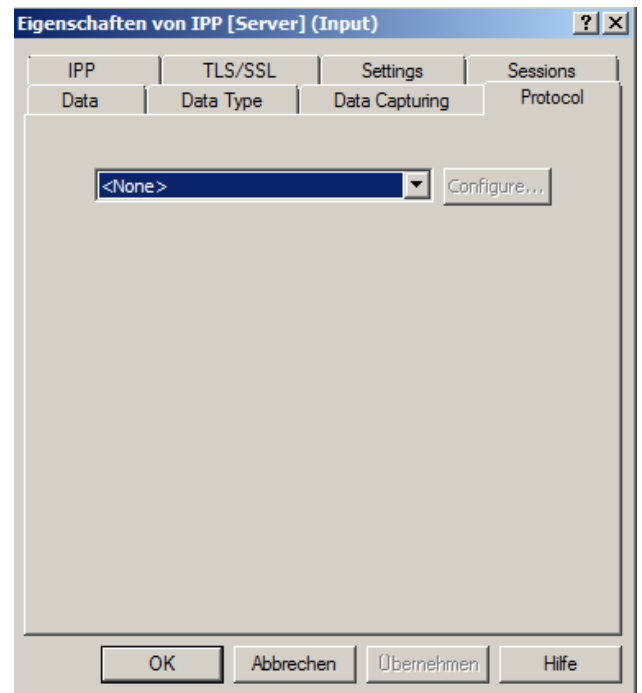
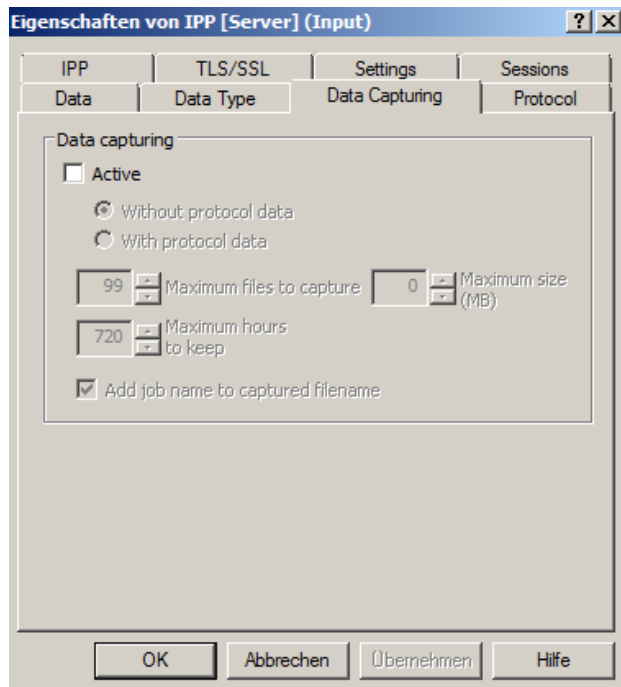


## TLS from remote Mercury

The third input interface requires encrypted input from another Mercury or Mercury index server.

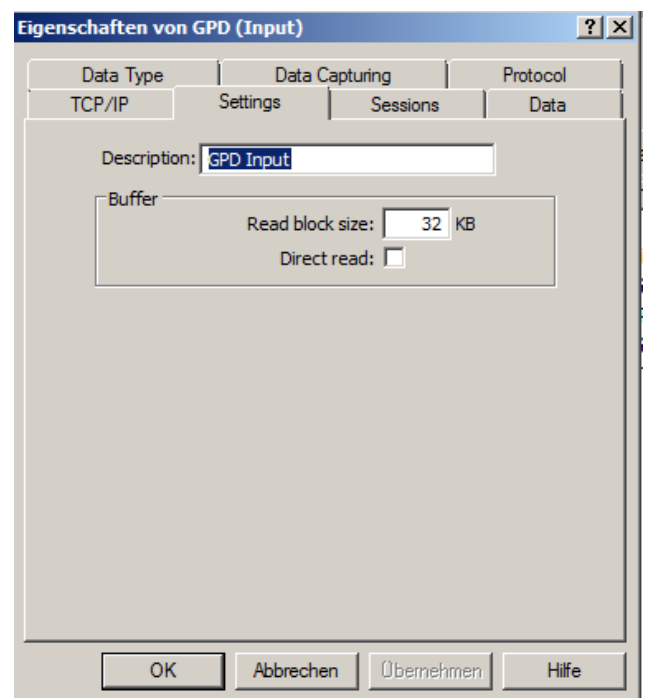
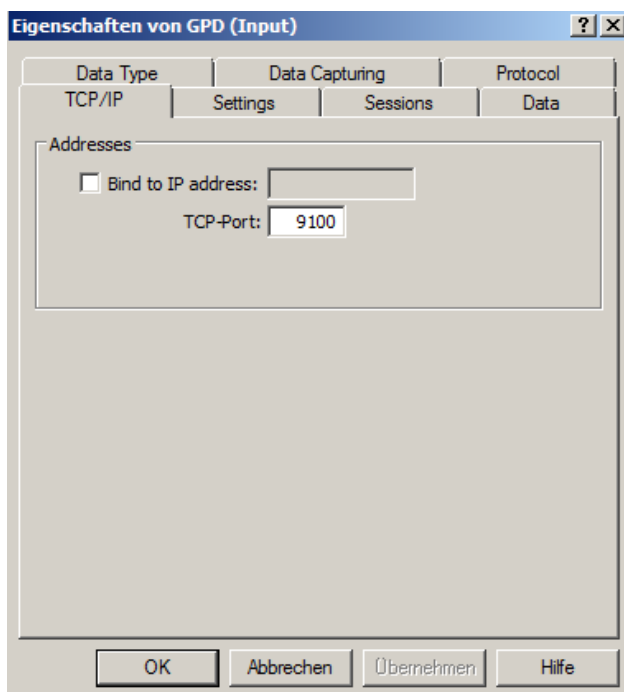






## GPD Input

Furthermore, a GPD input interface is required for the receipt of the unencrypted print data of the Global Printer Driver.



**Eigenschaften von GPD (Input)** [?] [X]

Data Type	Data Capturing	Protocol
TCP/IP	Settings	Sessions
Data		

Maximum # of input sessions:

Maximum # of pending jobs:

Session timeout:  sec

Job timeout:  sec

Persistent job ☐

OK Abbrechen Übernehmen Hilfe

**Eigenschaften von GPD (Input)** [?] [X]

Data Type	Data Capturing	Protocol
TCP/IP	Settings	Sessions
Data		

☐ Decompress and decrypt data automatically

Password:

☒ Use job information within data stream  
(when receiving data from a Mercury output port or XML)

OK Abbrechen Übernehmen Hilfe

**Eigenschaften von GPD (Input)** [?] [X]

TCP/IP	Settings	Sessions	Data
Data Type	Data Capturing	Protocol	

Input data type recognition

☐ Active

☐ Always assume data type:

☒ Auto detectable data types:

- ☐ IGP
- ☐ IPDS
- ☐ PCL5
- ☐ PCL6
- ☐ PDF
- ☐ Postscript
- ☐ Prescribe

OK Abbrechen Übernehmen Hilfe

**Eigenschaften von GPD (Input)** [?] [X]

TCP/IP	Settings	Sessions	Data
Data Type	Data Capturing	Protocol	

Data capturing

☐ Active

☐ Without protocol data

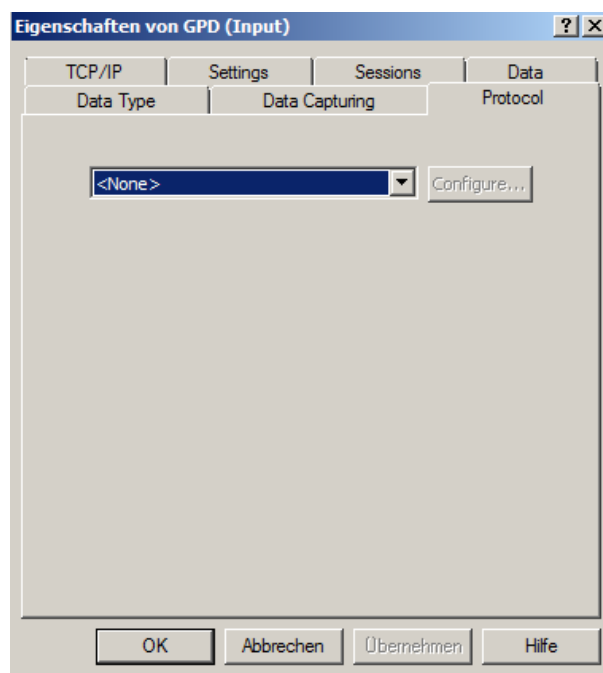
☒ With protocol data

Maximum files to capture  Maximum size (MB)

Maximum hours to keep

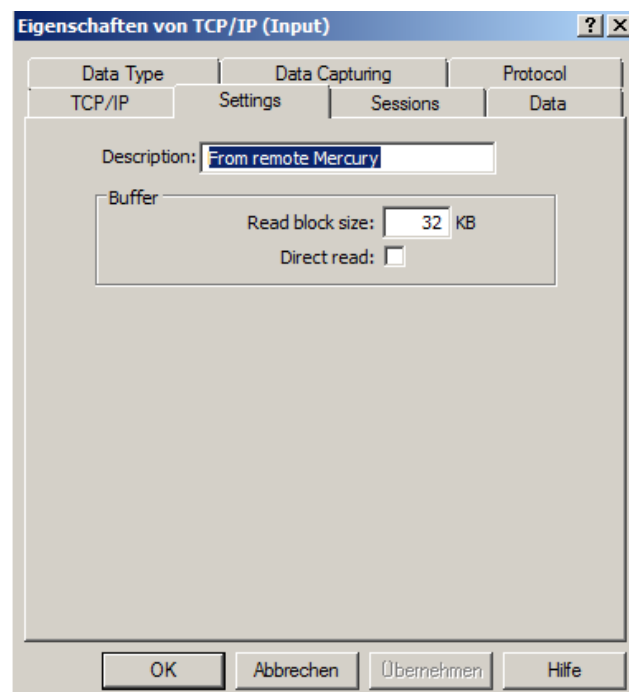
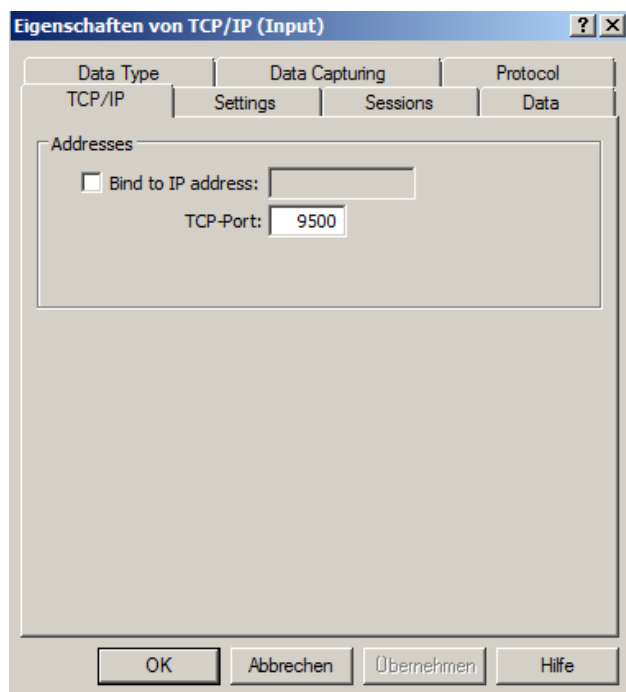
☒ Add job name to captured filename

OK Abbrechen Übernehmen Hilfe

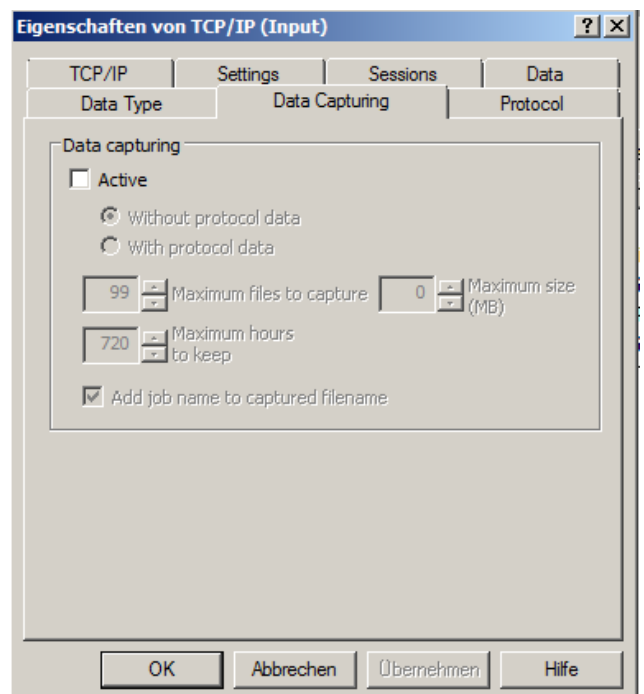
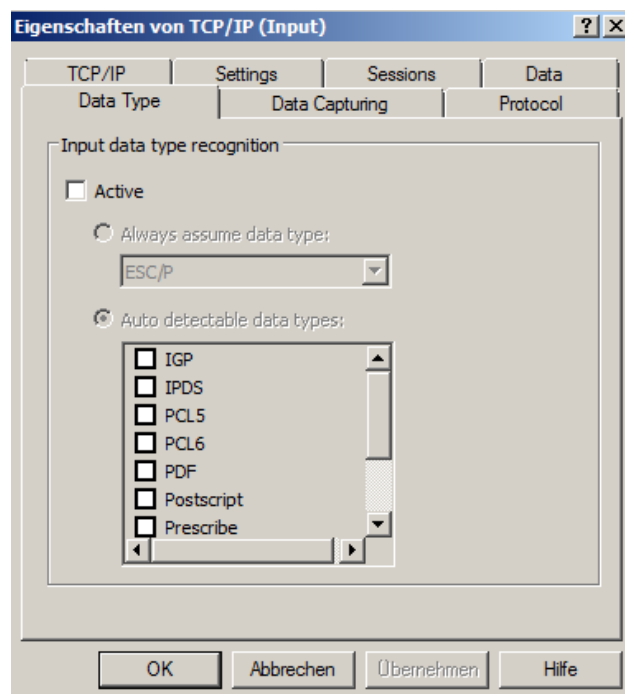
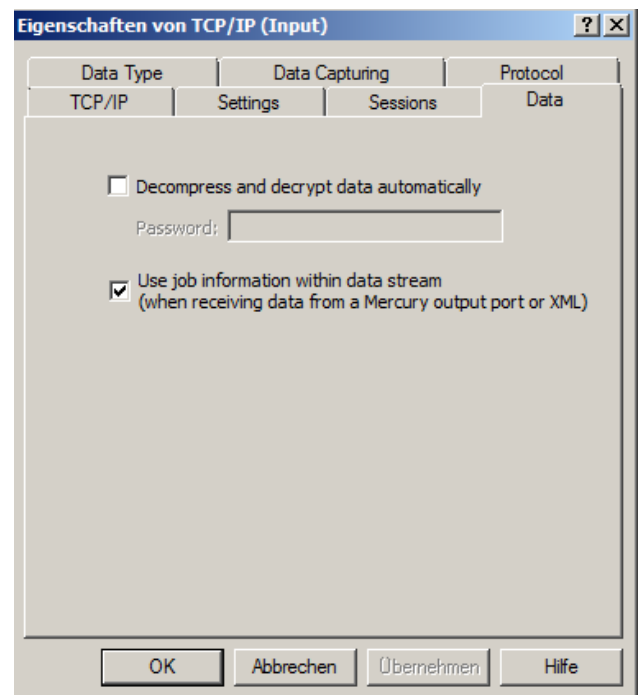
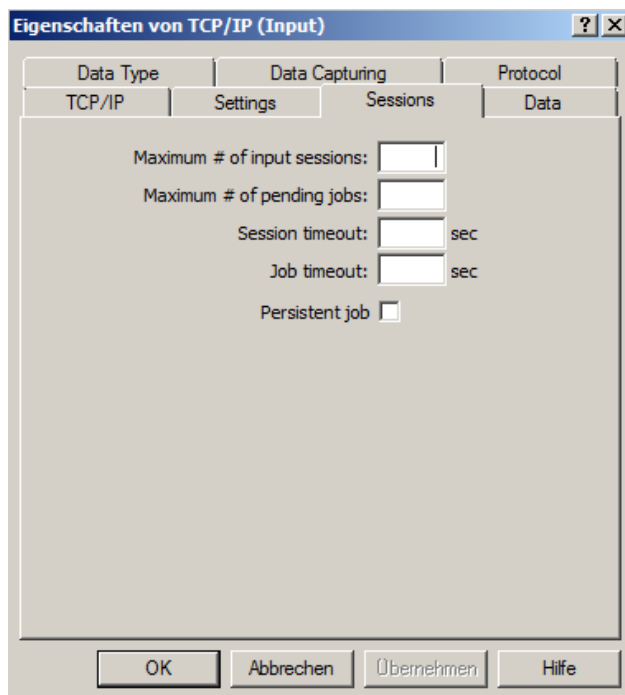


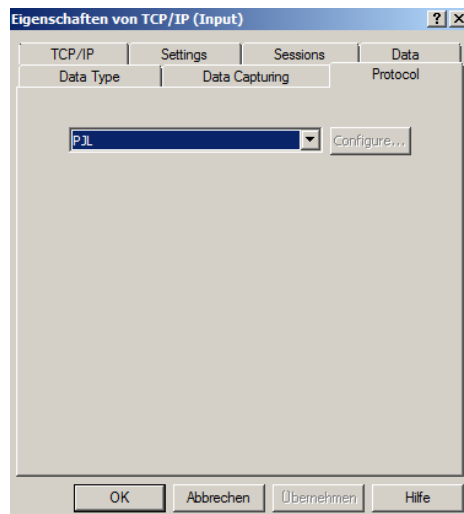
### From remote Mercury

The fifth input interface requires unencrypted input from another Mercury or Mercury index server.









## 9.4 Setting up the Mercury emulations and filters

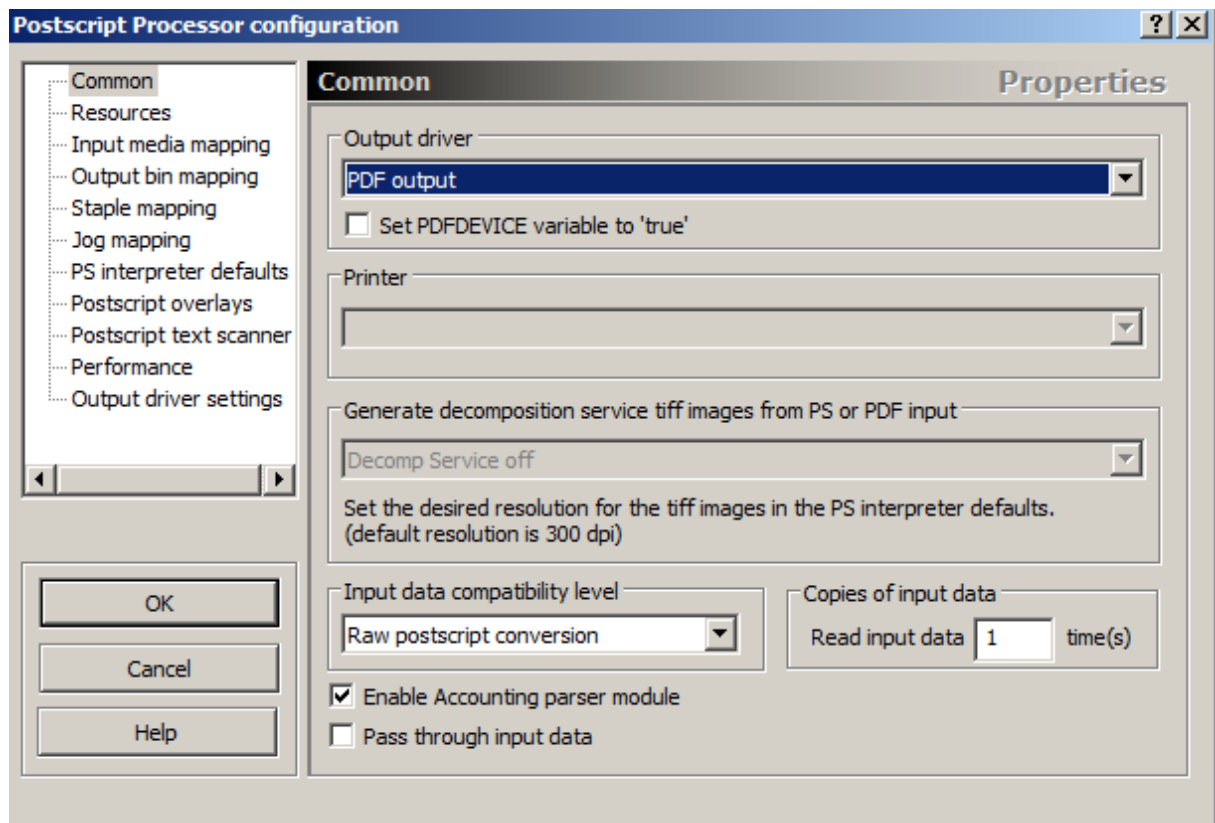
For the Mercury-wide Follow2Print and PDF workflow, a total of four Mercury emulations - a RAW emulation for transparently passing print data and three Postscript Processor emulations - are required. The operating mode of the three postscript processor emulations is dynamically switched by the respective GPD printer. If extended postscript processing has been activated in the extended print settings of the printer, the postscript data stream is interpreted, any existing overlay functions are executed and translated into standard postscript commands. If advanced postscript processing is deactivated, the postscript data is passed through transparently, as in raw emulation. With PDF generation, the PostScript data is then converted from PostScript Processor Emulation to PDF format.

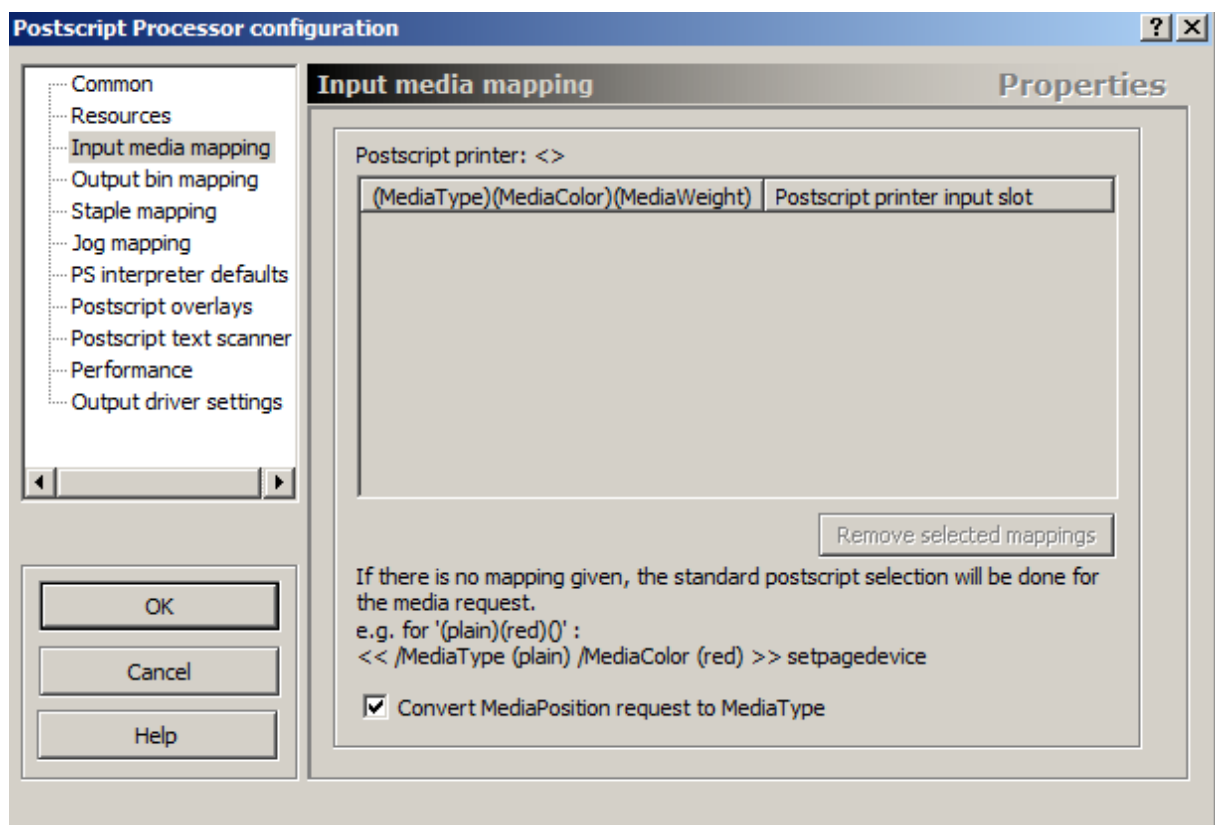
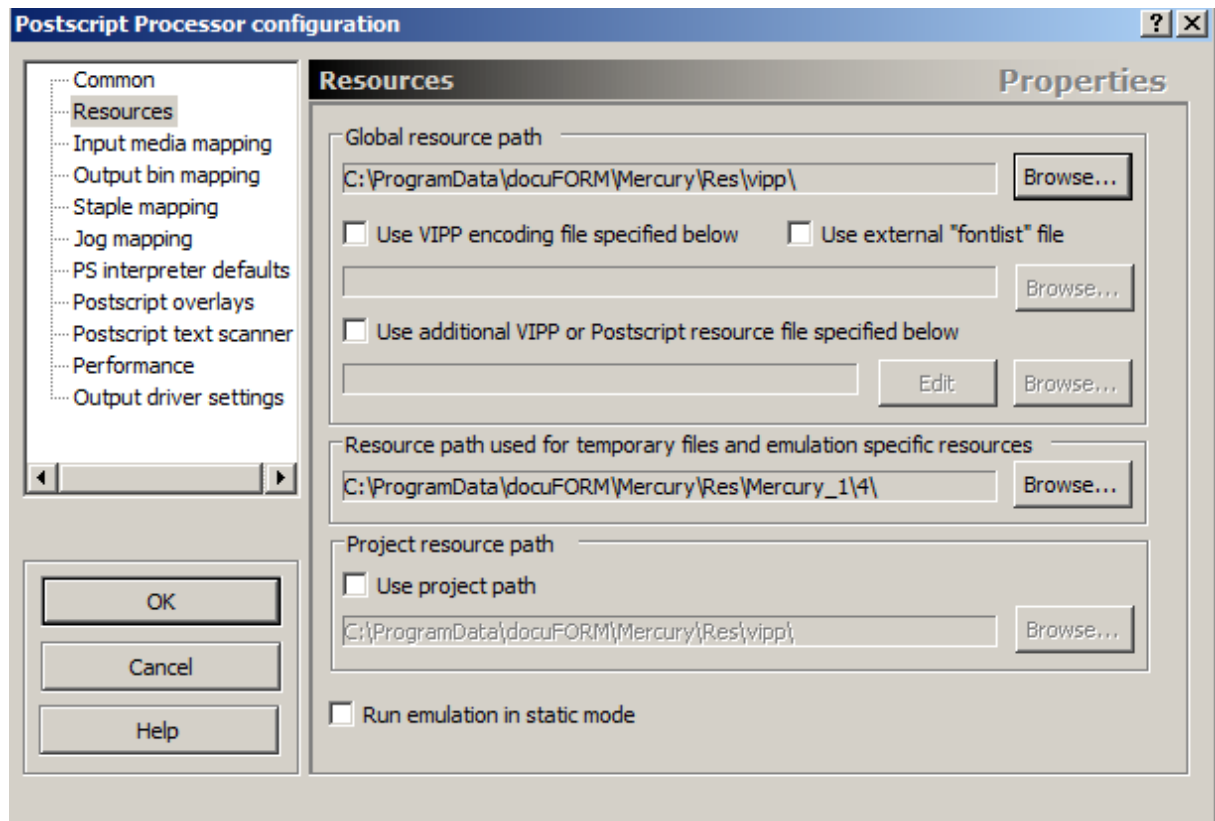
In addition to the Postscript Processor emulation for 'Normal + PDF Print', a Job Copier Filter Module is also connected as input filter. This module generates a copy for the GPD printing with additional generation of PDF documents from each processed GPD print job and for further processing and PDF generation through a Postscript Processor emulation.

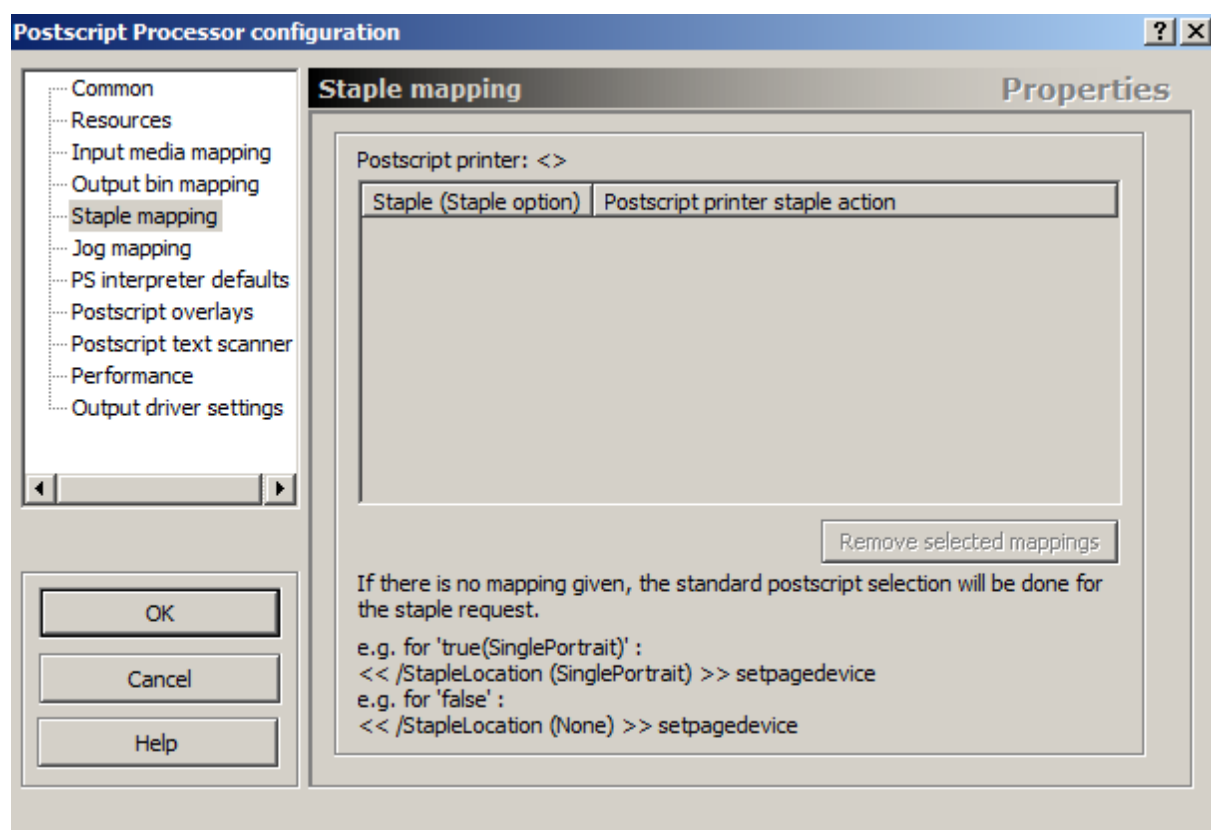
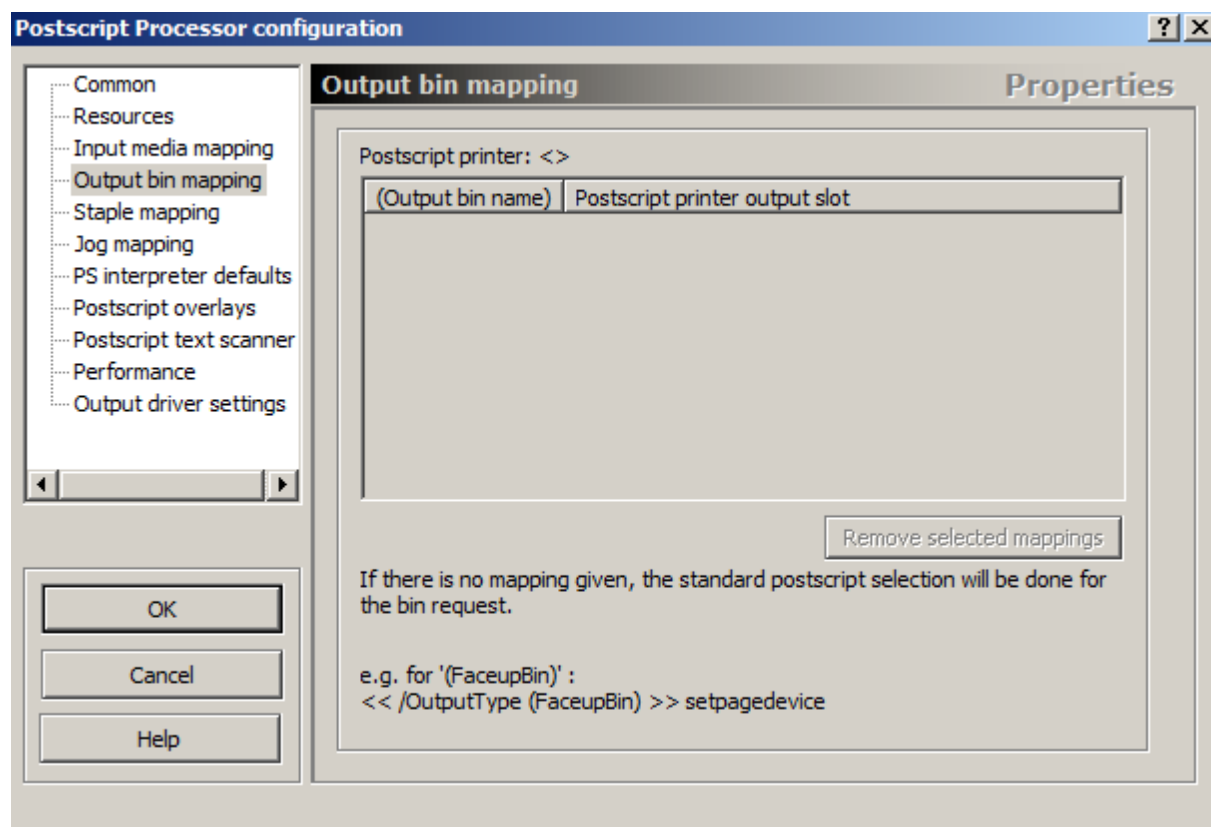
The other configured Mercury emulations do not require any additional filter modules. The configuration settings of the individual emulations are depicted in the following screenshots. If no screenshots exist for individual configuration pages, this means that the default settings can be adopted here.

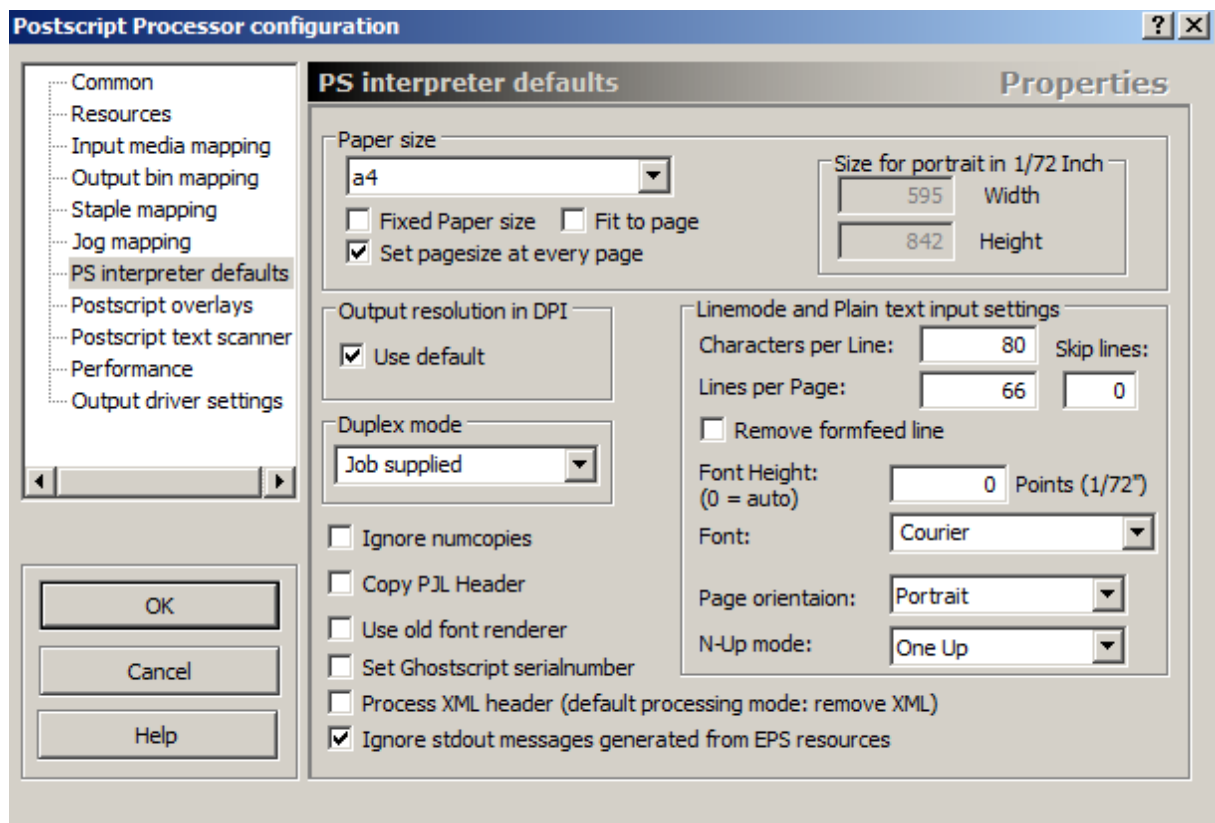
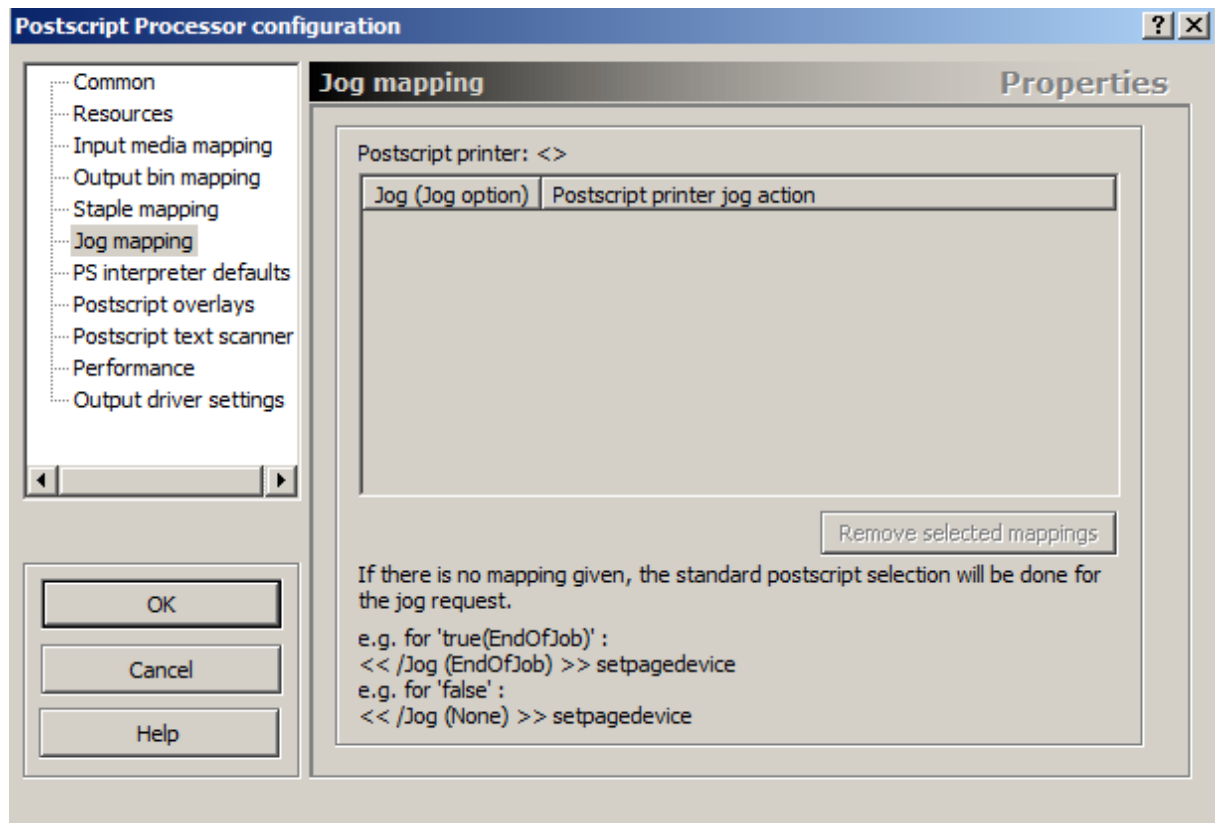
Activating the Accounting Parser module in the "Common" properties of Postscript Processor emulations is only necessary if the advanced accounting functions incl. color page recognition are to be used in the Mercury and FSM installation. If only the page count of a print job needs to be determined, this feature should be disabled to avoid unnecessary server load through the additional in-depth analysis of print jobs.

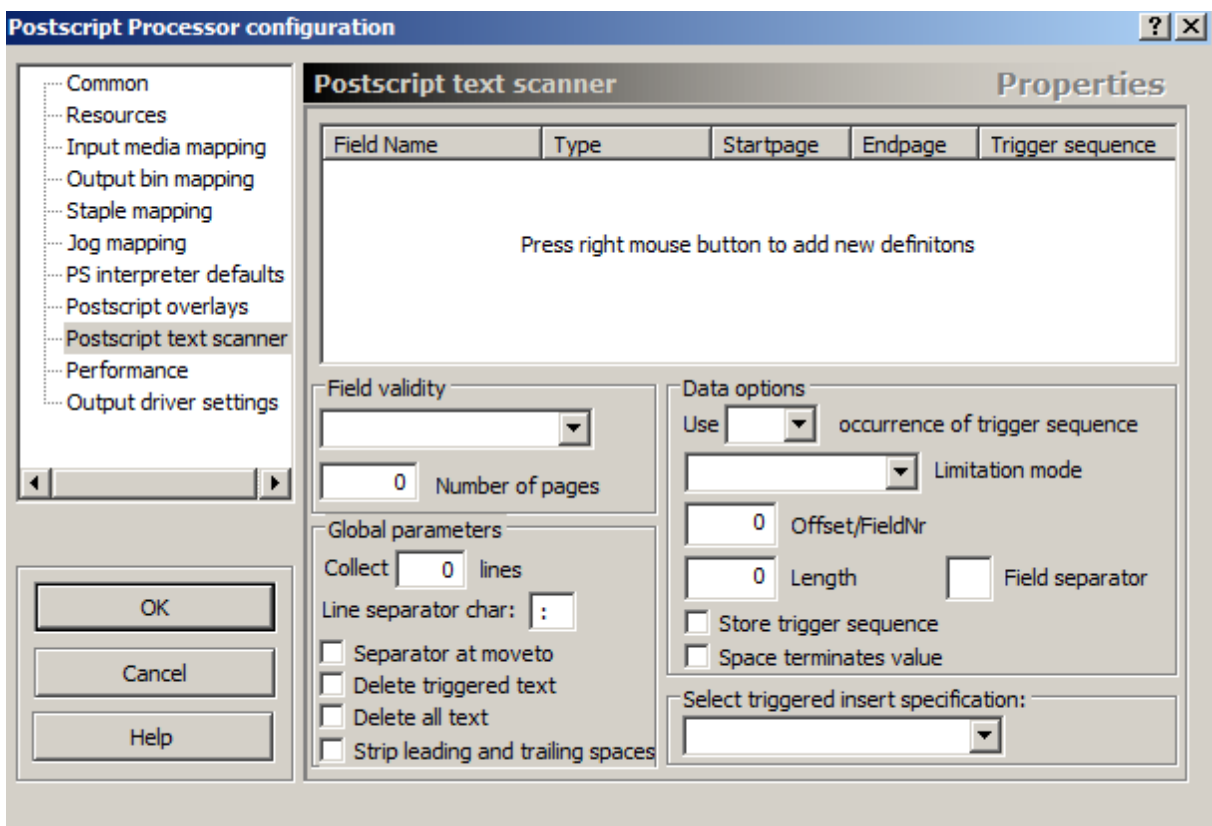
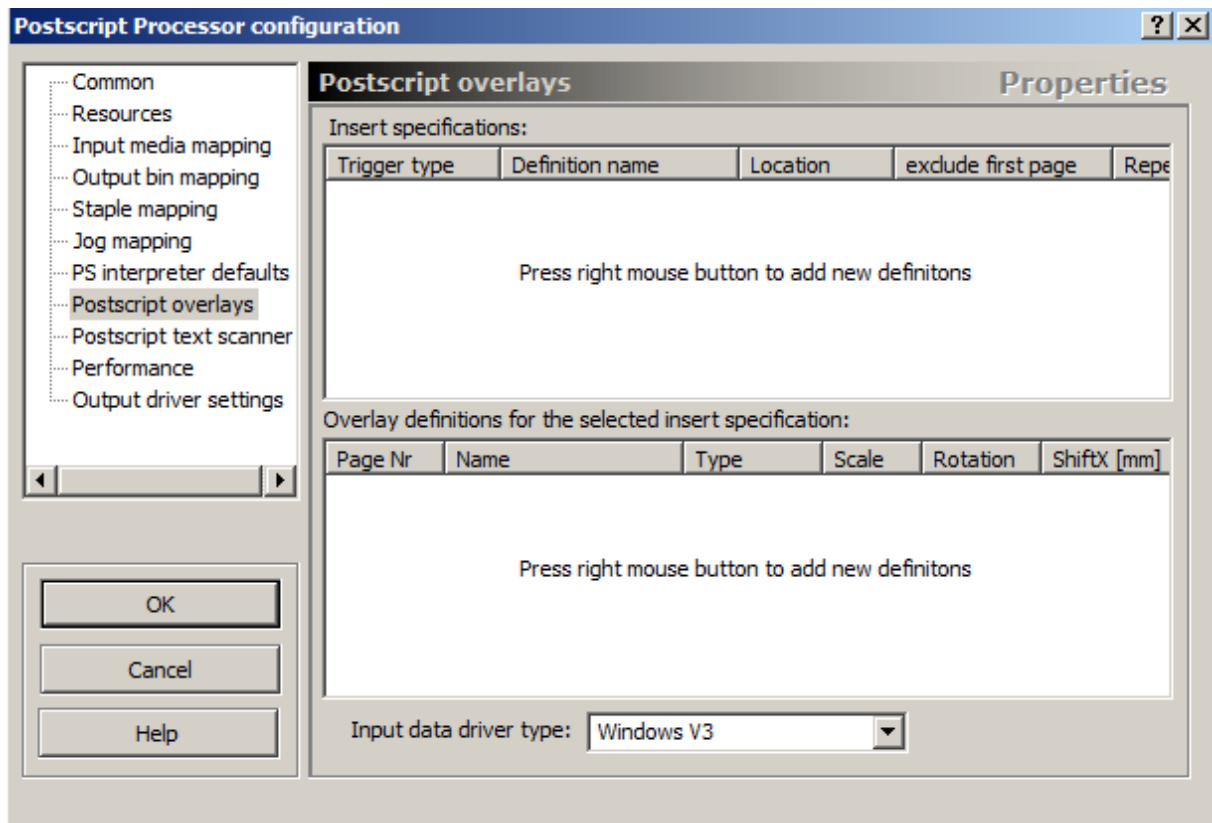
## PDF Conversion

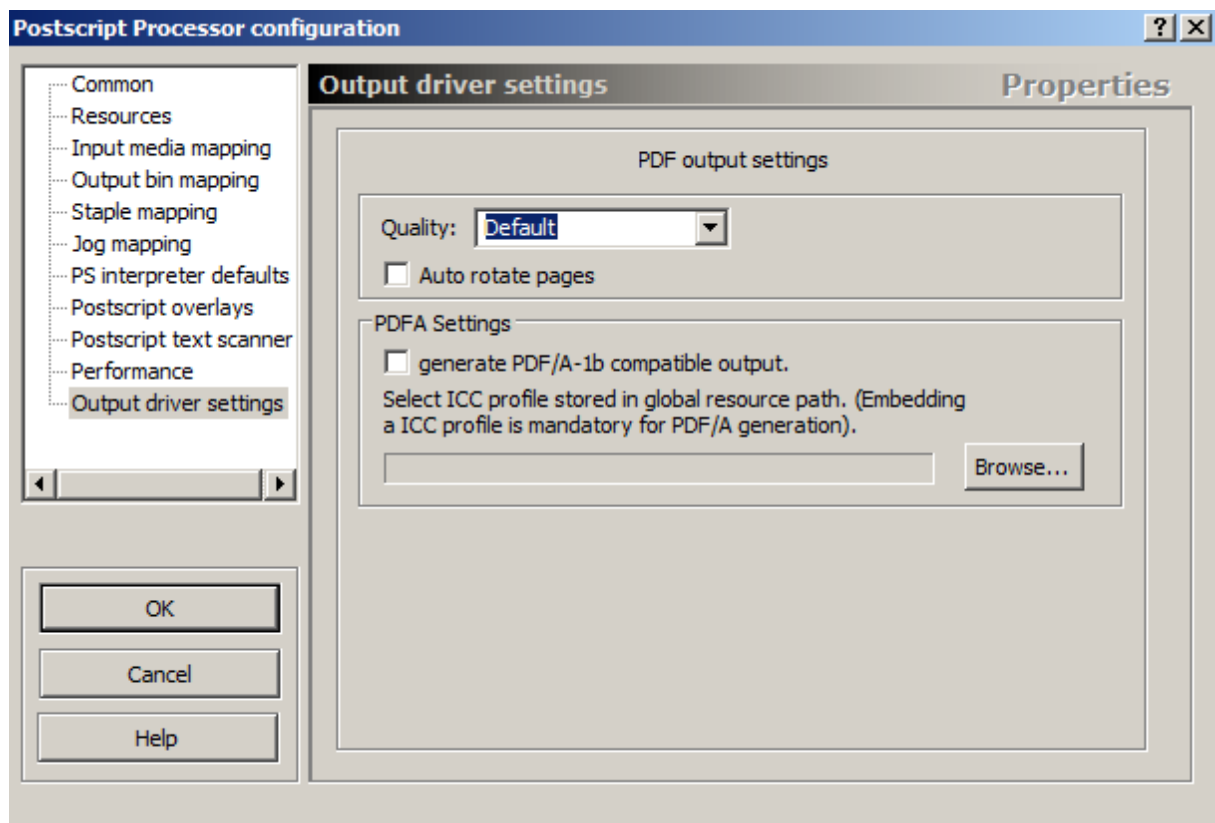
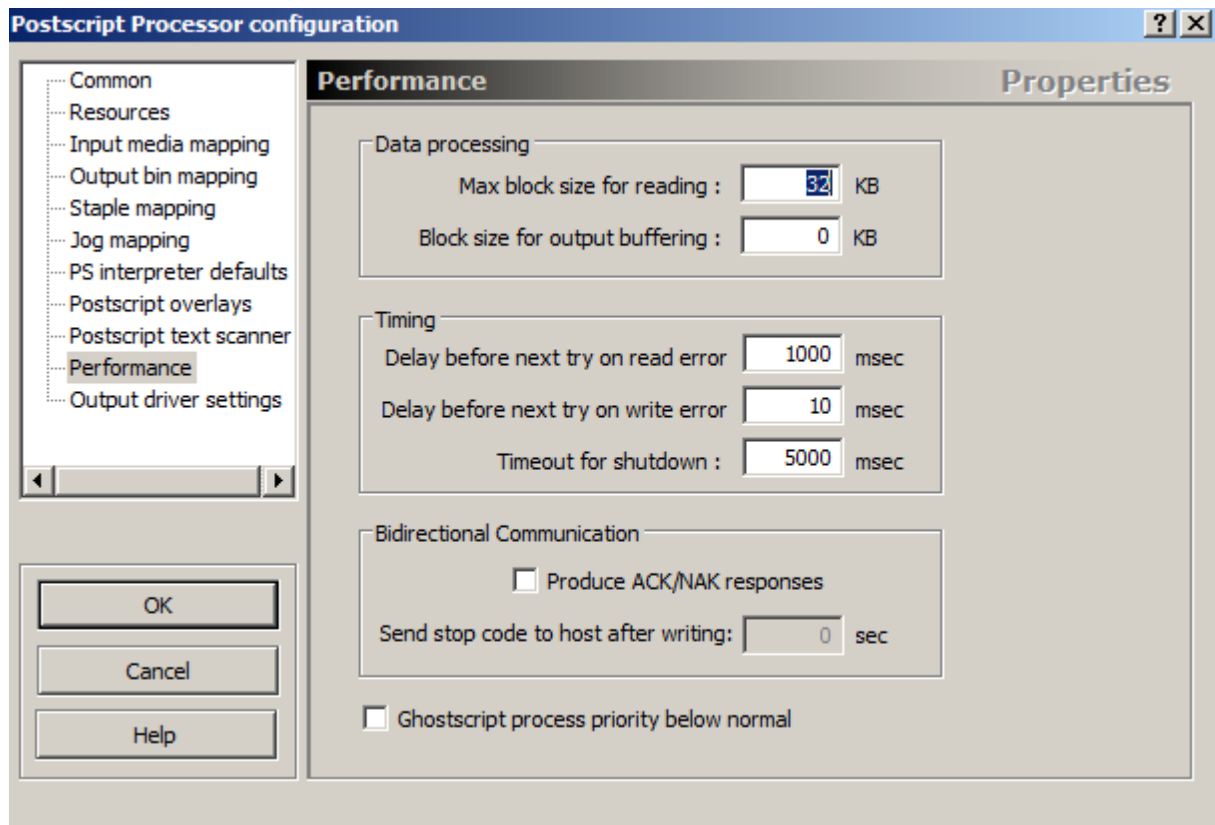






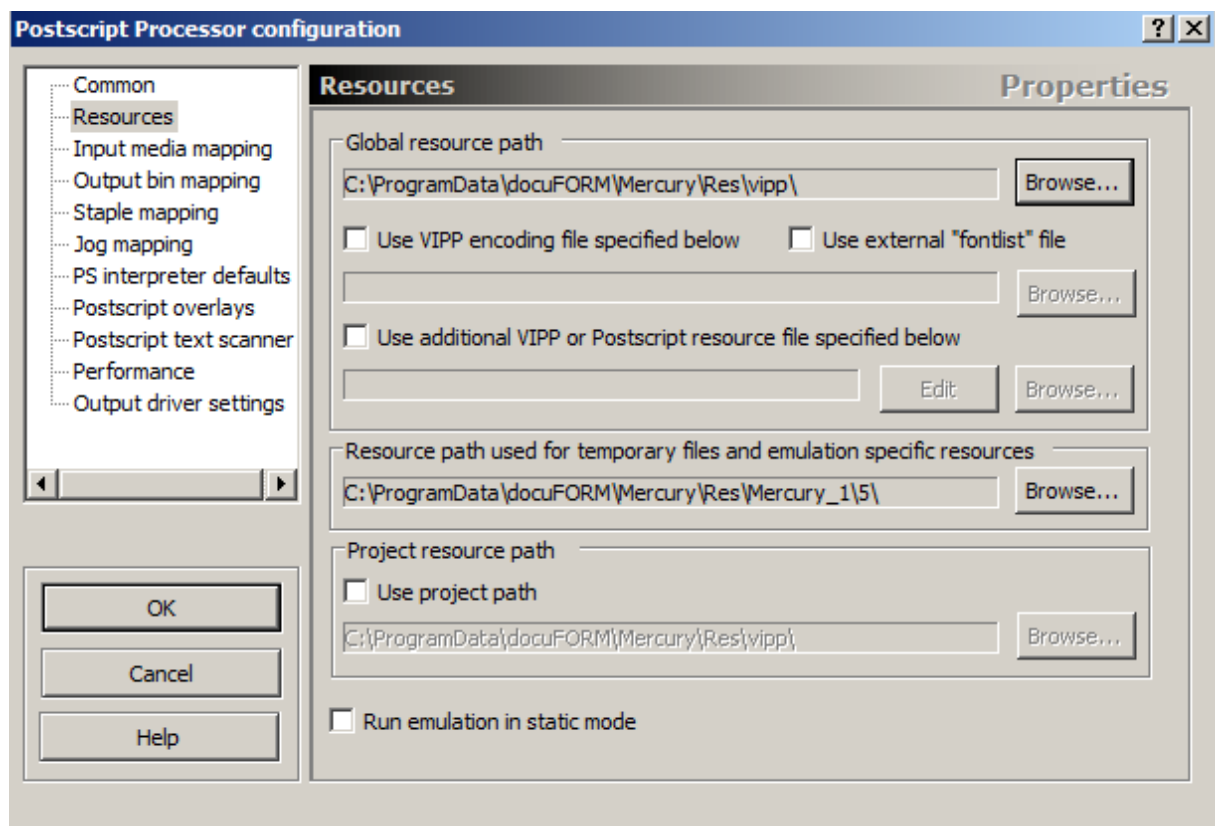
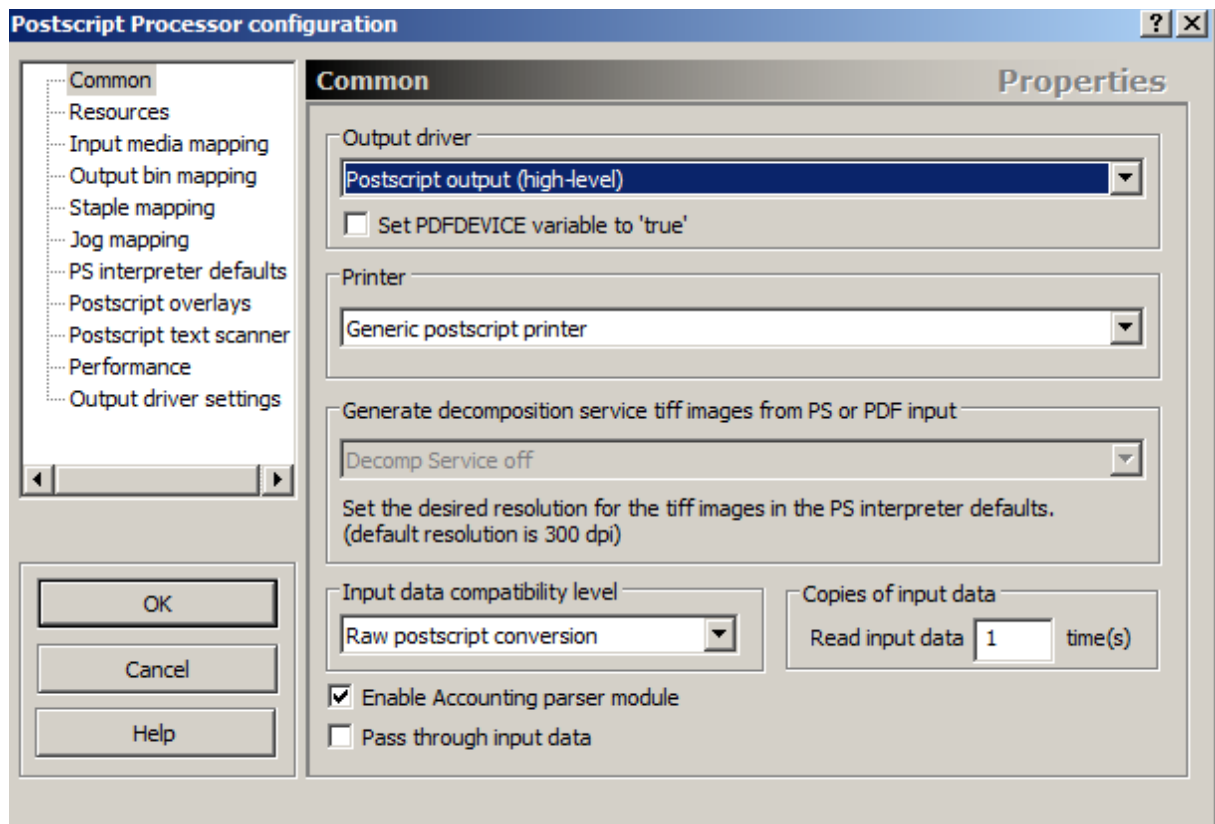


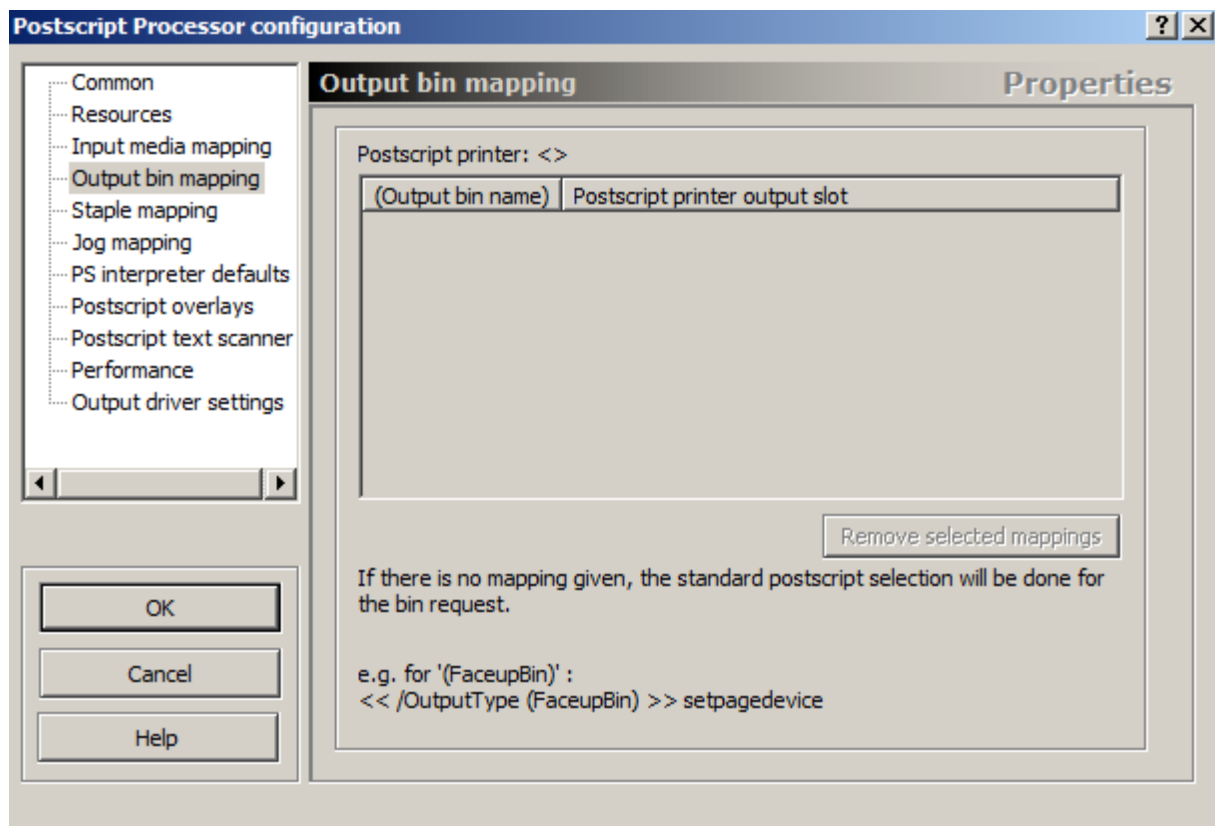
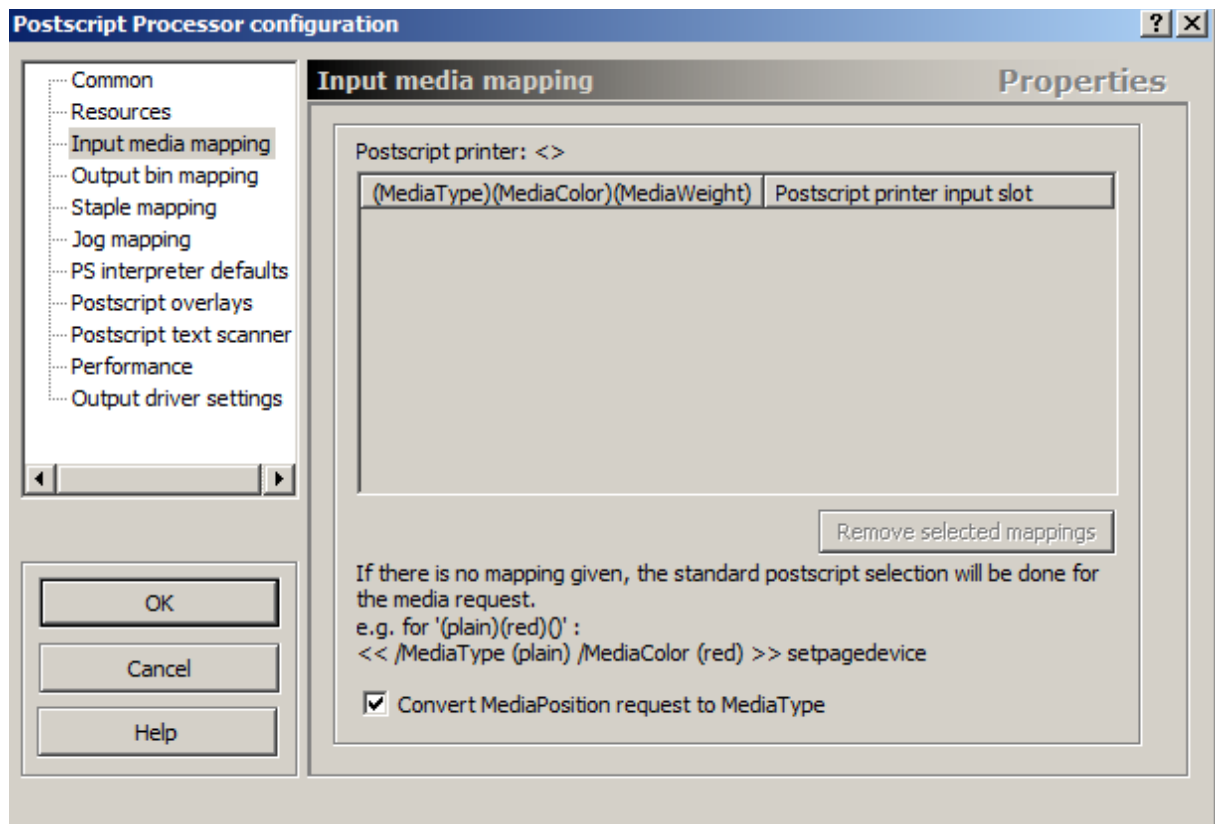


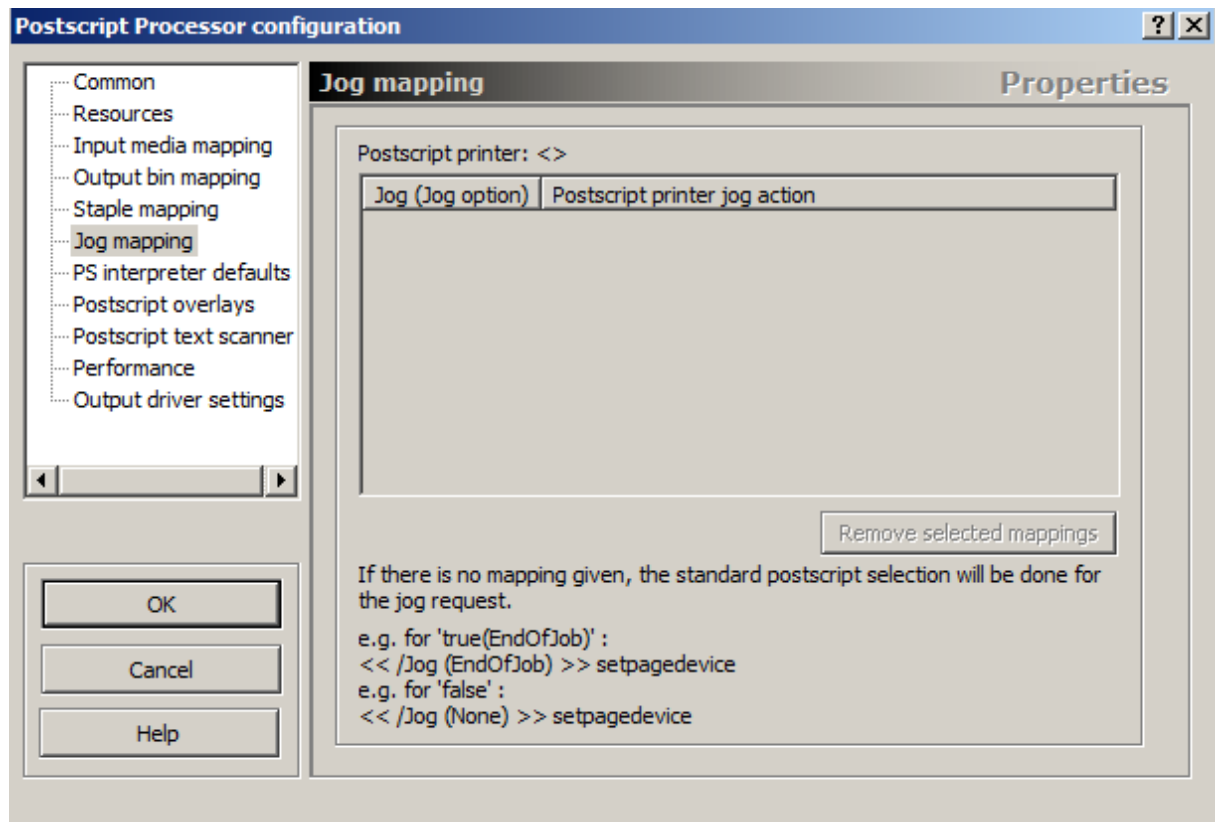
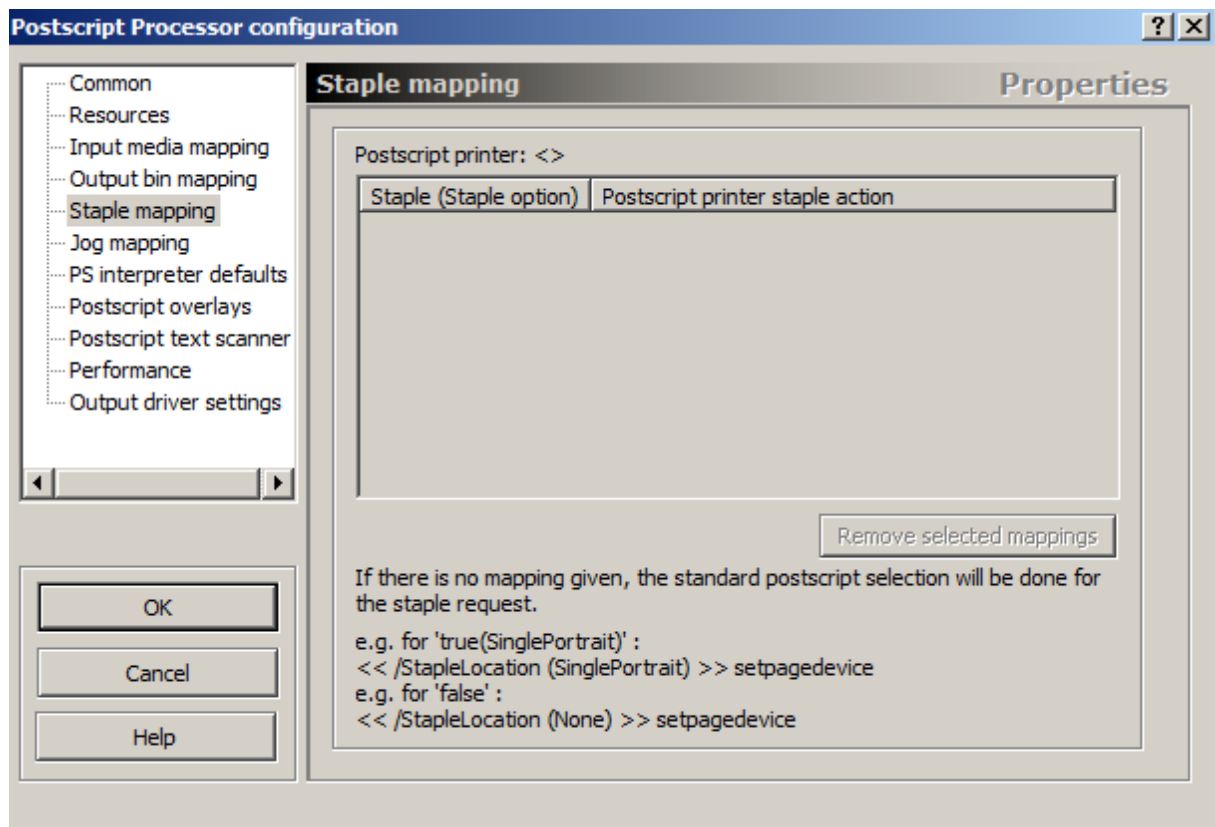


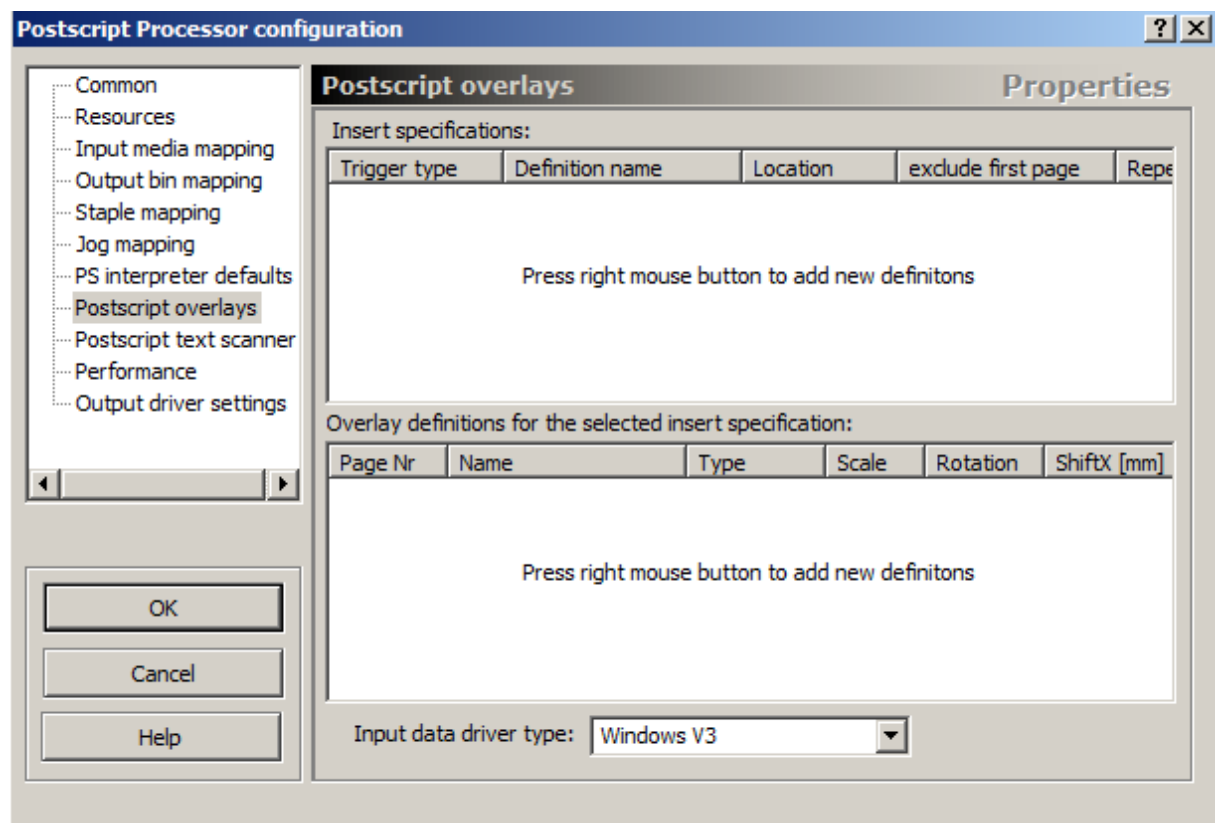
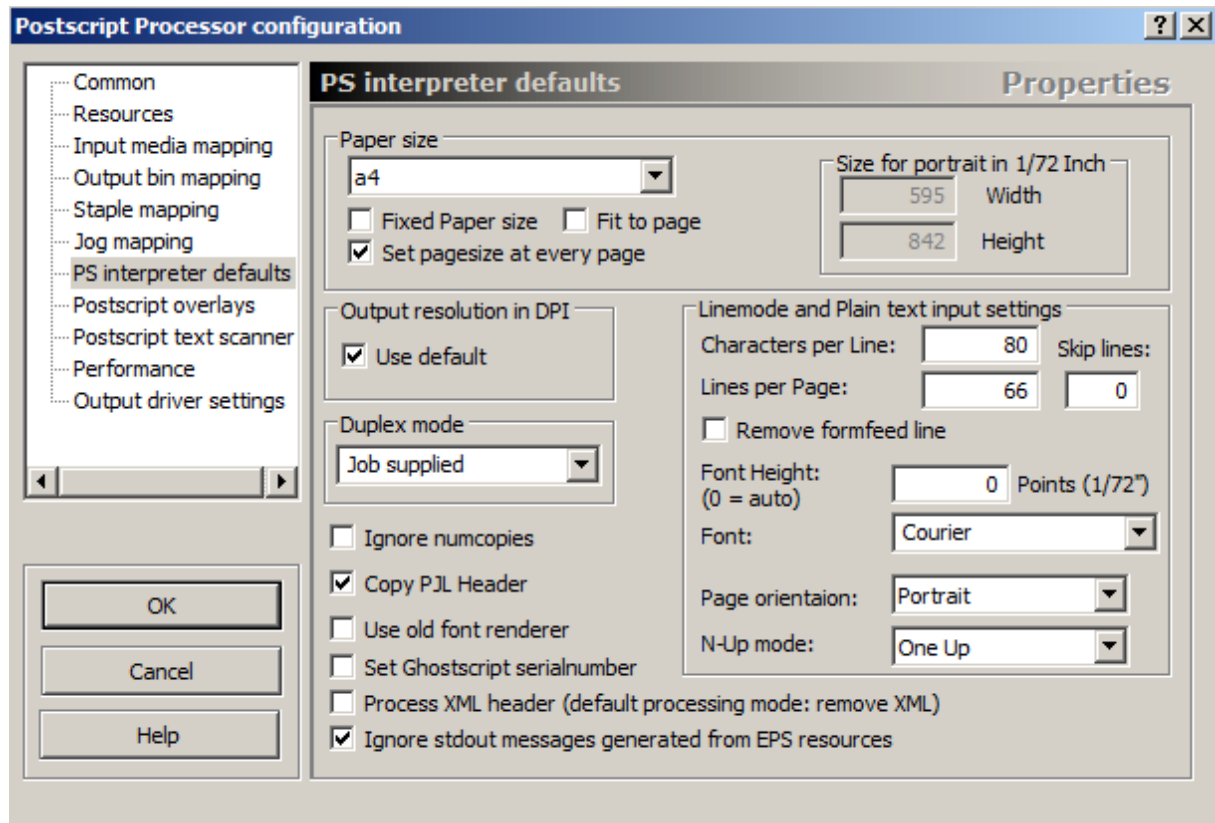


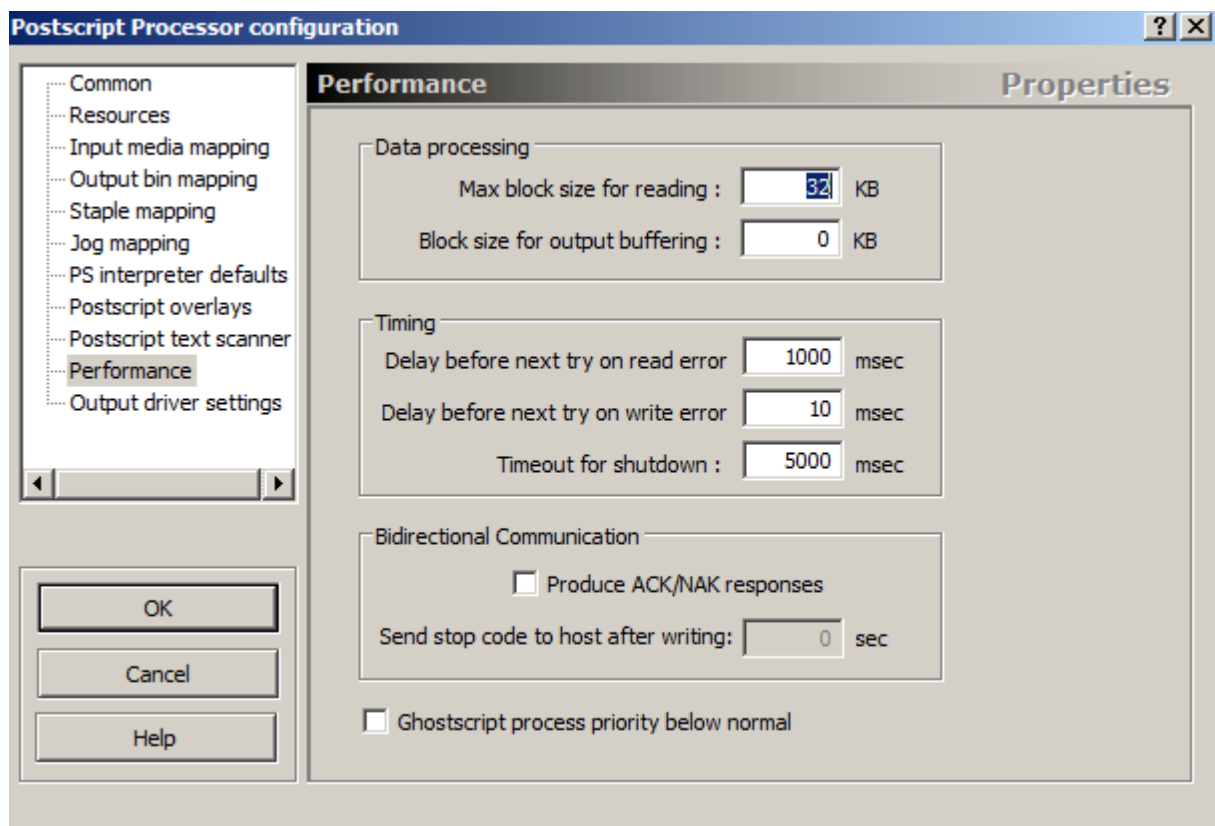
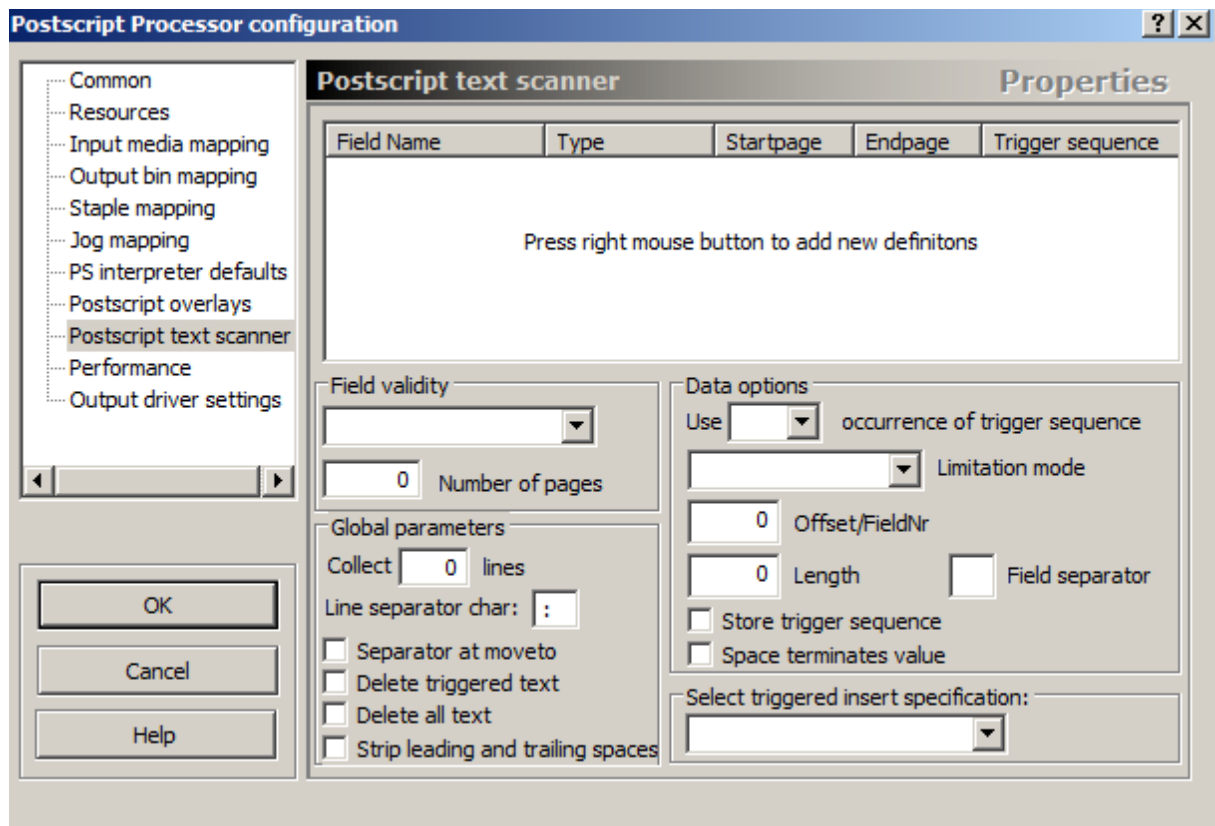
## Normal Print

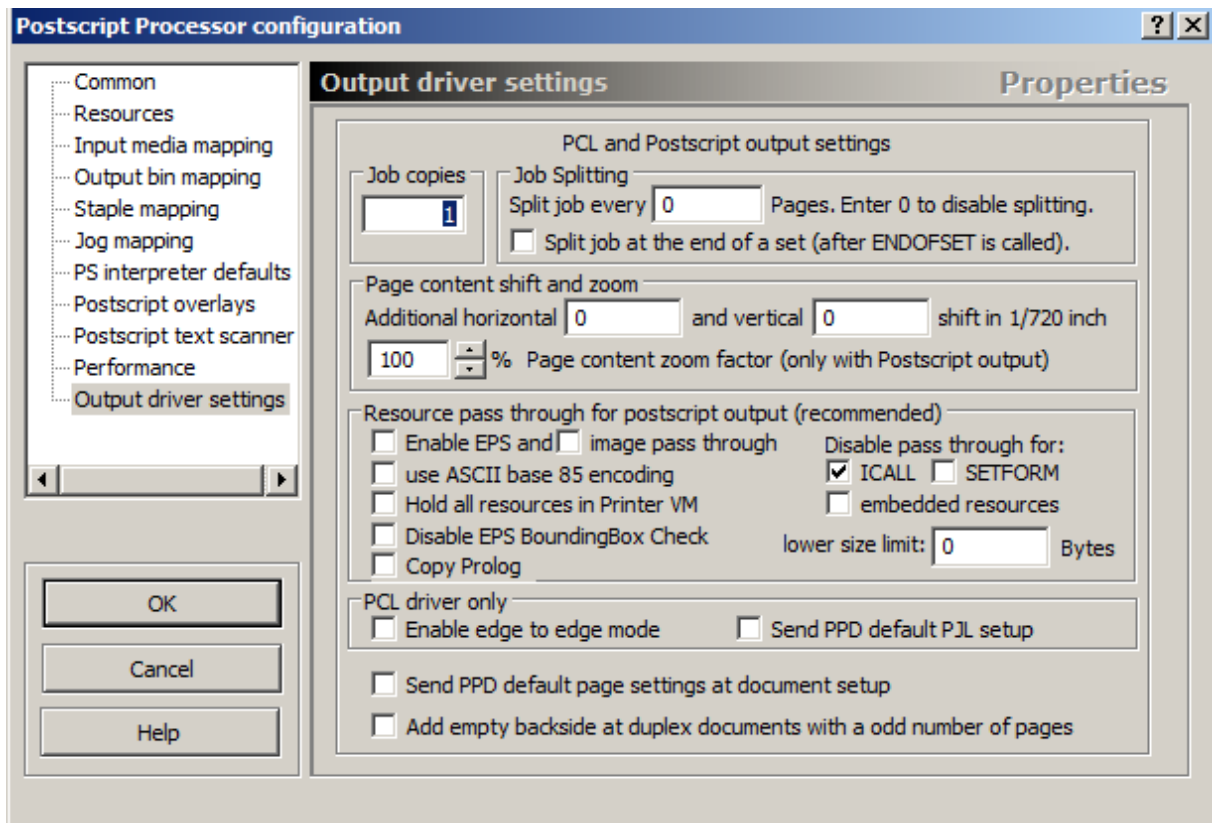




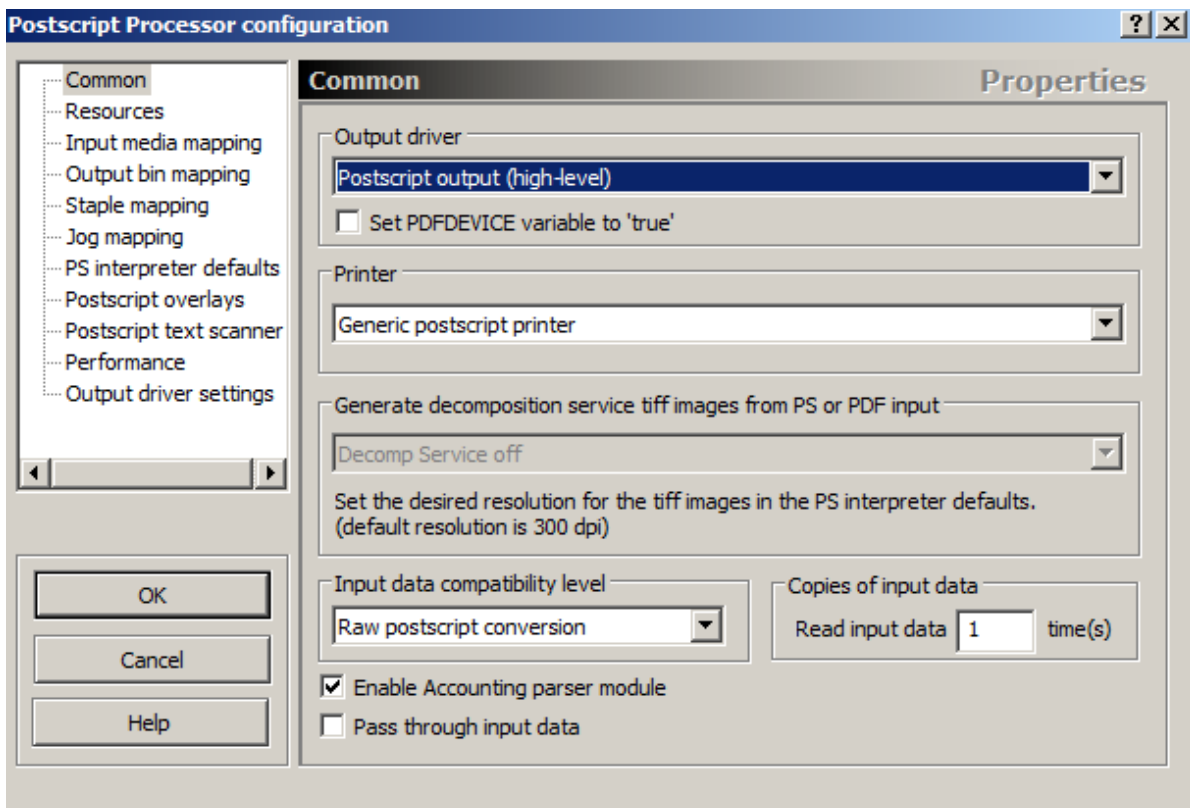


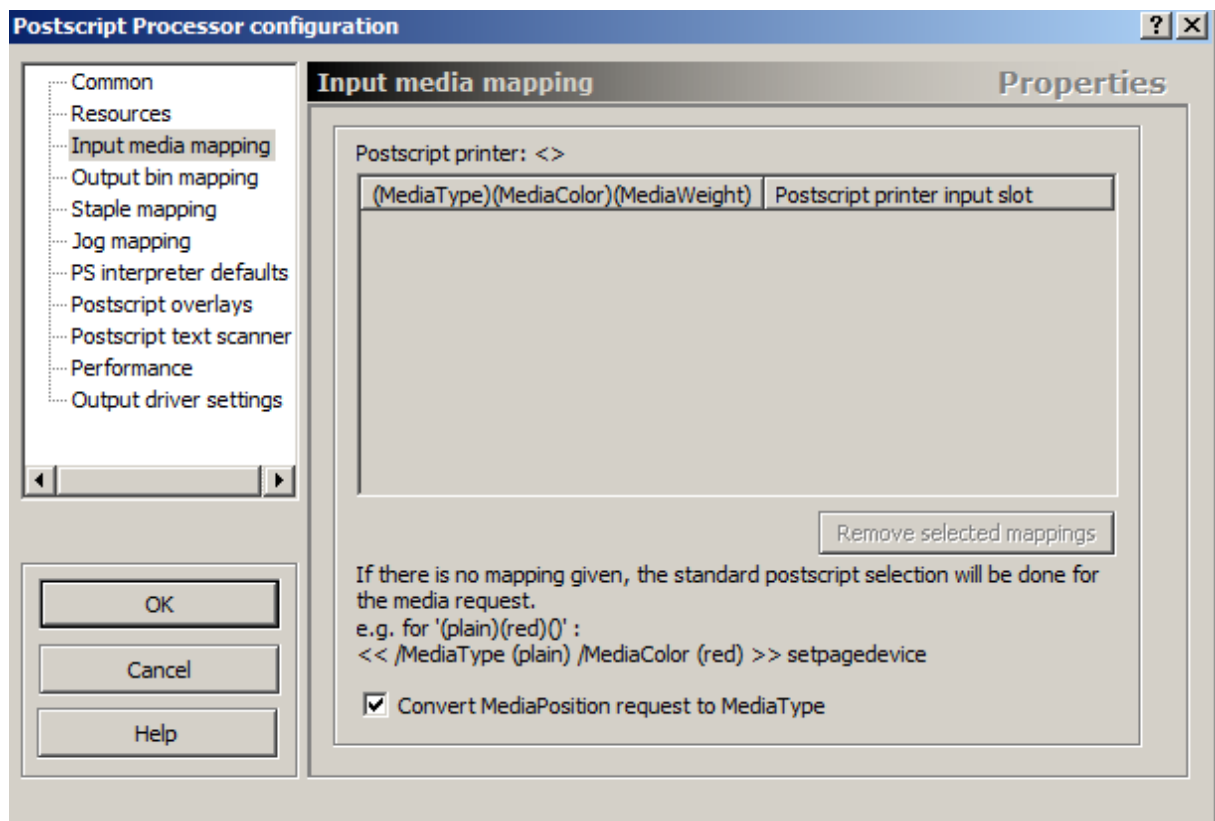
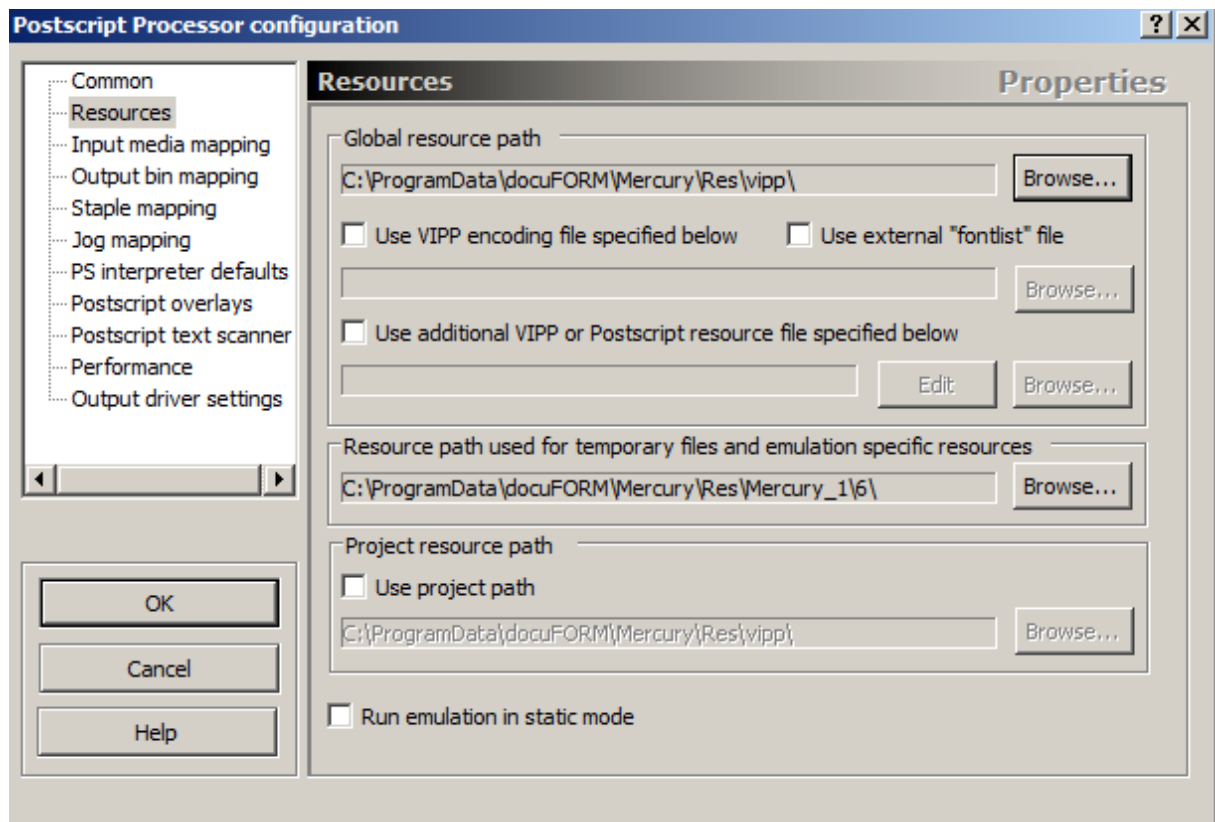


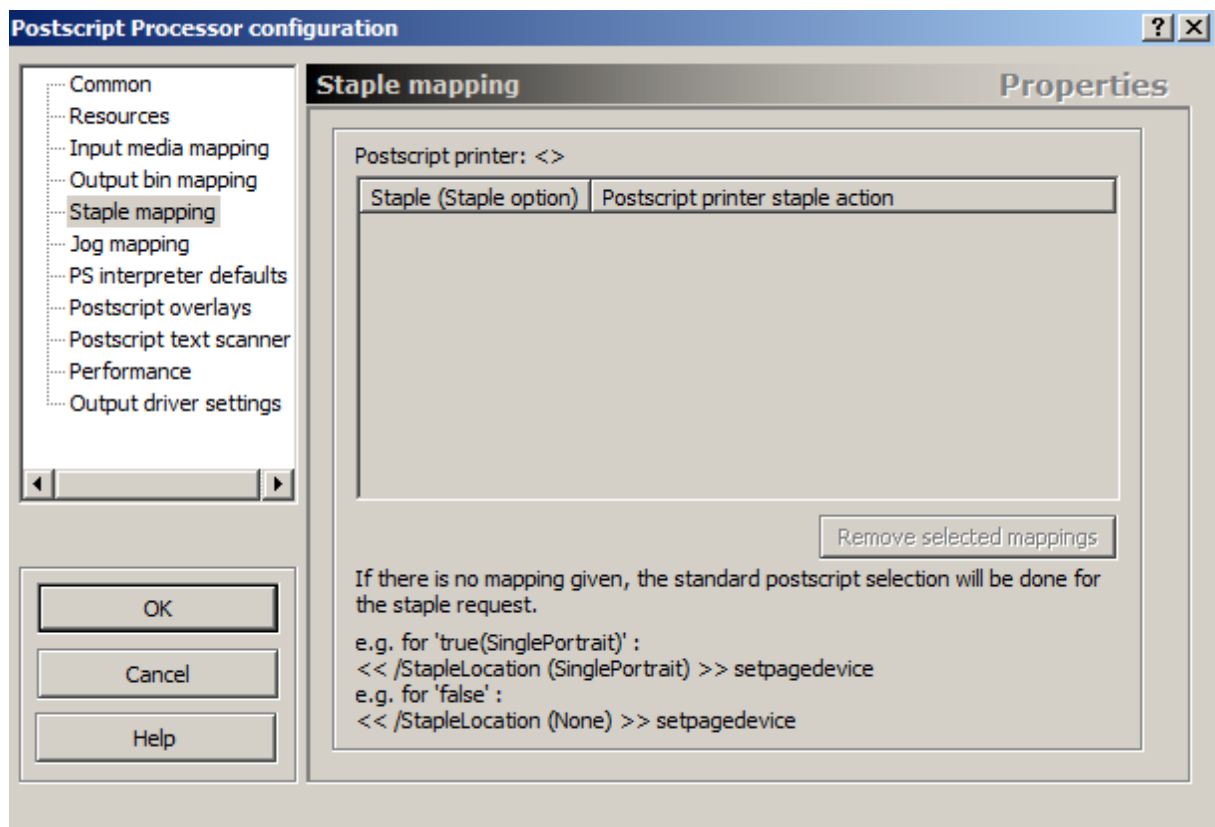
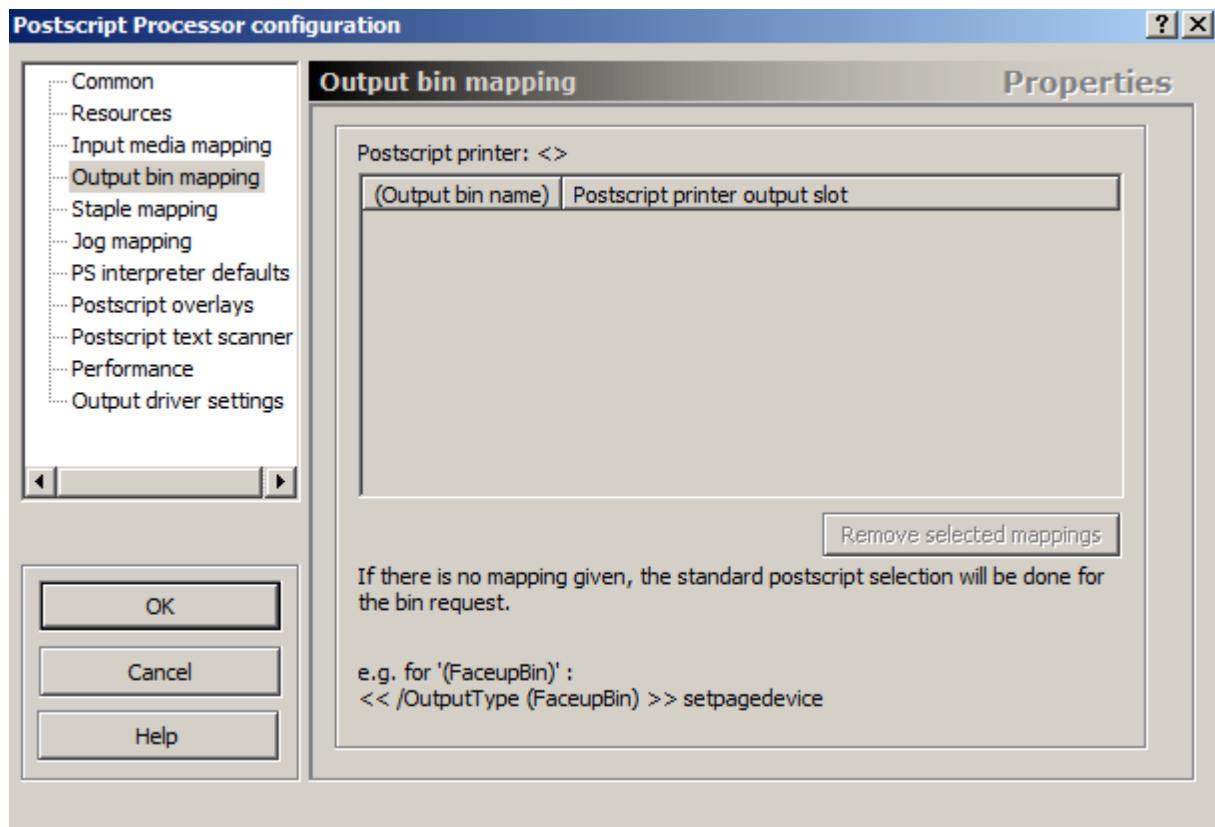




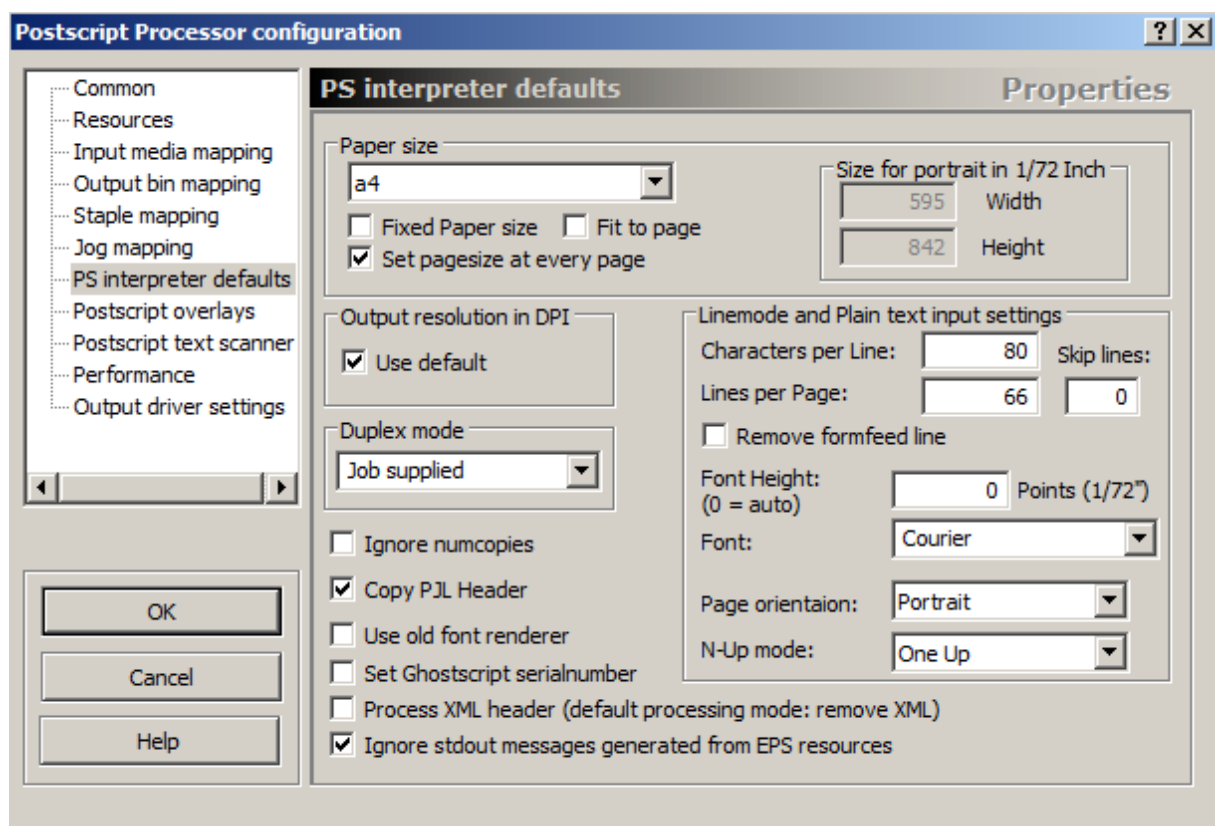
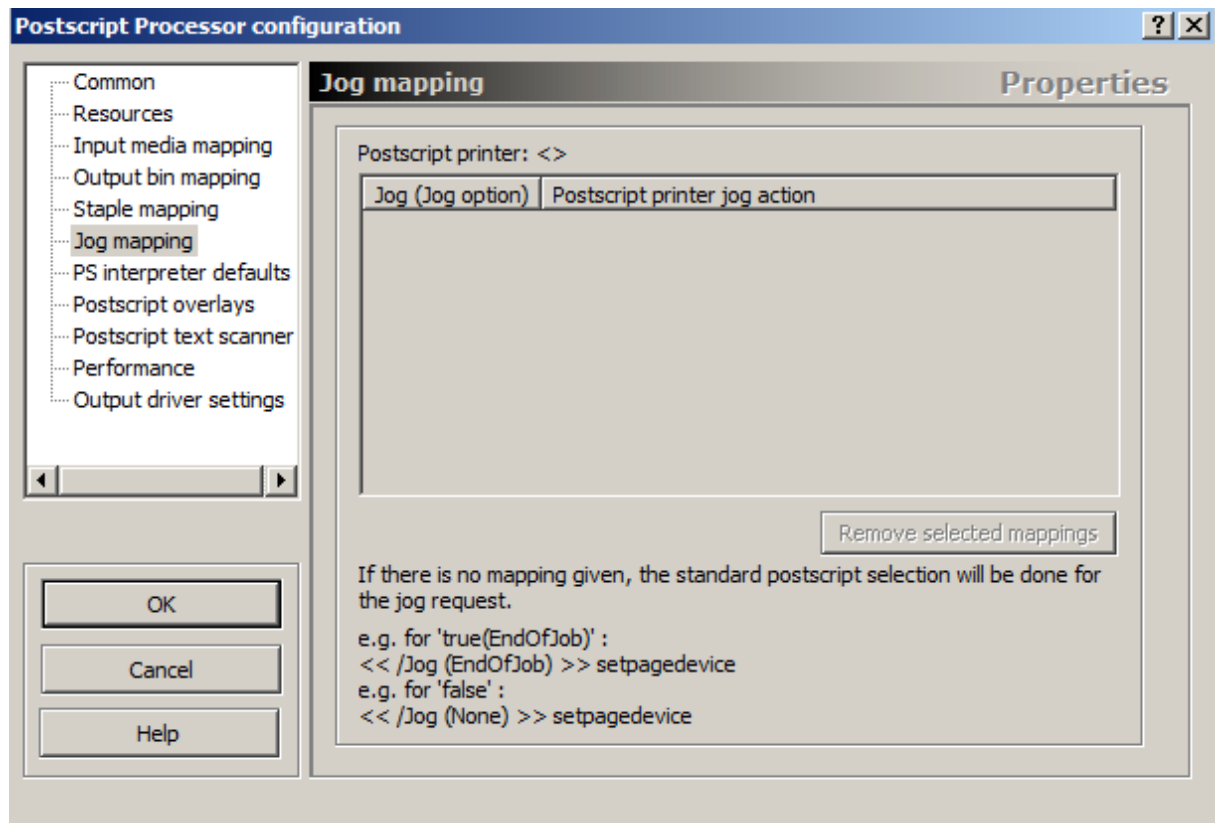
## Normal + PDF Print

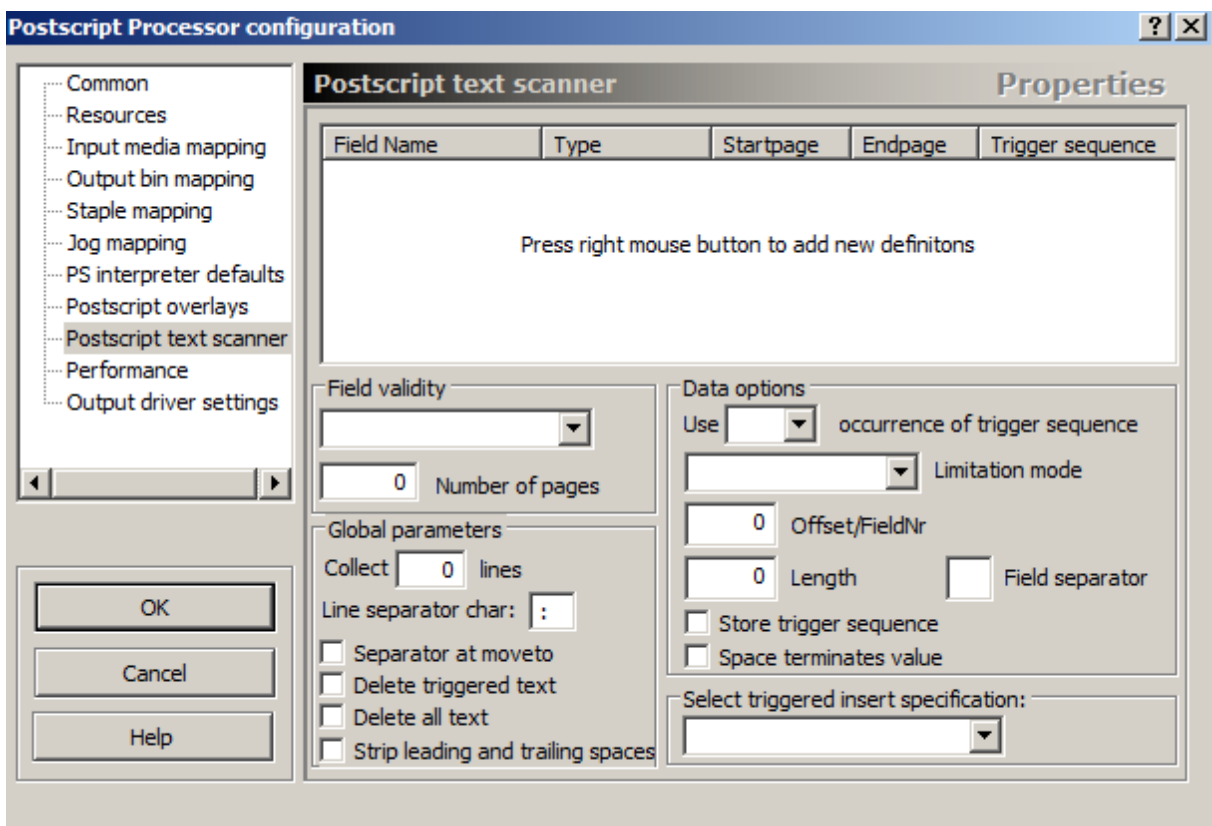
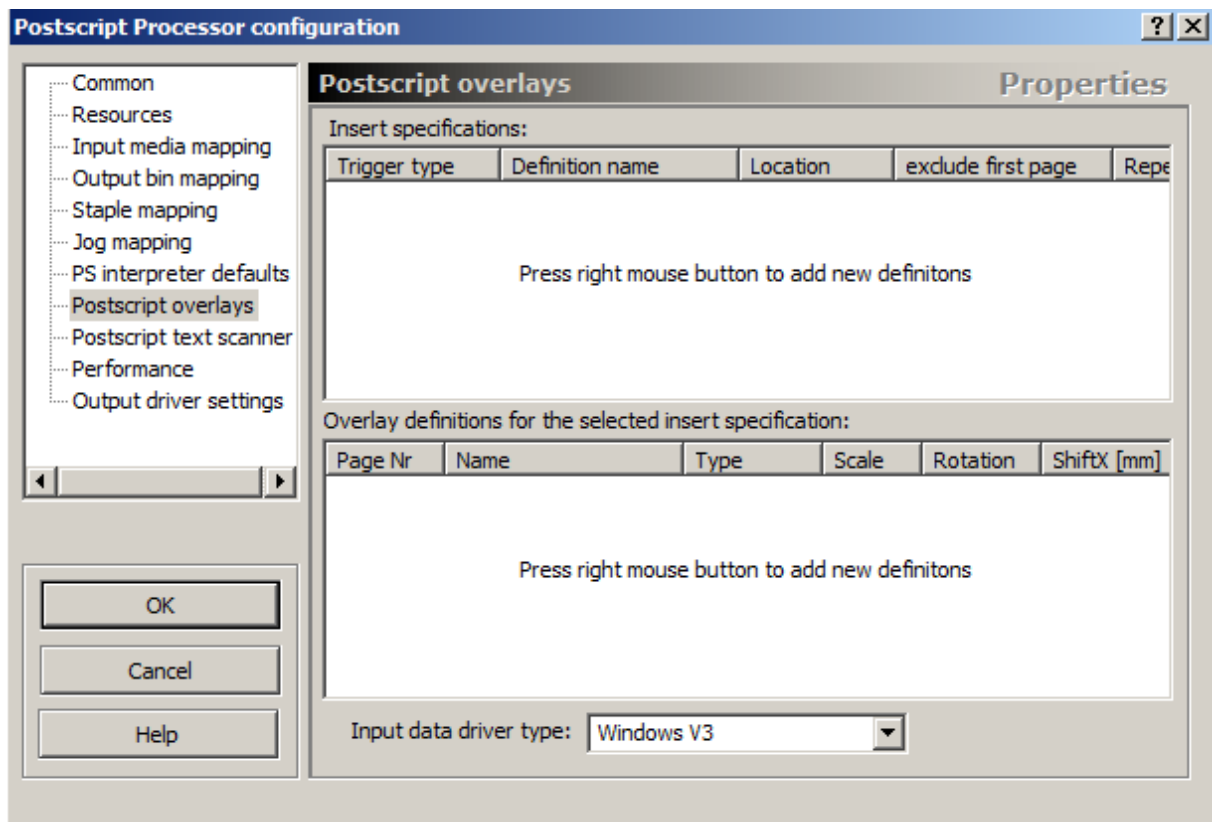


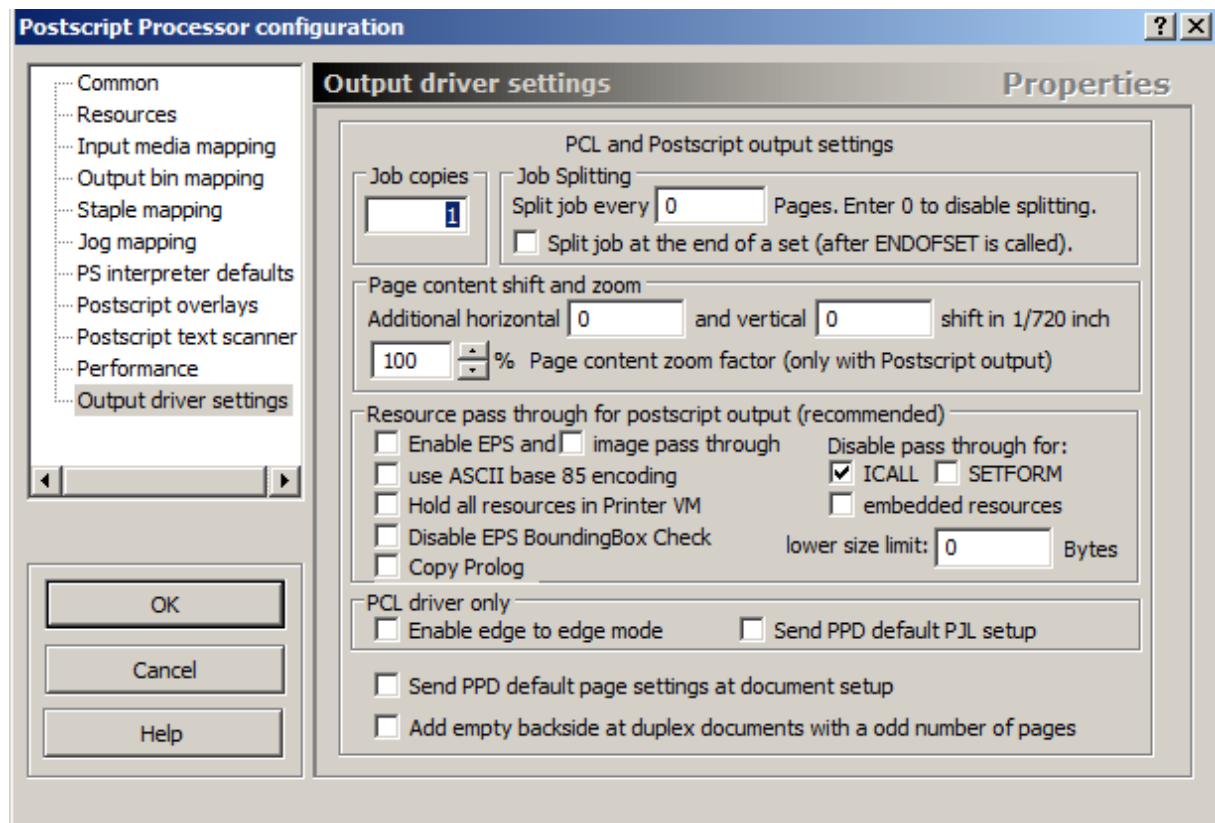
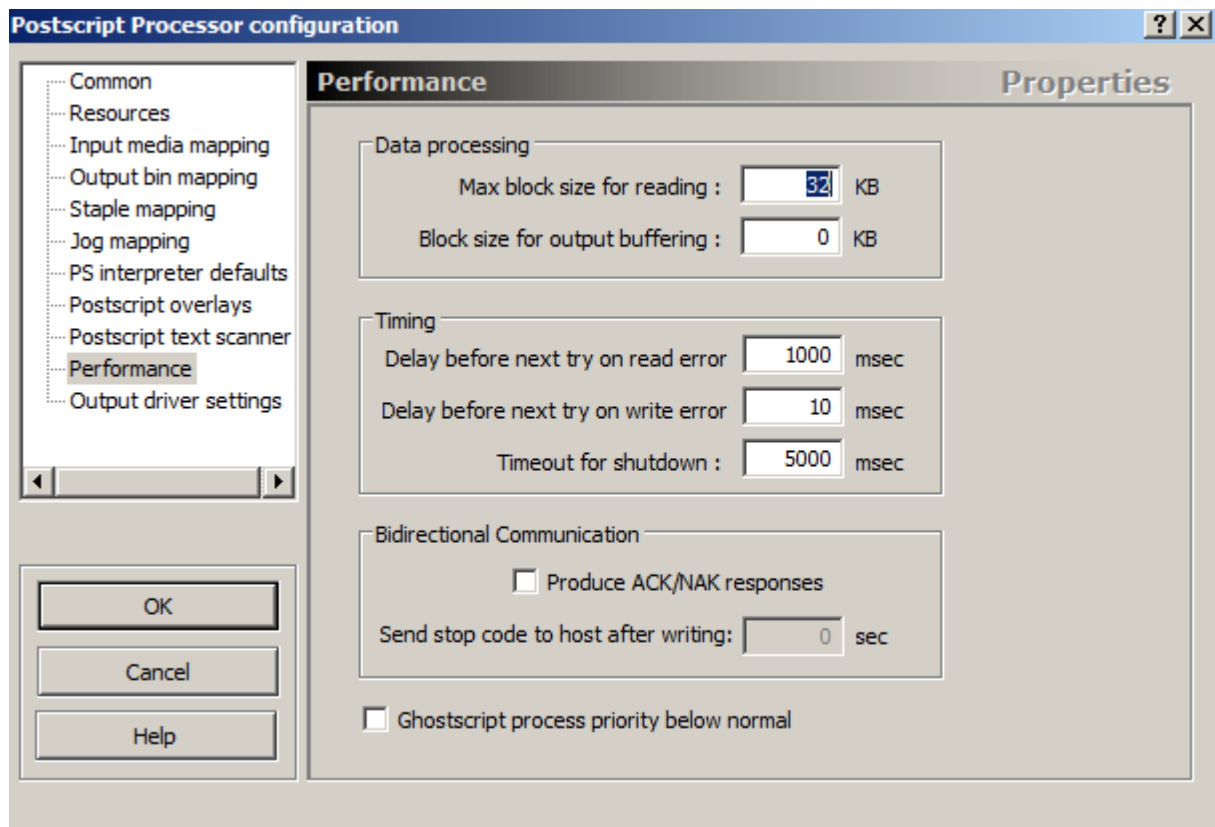


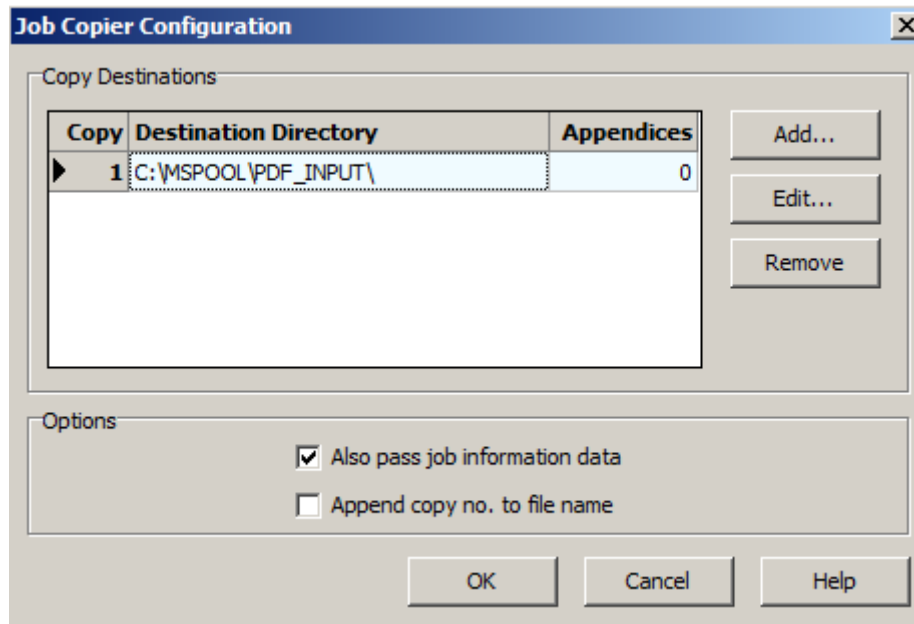
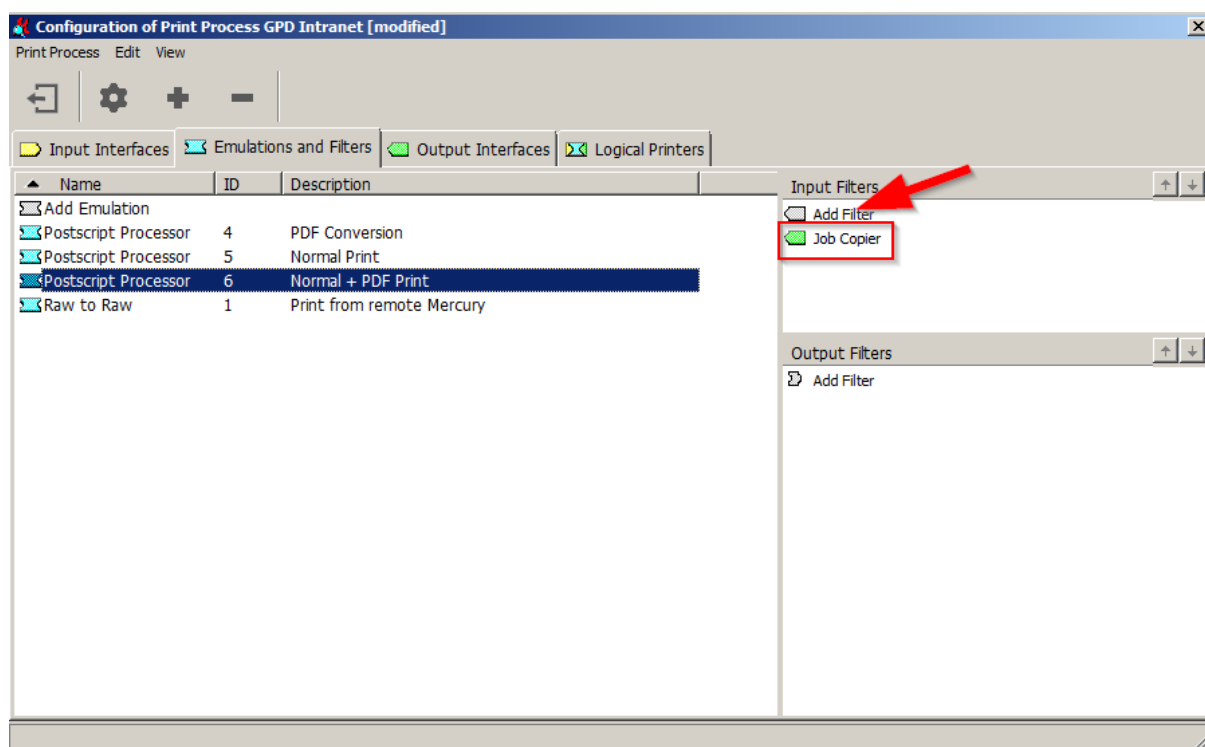




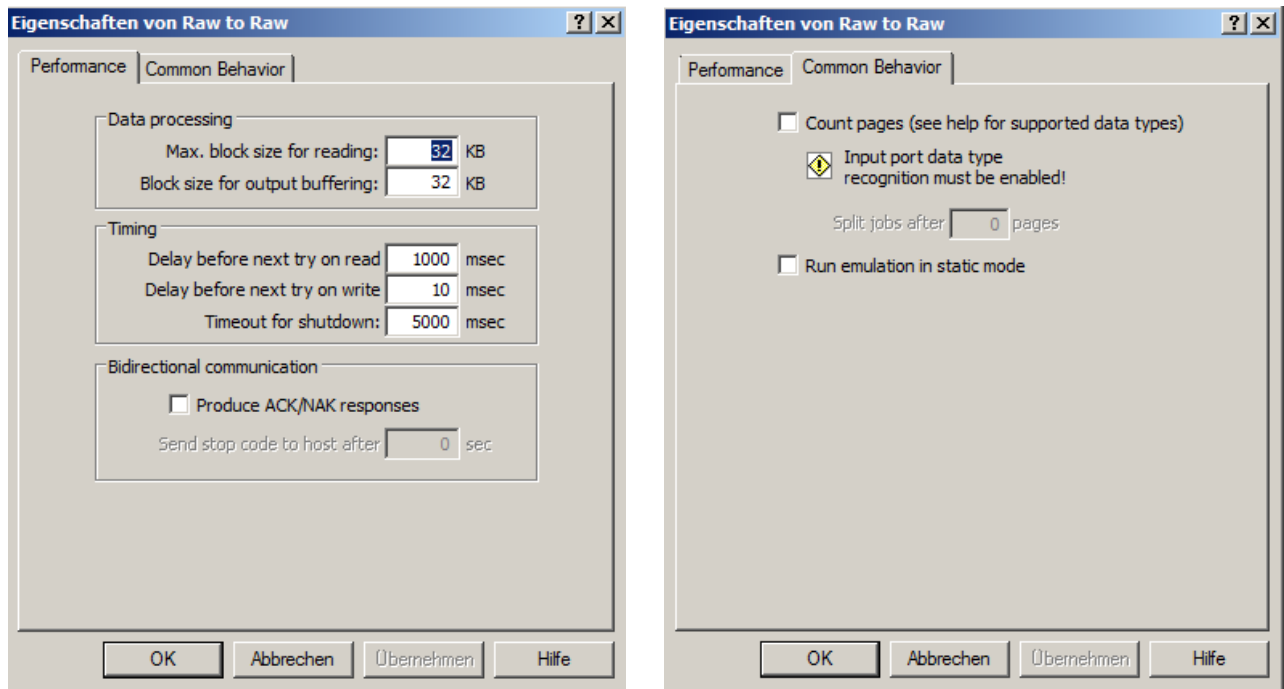








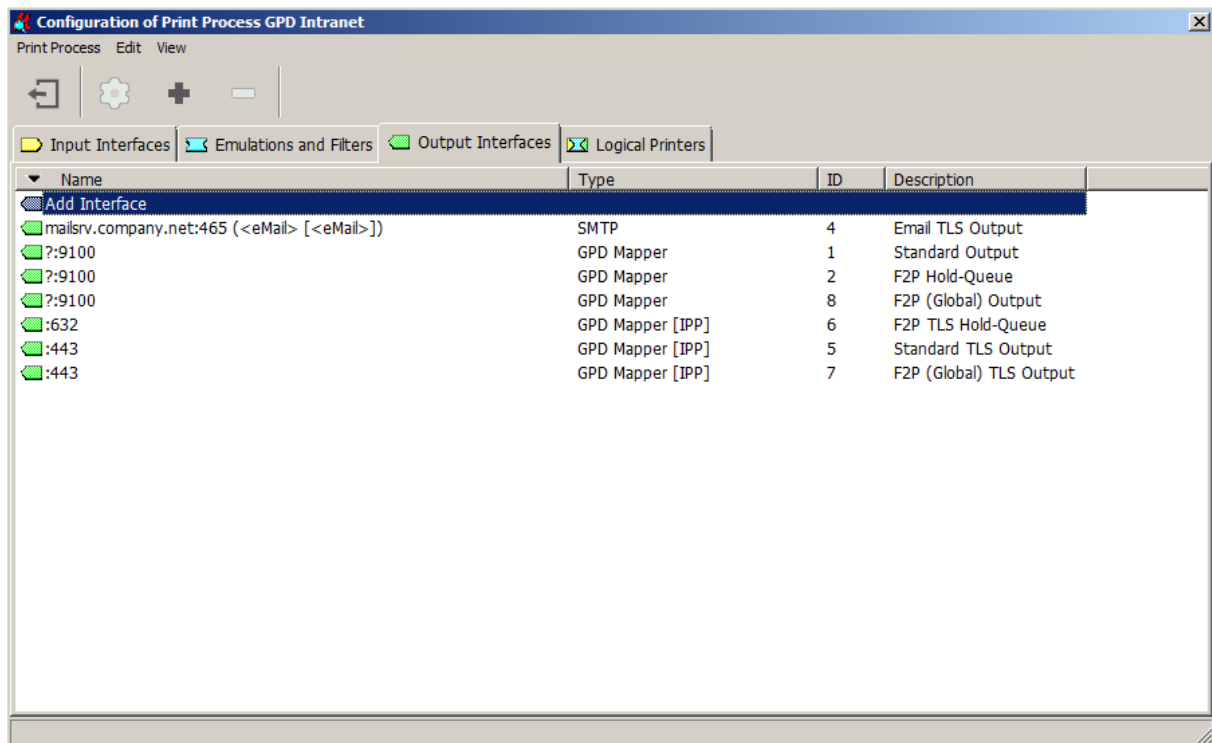
## Print from remote Mercury



## 9.5 Setting up the Mercury Output Interfaces

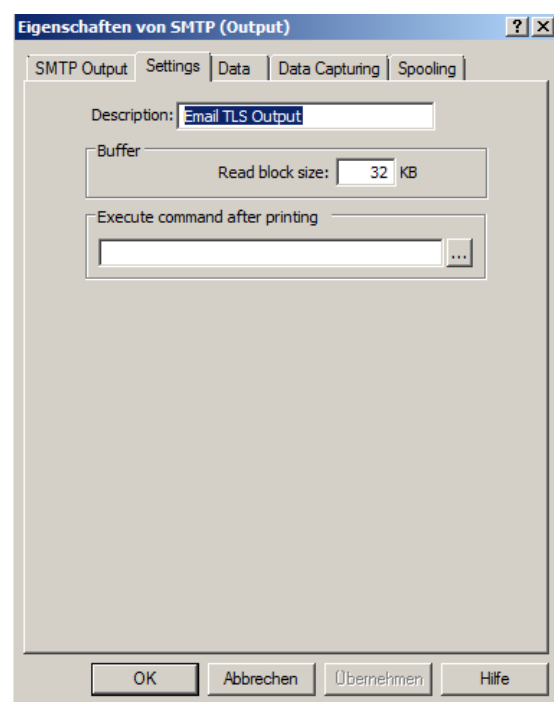
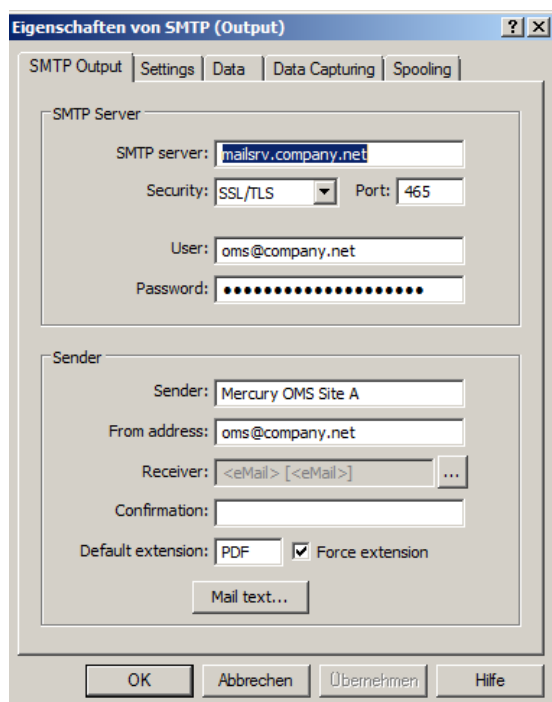
A total of seven output interfaces are required for the Mercury-wide Follow2Print and PDF workflow:

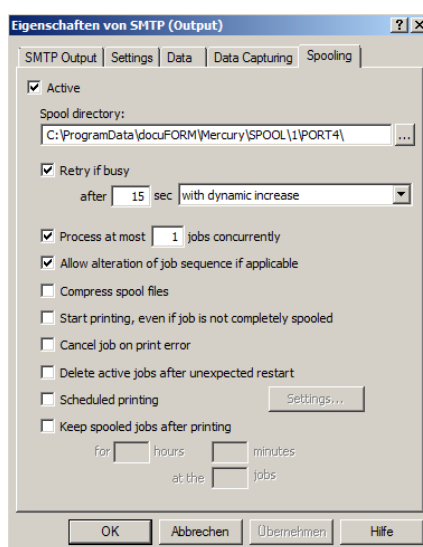
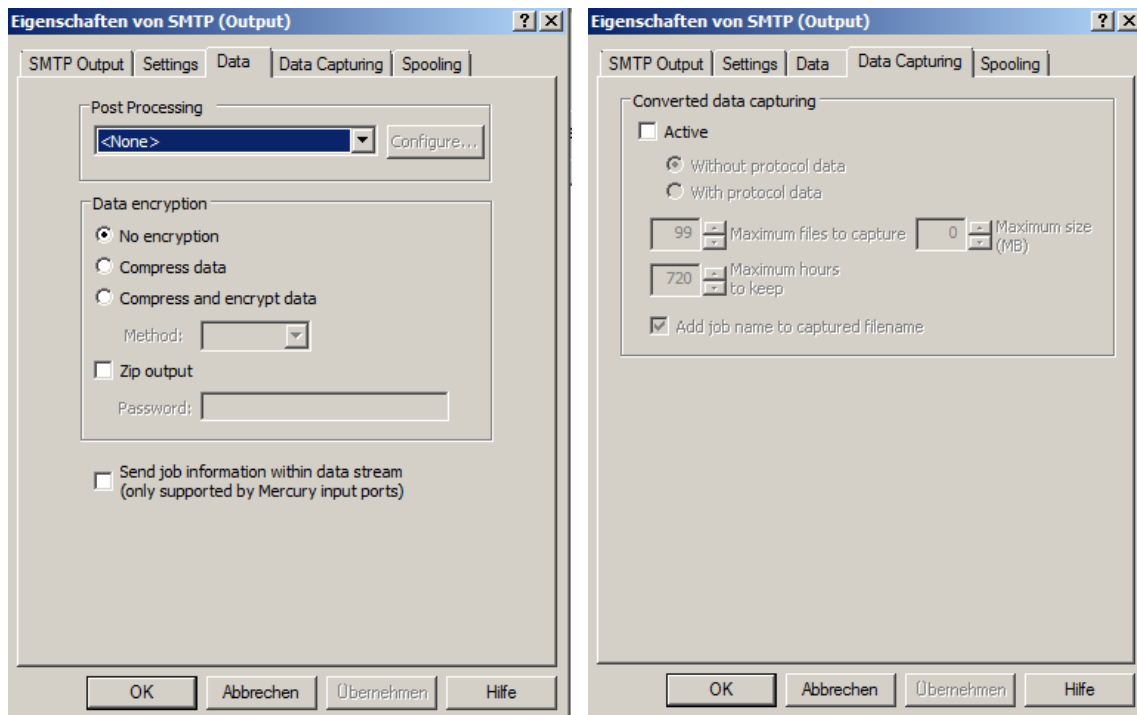
- Three GPD Mapper Output Interfaces for local and global GPD direct printing and local Follow2Print printing unencrypted.
- Three encrypted GPD Mapper Output Interfaces for local and global GPD direct printing and local Follow2Print printing
- An SMTP output interface for the encrypted mailing of generated PDF documents to the user.



## Email TLS Output

The Mercury Email TLS Output Interface is used to encrypt the PDF documents generated by the Mercury OMS Software as part of the user GPD PDF workflow.





The access data for the respective SMTP mail server to which the Mercury software

sends the generated emails with PDF attachments must be individually configured in the '**SMTP server**' area for each Mercury server. Similarly, the sender information to be entered in the '**Sender**' section can be individually configured for each Mercury OMS server. In the '**More**' section, additional 'CC' and 'BCC' recipient addresses can be entered in addition to the recipient address, which must be configured as shown in the screenshot.

The screenshot shows a 'Mail Receiver' dialog box with a title bar containing a close button. It has three main sections: 'Receiver:', 'CC:', and 'BCC:'. Each section contains a table with two columns: 'E-Mail address' and 'Name'. In the 'Receiver' section, the first row has '<eMail>' in both columns. The 'CC' and 'BCC' sections are currently empty. At the bottom of the dialog are 'OK' and 'Cancel' buttons.

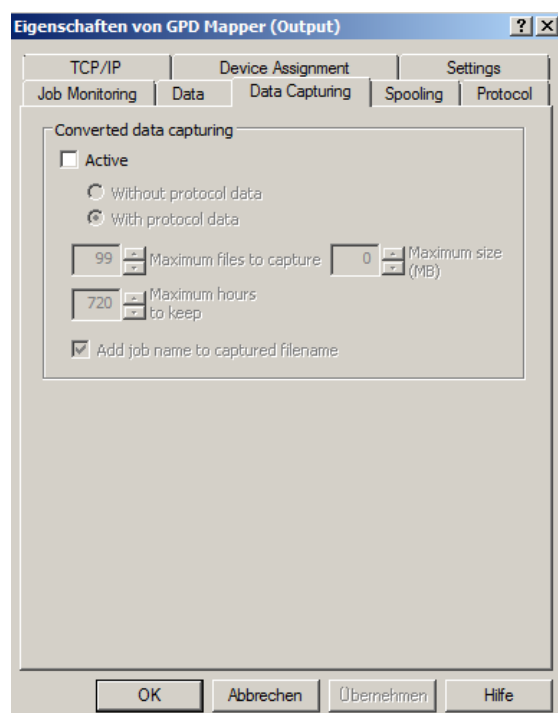
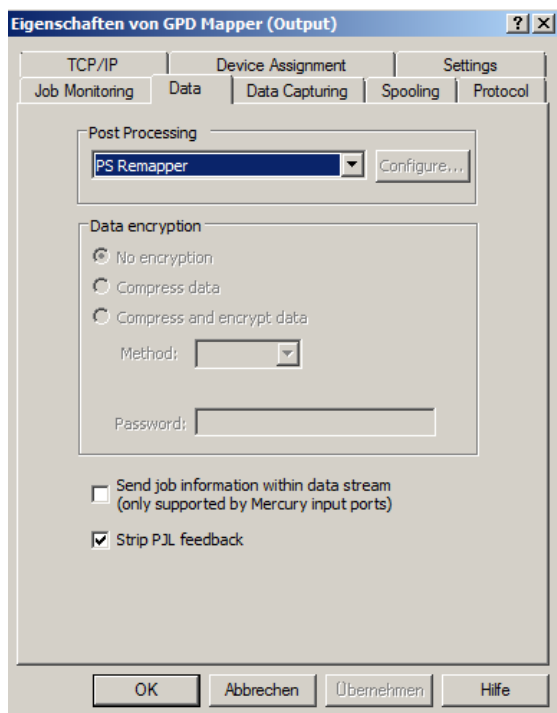
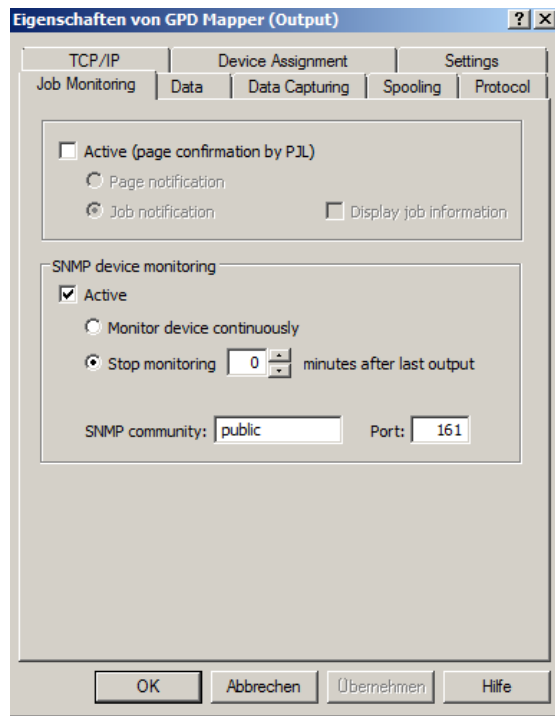
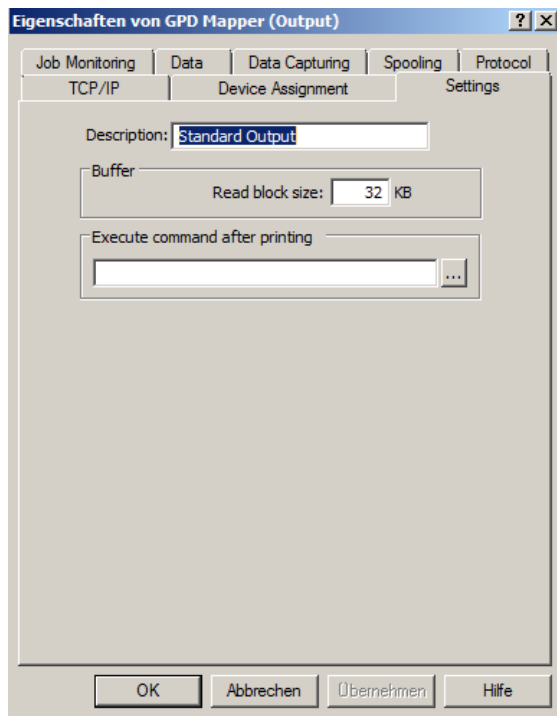
## Standard Output

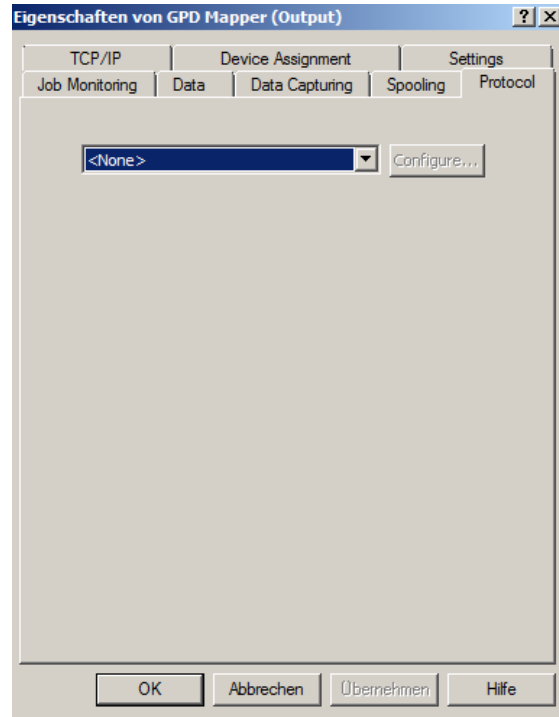
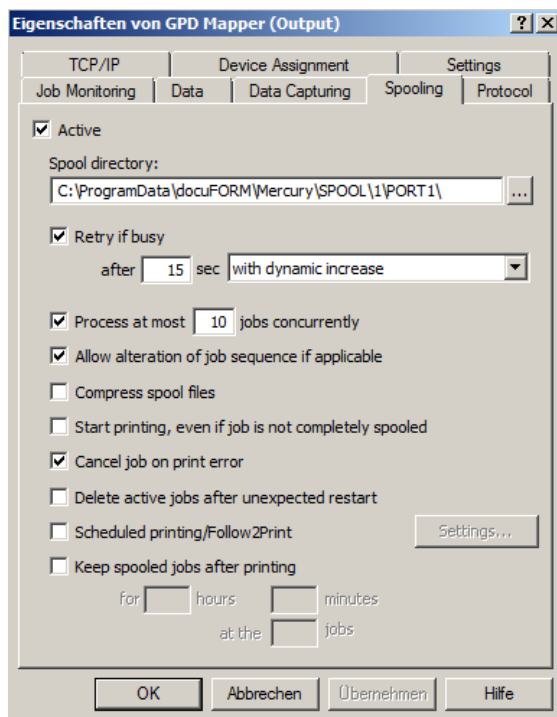
The GPD Mapper Output Interface for the 'Standard Output' sends the print documents generated by the Global Printer Driver (GPD) to the printing systems directly connected to the Mercury OMS system.

This screenshot shows the 'Eigenschaften von GPD Mapper (Output)' dialog box with the 'TCP/IP' tab selected. The 'Addresses' section has a checkbox for 'Bind to IP address' (unchecked), a 'TCP-Port' field with '9100', and a 'Default remote address' field with a browse button. Below are 'Connect timeout' (5 sec), 'Close timeout' (480 sec), and 'Linger timeout' (empty) fields. At the bottom are two checkboxes: 'Do not connect to a device which is in an error state (requires SNMP device monitoring)' (checked) and 'Do not connect to a device after connect error for [ ] seconds' (unchecked). The bottom buttons are 'OK', 'Abbrechen', 'Übernehmen', and 'Hilfe'.

This screenshot shows the same dialog box with the 'Device Assignment' tab selected. It features a list box for 'Device' with buttons 'Add...', 'Edit...', 'Delete', 'Move Up', and 'Move Down' to its right. Below is a 'Method' dropdown set to 'Use only if error occurred', with 'Pages' and 'Count' fields. The 'Error handling' section includes a 'Redirect after' field (0 seconds), a 'Redirect' checkbox (unchecked), and radio buttons for 'Complete job' (selected) and 'Missing pages'. There is also a field for 'after [ ] minutes without print activity'. The bottom buttons are 'OK', 'Abbrechen', 'Übernehmen', and 'Hilfe'.

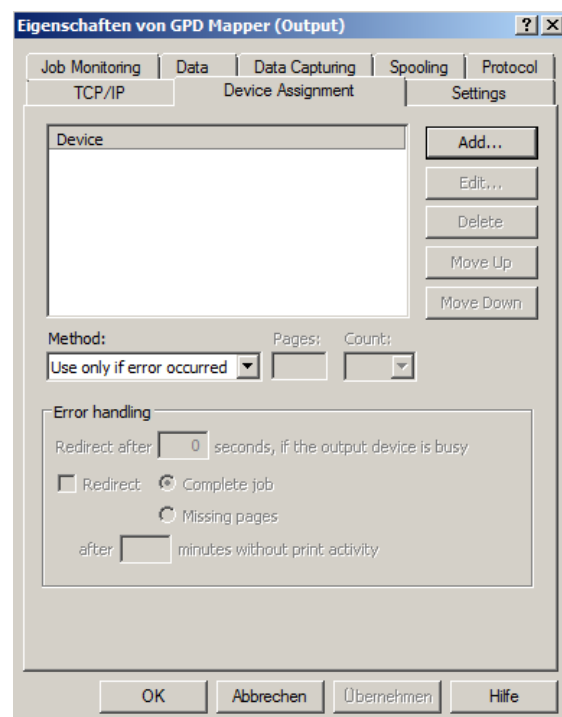
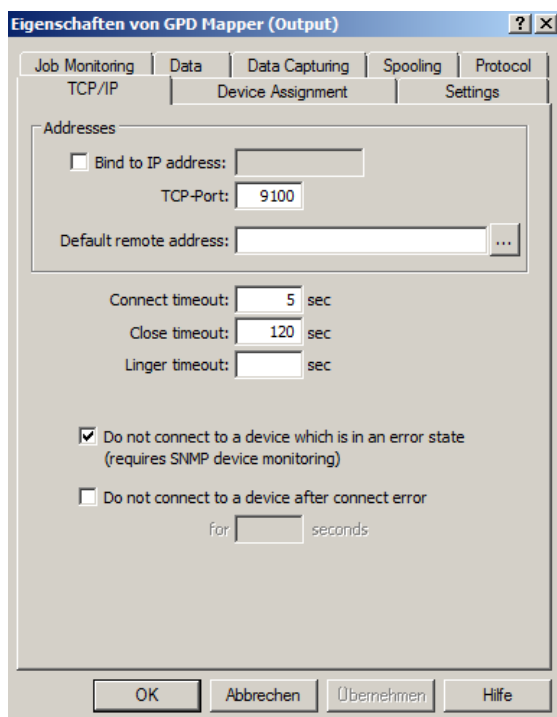


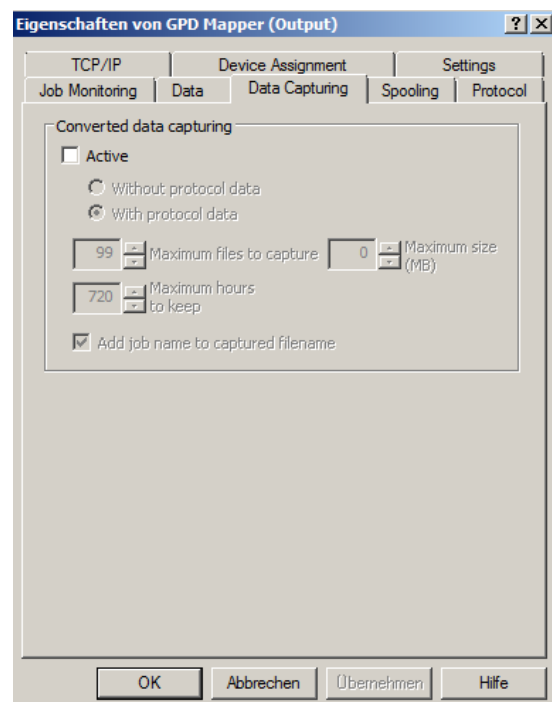
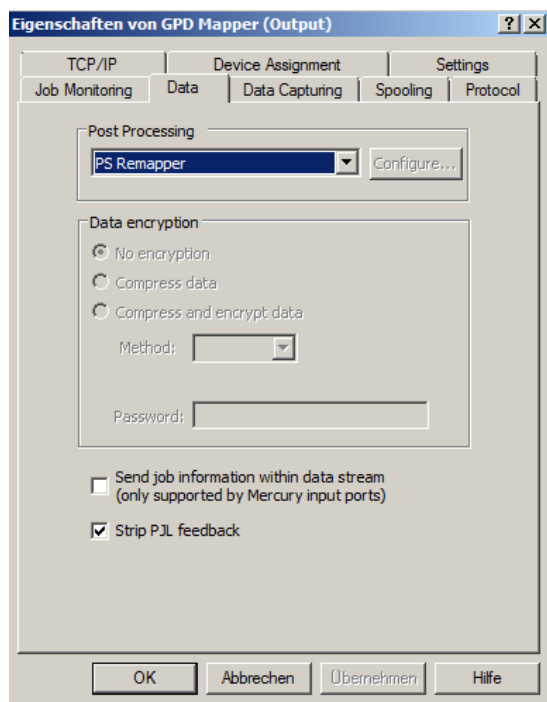
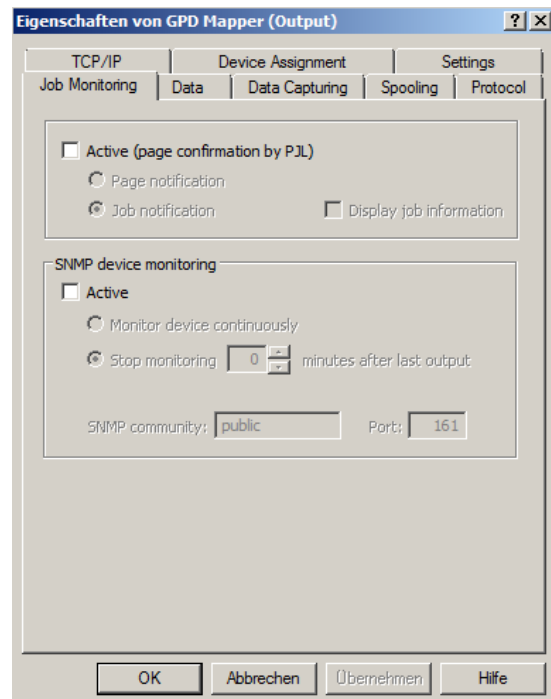
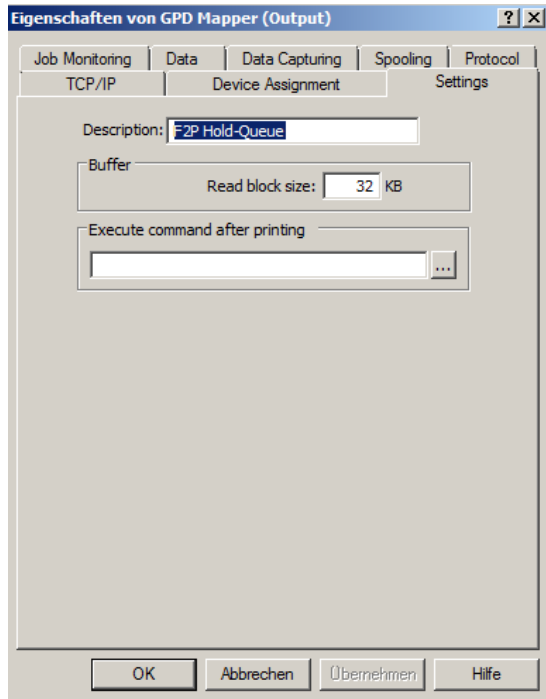


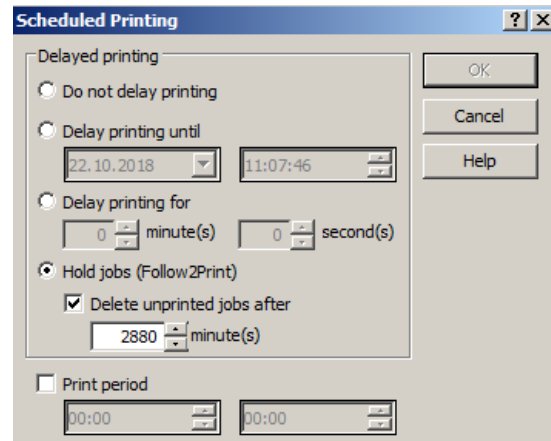
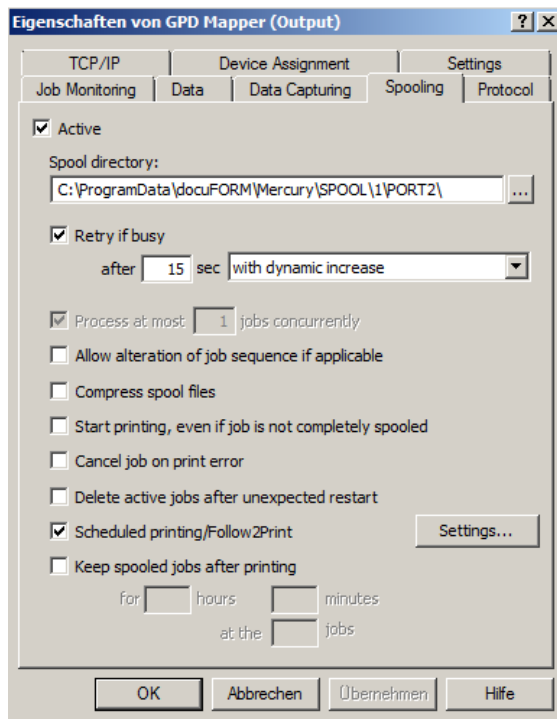


## F2P Hold Queue

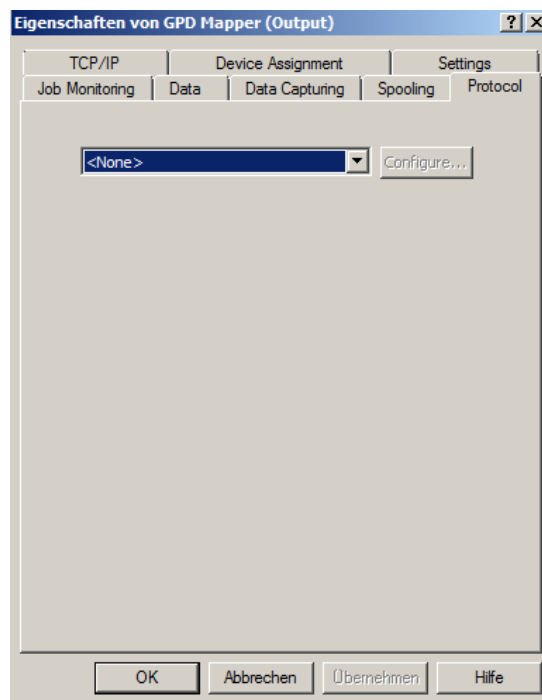
The F2P Hold Queue GPD Mapper Output Interface collects the GPD-generated print data for the Follow2Print output on local or remote printing systems.







If automatic deletion of non-fetched Follow2Print jobs by the Mercury OMS software is desired, then the deletion time for these jobs can be set by enabling the option '**Delete unprinted jobs after**' and entering a retention time in minutes in the '**Scheduled printing**' option.



## F2P (Global) Output

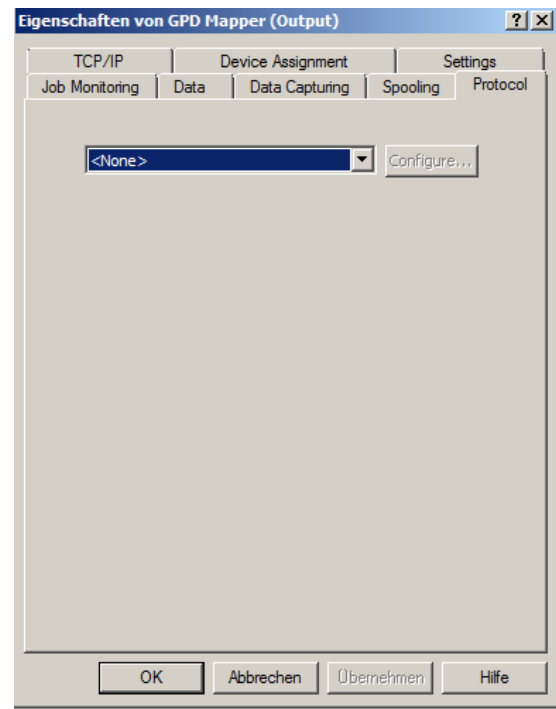
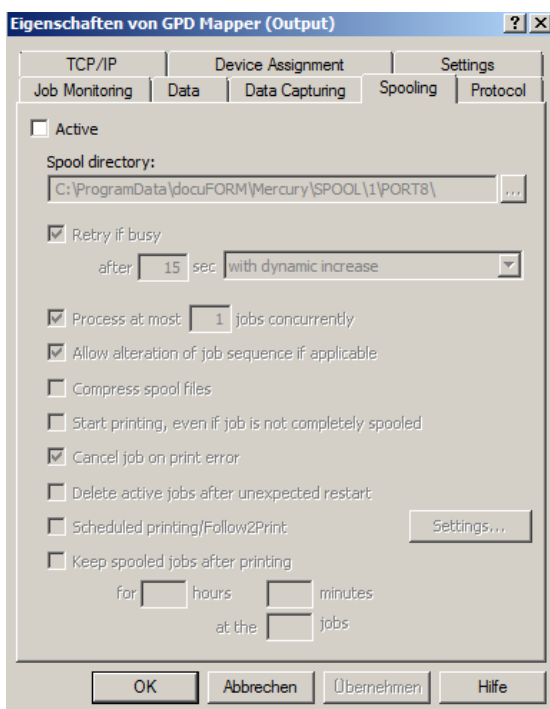
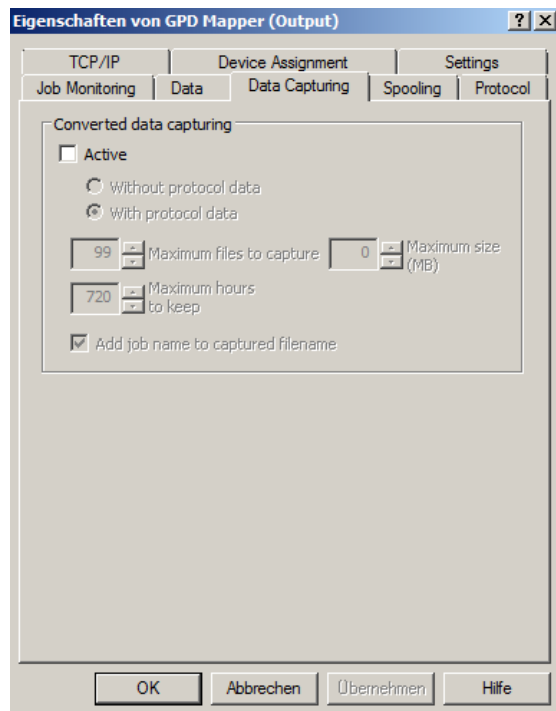
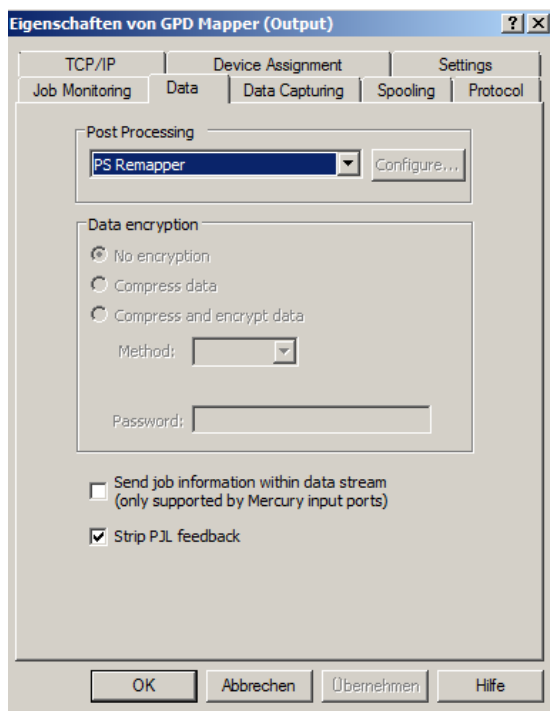
The F2P (Global) Output Interface forwards GPD-generated print data from another Mercury for Follow2Print output from one Mercury to another on local or remote printing systems.

The screenshot shows the 'Eigenschaften von GPD Mapper (Output)' dialog box with the 'TCP/IP' tab selected. The 'Addresses' section includes a checkbox for 'Bind to IP address:', a 'TCP-Port:' field set to '9100', and a 'Default remote address:' field with a browse button. Below this are 'Connect timeout:' (5 sec), 'Close timeout:' (120 sec), and 'Linger timeout:' fields. Two checkboxes are present: 'Do not connect to a device which is in an error state (requires SNMP device monitoring)' (checked) and 'Do not connect to a device after connect error for' (seconds). The bottom has 'OK', 'Abbrechen', 'Übernehmen', and 'Hilfe' buttons.

The screenshot shows the 'Eigenschaften von GPD Mapper (Output)' dialog box with the 'Device Assignment' tab selected. It features a 'Device' list box with buttons 'Add...', 'Edit...', 'Delete', 'Move Up', and 'Move Down' to its right. Below the list is a 'Method:' dropdown set to 'Use only if error occurred', with 'Pages:' and 'Count:' fields. The 'Error handling' section includes a 'Redirect after' field (0 seconds), a 'Redirect' checkbox, and radio buttons for 'Complete job' (selected) and 'Missing pages'. An 'after' field (minutes without print activity) is also present. The bottom has 'OK', 'Abbrechen', 'Übernehmen', and 'Hilfe' buttons.

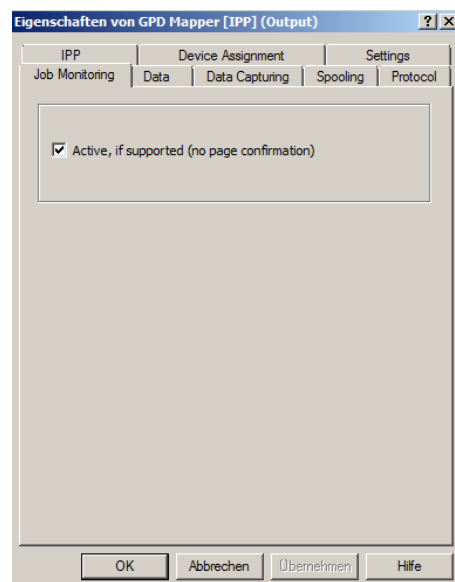
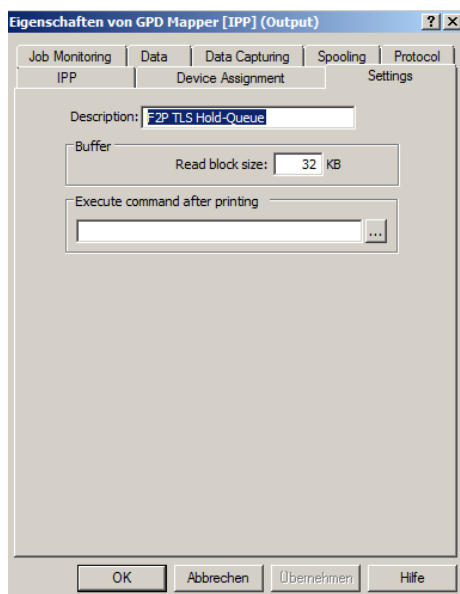
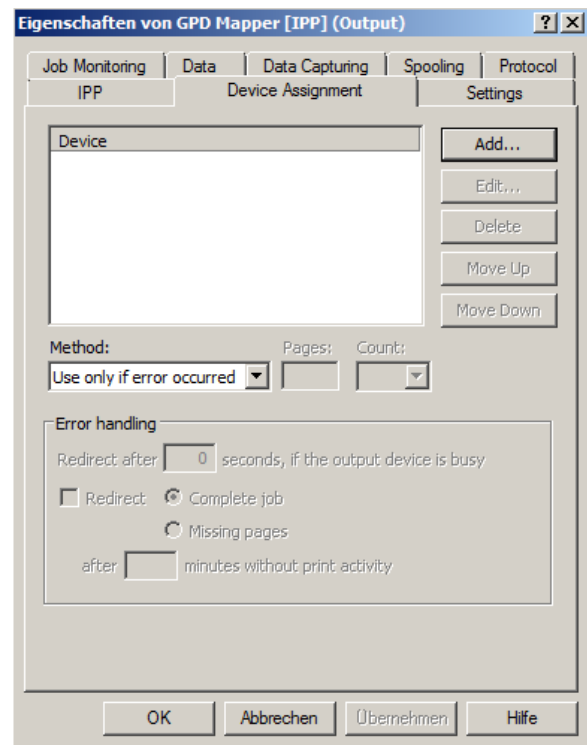
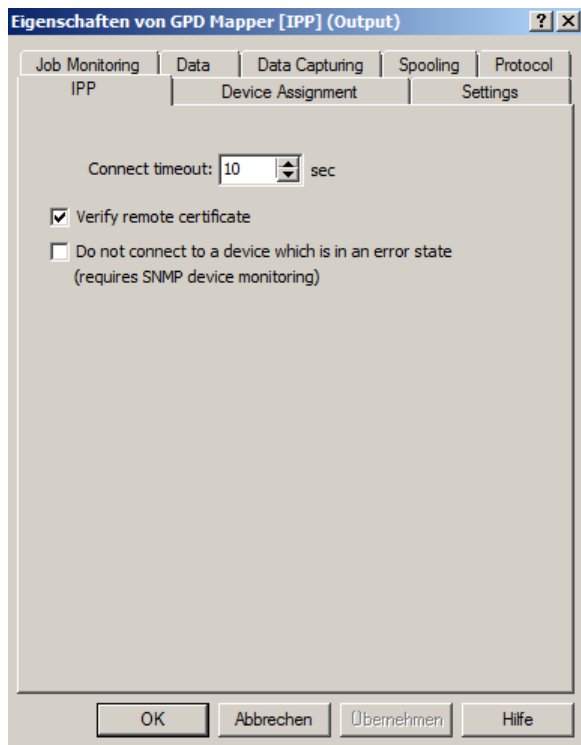
The screenshot shows the 'Eigenschaften von GPD Mapper (Output)' dialog box with the 'Settings' tab selected. The 'Description:' field contains 'F2P (Global) Output'. Below it is a 'Buffer' section with a 'Read block size:' field set to '32 KB'. The 'Execute command after printing' section has a text field with a browse button. The bottom has 'OK', 'Abbrechen', 'Übernehmen', and 'Hilfe' buttons.

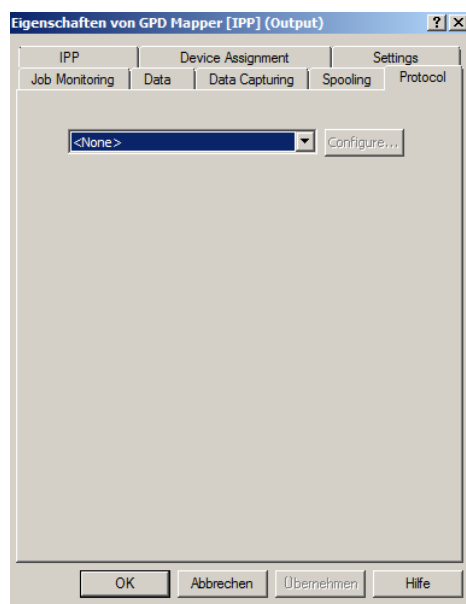
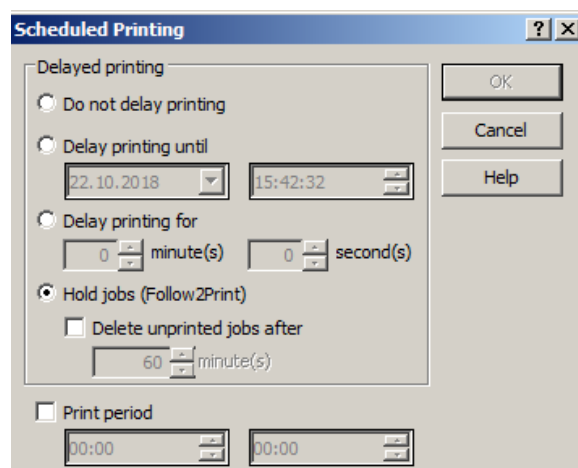
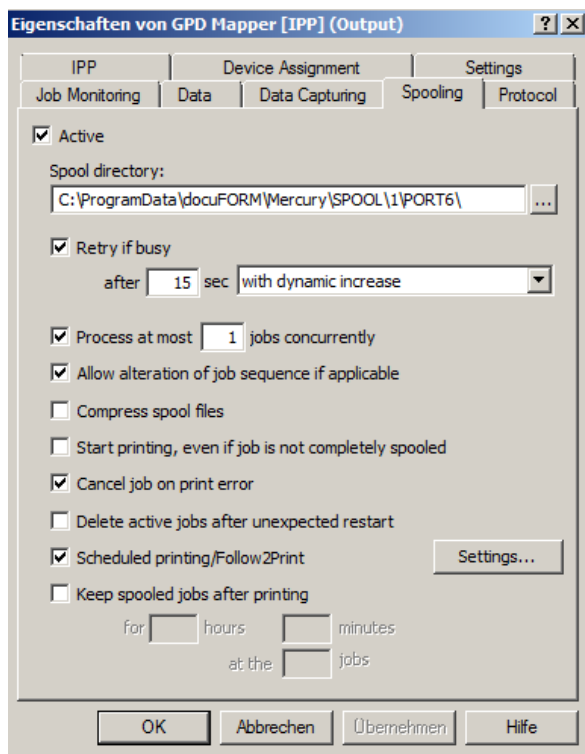
The screenshot shows the 'Eigenschaften von GPD Mapper (Output)' dialog box with the 'Job Monitoring' tab selected. It includes a checkbox for 'Active (page confirmation by P.J.L.)' with radio buttons for 'Page notification' and 'Job notification' (selected). There is also a 'Display job information' checkbox. The 'SNMP device monitoring' section has an 'Active' checkbox, radio buttons for 'Monitor device continuously' and 'Stop monitoring' (selected), and a field for 'minutes after last output' (0). The 'SNMP community:' field is set to 'public' and the 'Port:' field is set to '161'. The bottom has 'OK', 'Abbrechen', 'Übernehmen', and 'Hilfe' buttons.



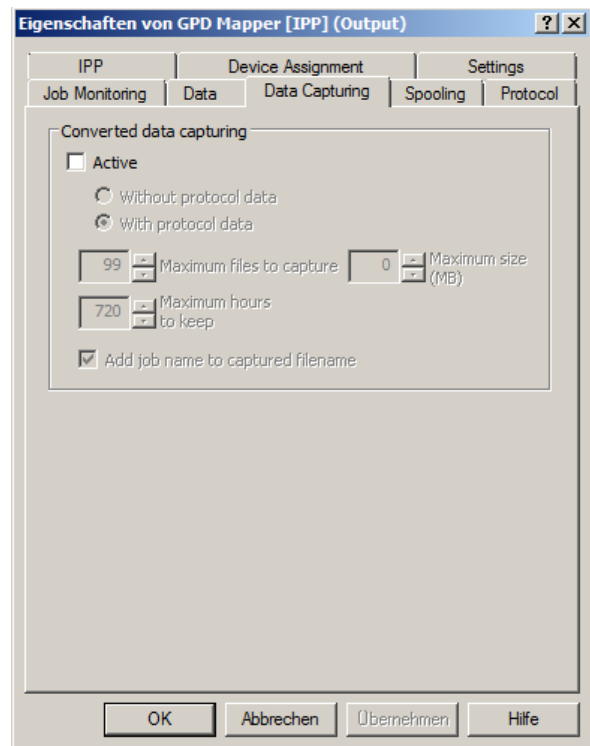
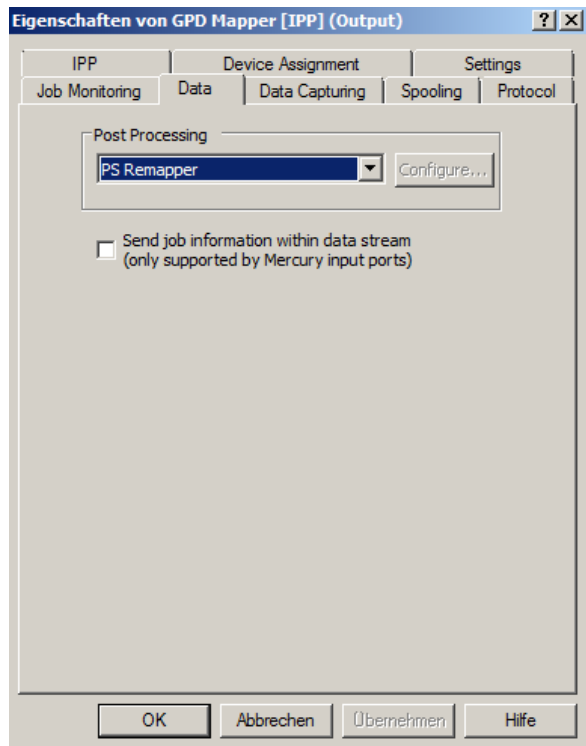
## F2P TLS Hold Queue

The F2P Hold Queue GPD Mapper Output Interface encrypts the GPD-generated print data for the Follow2Print output on local or remote printing systems.



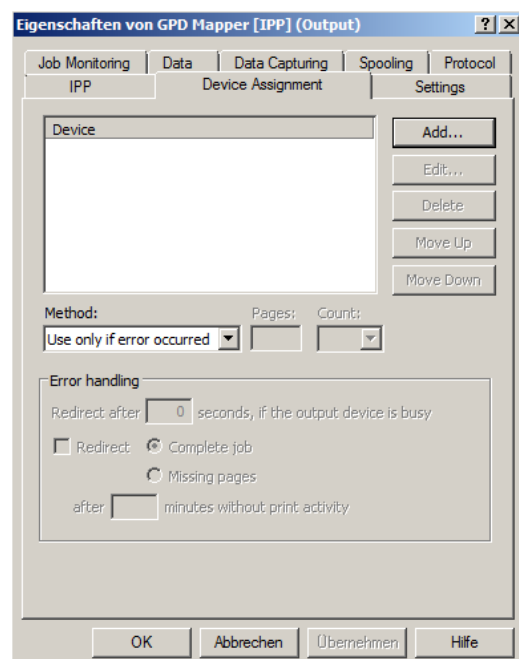
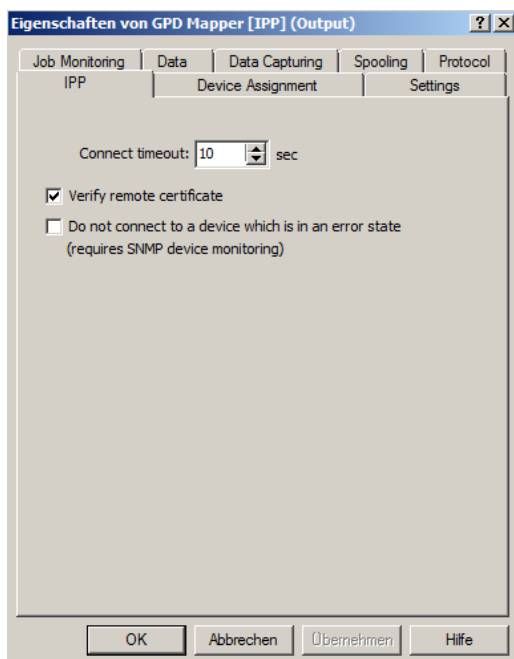


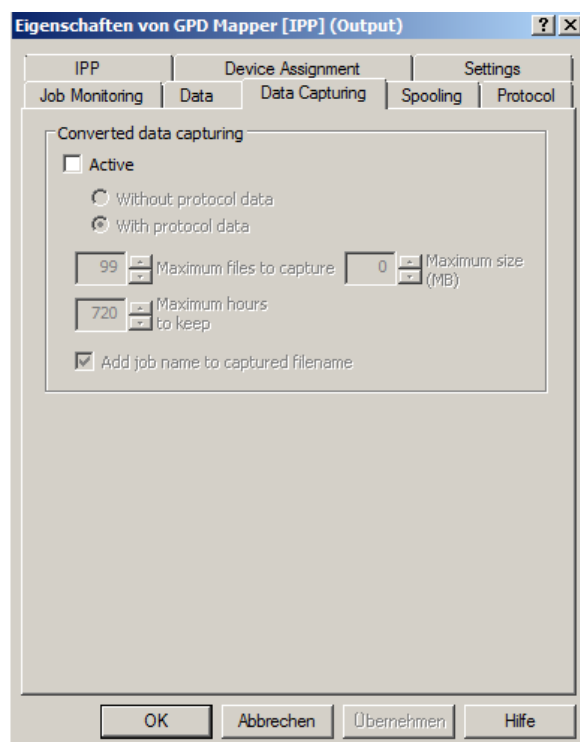
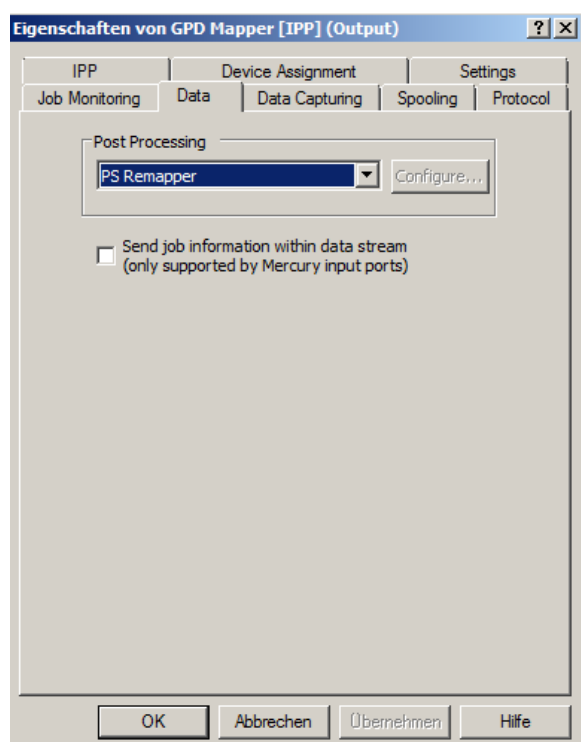
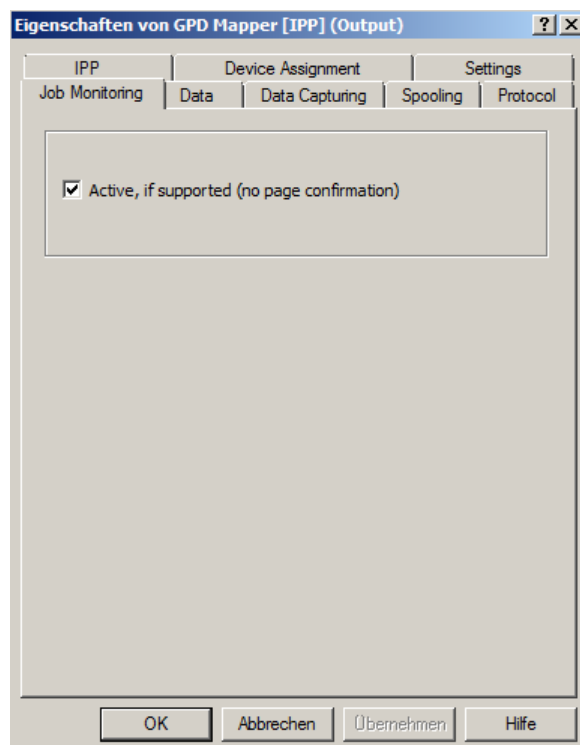
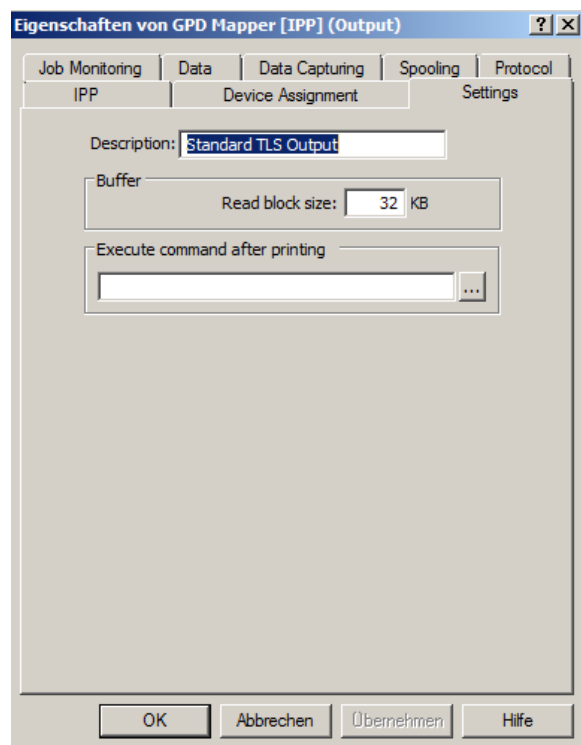


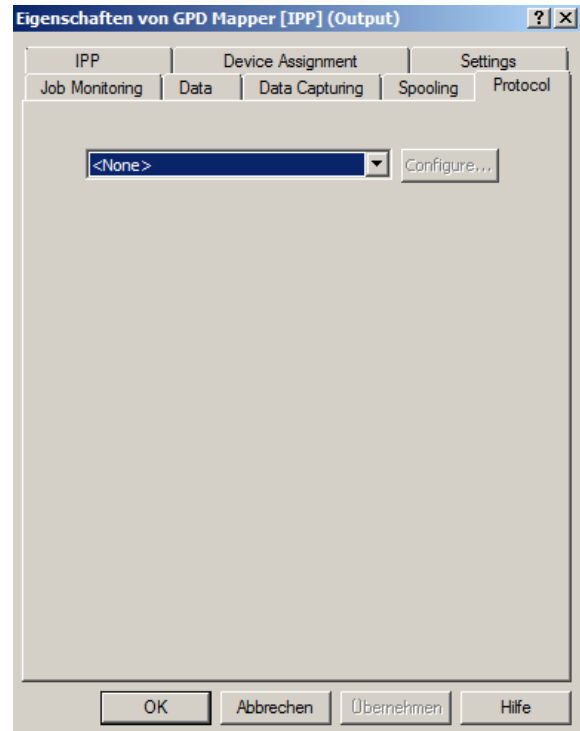
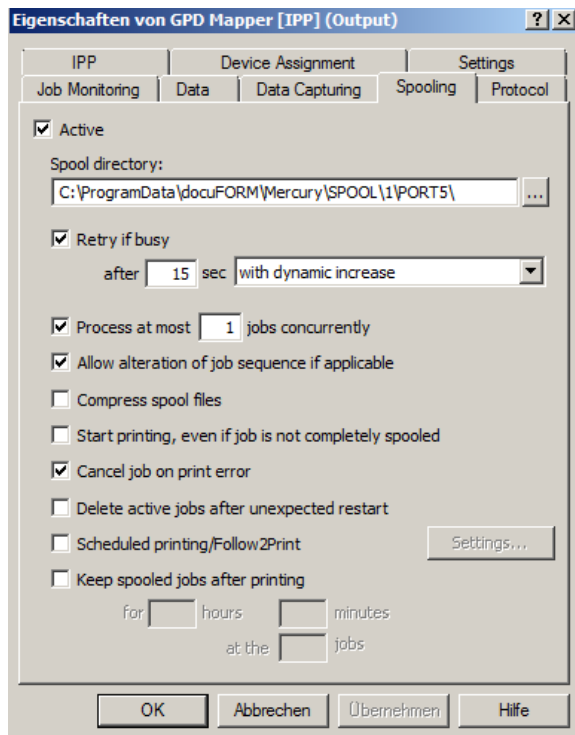


## Standard TLS Output

The GPD Mapper Output Interface for the 'Standard Output' sends the encrypted print documents generated by the Global Printer Driver (GPD) directly to the print system locally connected to the Mercury OMS system.

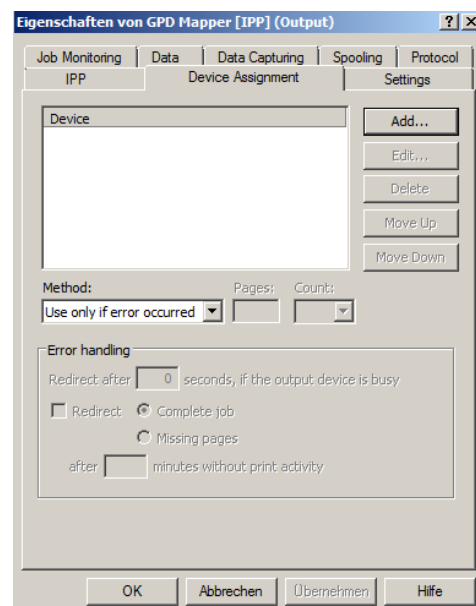
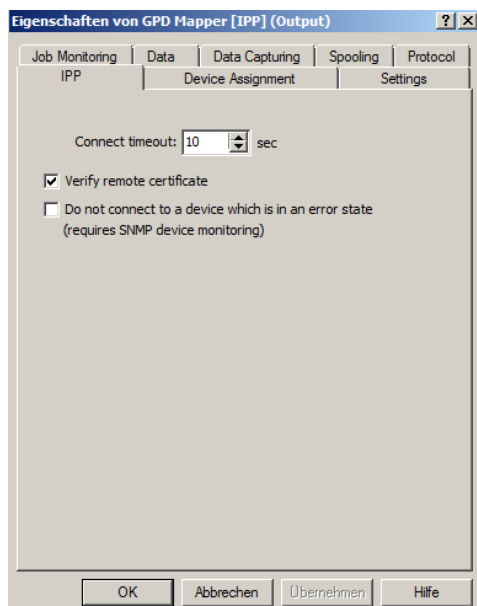


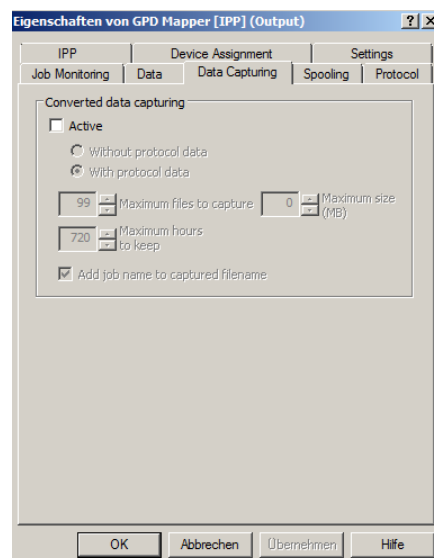
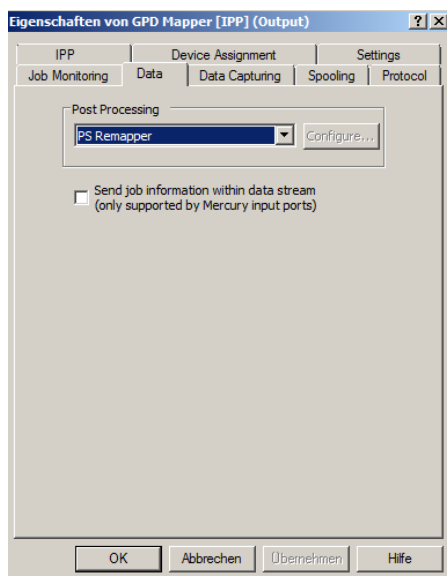
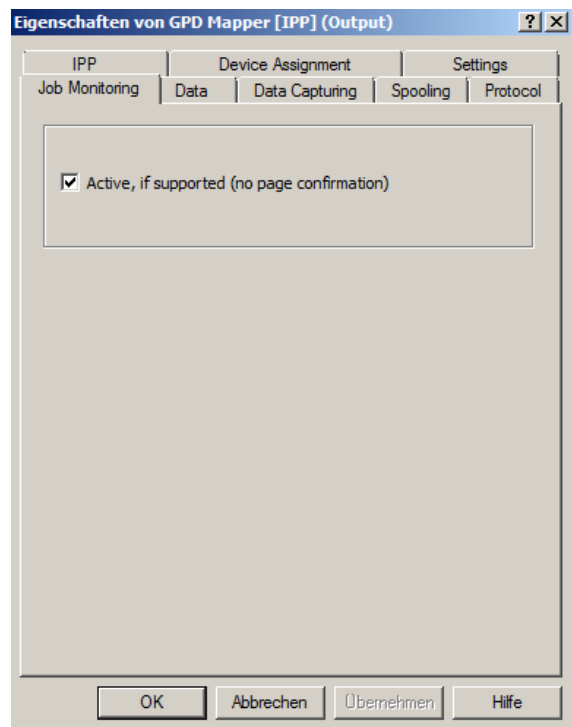
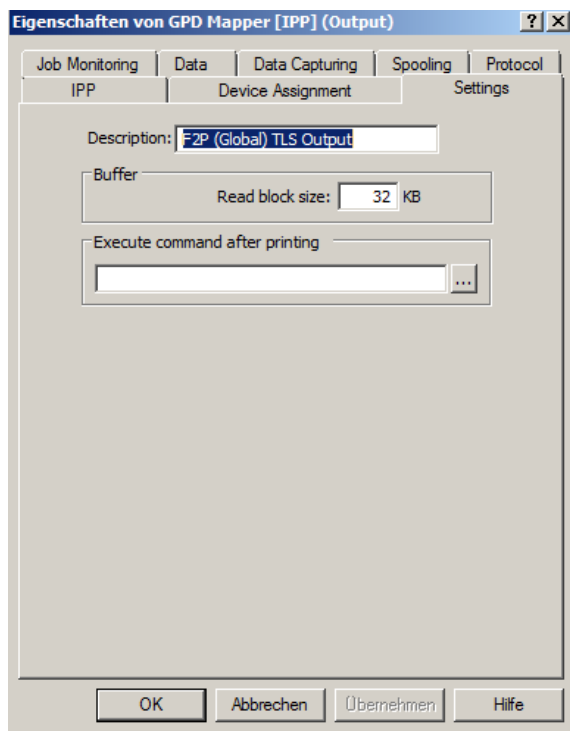


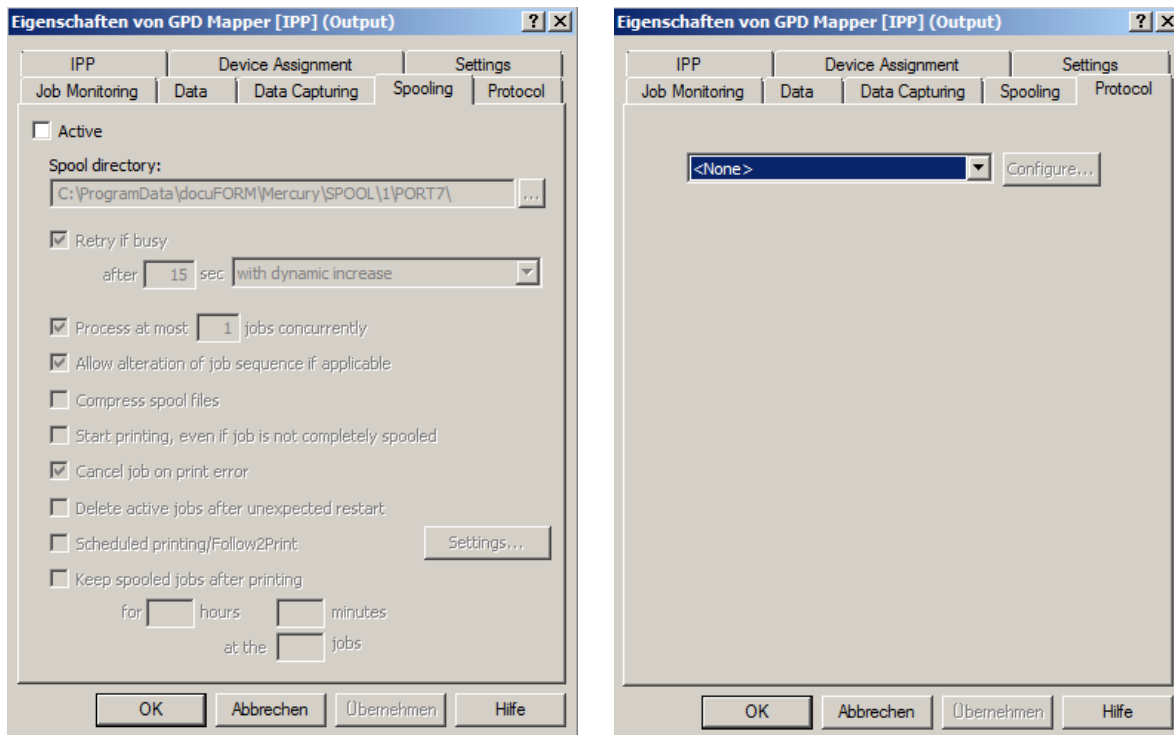


## F2P (Global) TLS Output

The F2P (Global) Output Interface routes the print data generated by the GPD encrypted by another Mercury for Follow2Print output from one Mercury to another on local or remote printing systems.







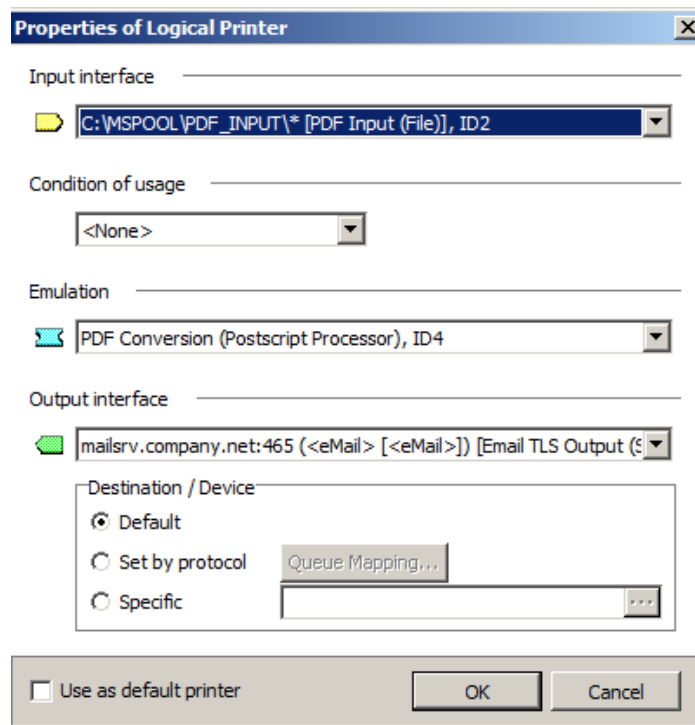
## 9.6 Setting up the Mercury Logical Printer

From the previously set up Mercury OMS Input Interfaces, emulations, filters and Output Interfaces, the required 13 logical printers can now be defined.

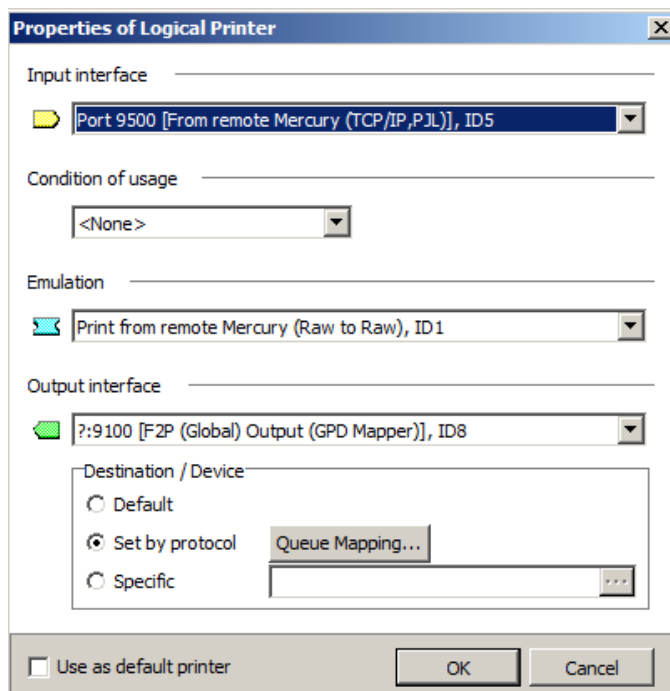
Input Interface	Condition	Emulation	Output Interface
2 - C:\MSPOOL\PDF_INPUT1* (PDF Input (File))	none	4 - PDF Conversion (Postscript Processor)	4 - Email TLS Output (SMTP) - mailsrv.company.net:465 (<eMail> [...]
5 - Port 9500 (From remote Mercury (TCP/IP, P/L))	none	1 - Print from remote Mercury (Raw to Raw)	8 - F2P (Global) Output (GPD Mapper) - Destination delivered by pr...
1 - Port 9100 (GPD Input (GPD))	GPD: PDF by email	4 - PDF Conversion (Postscript Processor)	4 - Email TLS Output (SMTP) - mailsrv.company.net:465 (<eMail> [...]
1 - Port 9100 (GPD Input (GPD))	GPD: Follow2Print + PDF by email	6 - Normal + PDF Print (Postscript Processor)	2 - F2P Hold-Queue (GPD Mapper) - ?9100
1 - Port 9100 (GPD Input (GPD))	GPD: Follow2Print	5 - Normal Print (Postscript Processor)	2 - F2P Hold-Queue (GPD Mapper) - ?9100
1 - Port 9100 (GPD Input (GPD))	GPD: Normal print + PDF by email	6 - Normal + PDF Print (Postscript Processor)	1 - Standard Output (GPD Mapper) - Destination delivered by proto...
1 - Port 9100 (GPD Input (GPD))	GPD: Normal print	5 - Normal Print (Postscript Processor)	1 - Standard Output (GPD Mapper) - Destination delivered b...
4 - Port 632 (TLS from remote Mercury (PP [Server]))	none	1 - Print from remote Mercury (Raw to Raw)	7 - F2P (Global) TLS Output (GPD Mapper [IPP]) - Destination delv...
3 - Port 631 (GPD TLS Input (GPD [IPP]))	GPD: PDF by email	4 - PDF Conversion (Postscript Processor)	4 - Email TLS Output (SMTP) - mailsrv.company.net:465 (<eMail> [...]
3 - Port 631 (GPD TLS Input (GPD [IPP]))	GPD: Follow2Print + PDF by email	6 - Normal + PDF Print (Postscript Processor)	6 - F2P TLS Hold-Queue (GPD Mapper [IPP]) - :632
3 - Port 631 (GPD TLS Input (GPD [IPP]))	GPD: Follow2Print	5 - Normal Print (Postscript Processor)	6 - F2P TLS Hold-Queue (GPD Mapper [IPP]) - :632
3 - Port 631 (GPD TLS Input (GPD [IPP]))	GPD: Normal print + PDF by email	6 - Normal + PDF Print (Postscript Processor)	5 - Standard TLS Output (GPD Mapper [IPP]) - Destination delivere...
3 - Port 631 (GPD TLS Input (GPD [IPP]))	GPD: Normal print	5 - Normal Print (Postscript Processor)	5 - Standard TLS Output (GPD Mapper [IPP]) - Destination delivere...

The screenshot of the configuration dialog for '**Logical Printer**' shows the required configuration for each logical printer.

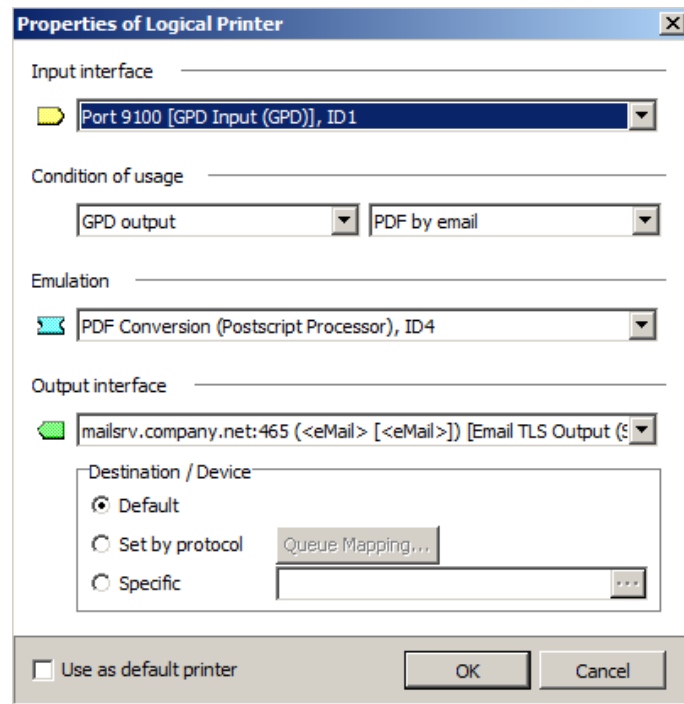
1. Encrypted Logical Printer for generating PDF documents for all configurations in which both printouts and PDF documents are to be created.



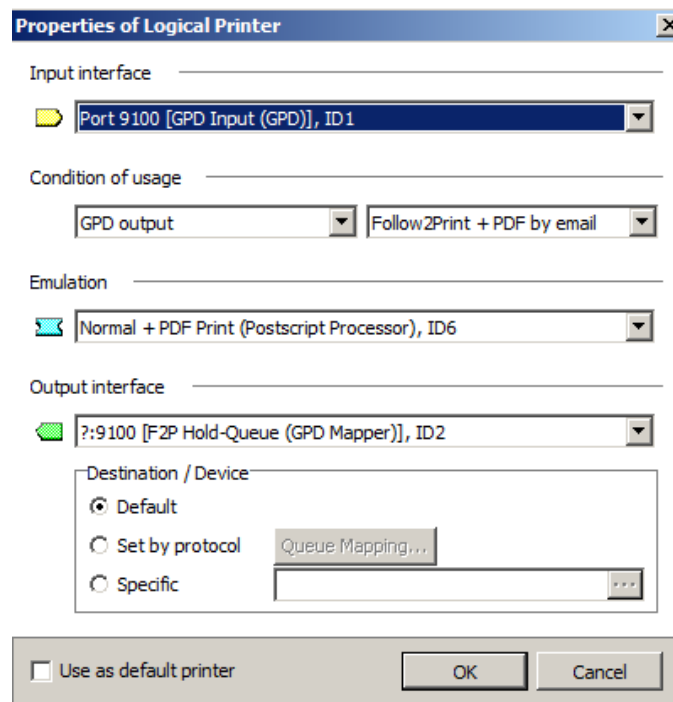
2. Follow2Print processing of print data from a remote Mercury OMS server.



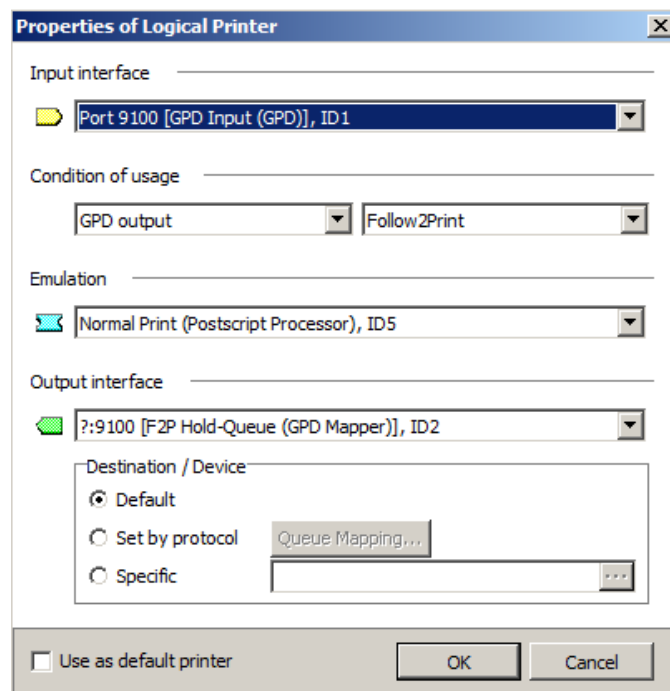
3. Local processing of Global Printer Driver print data from which only one PDF document is to be created.



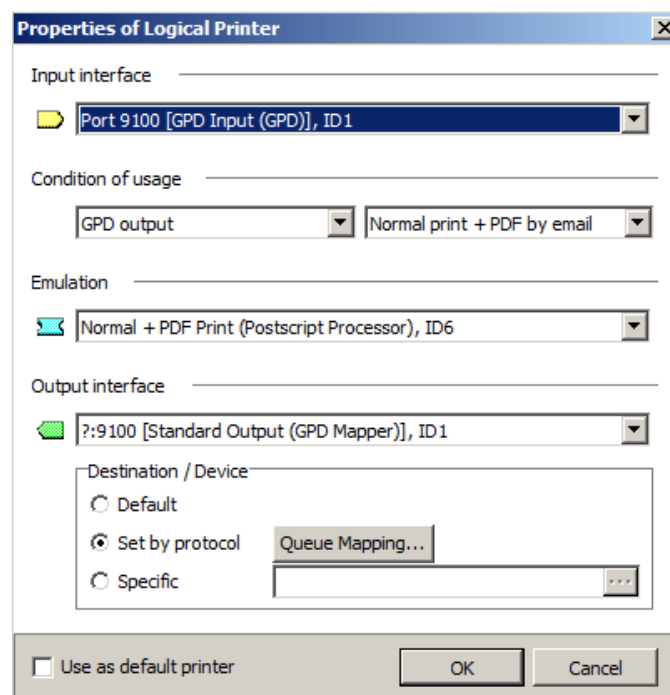
4. Follow2Print processing and PDF generation of Global Printer Driver print data.



5. Follow2Print processing without PDF generation of Global Printer Driver print data.

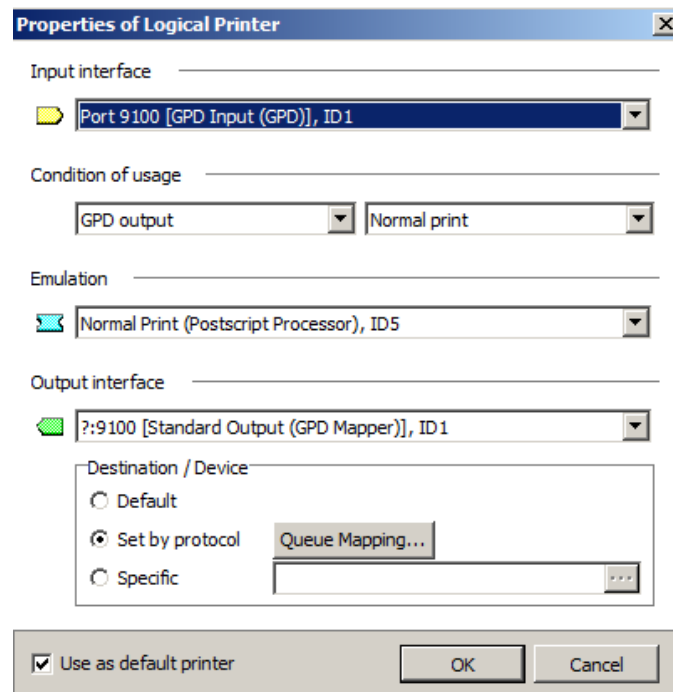


6. Direct processing and PDF generation of Global Printer Driver print data.

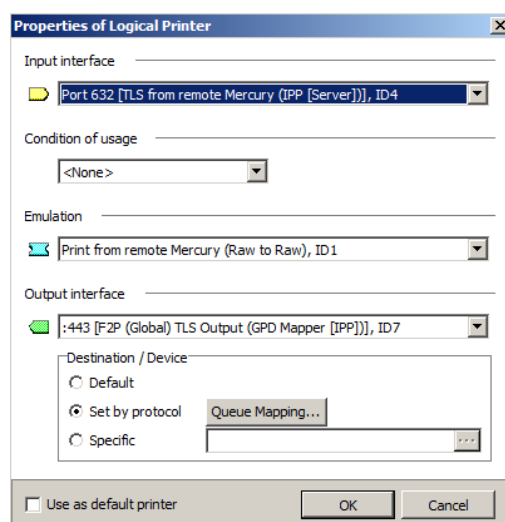




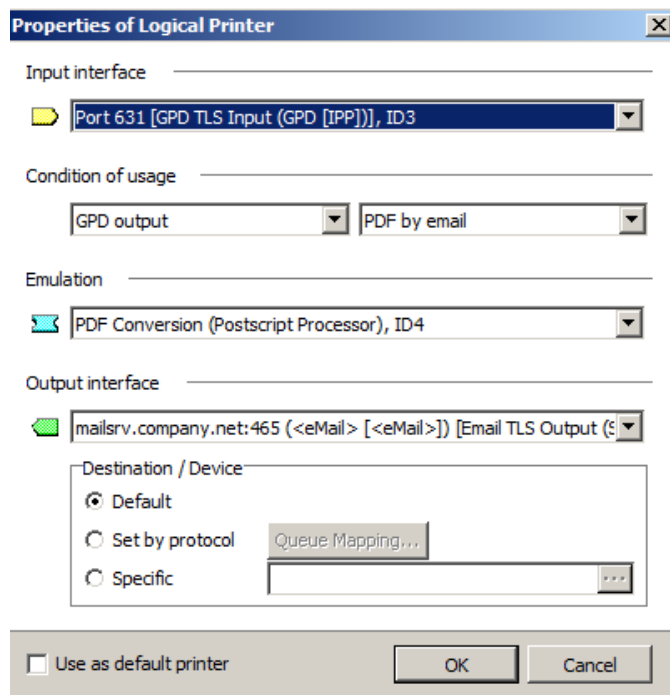
- Local direct processing without PDF generation of Global Printer Driver print data. This logical printer is labeled as a 'default' processing path that is used whenever the print data cannot be assigned to any of the other defined logical printers.



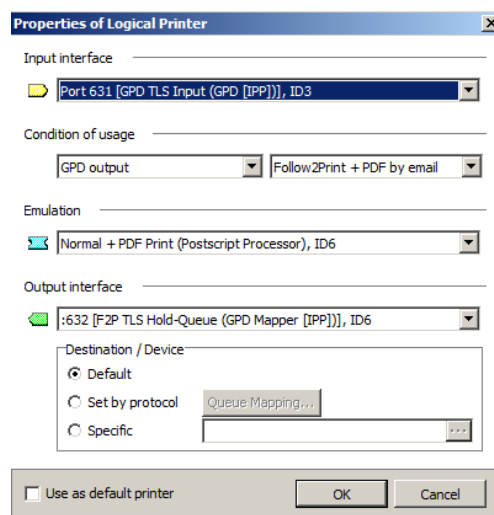
- Encrypted Follow2Print processing of print data from a remote Mercury OMS server.



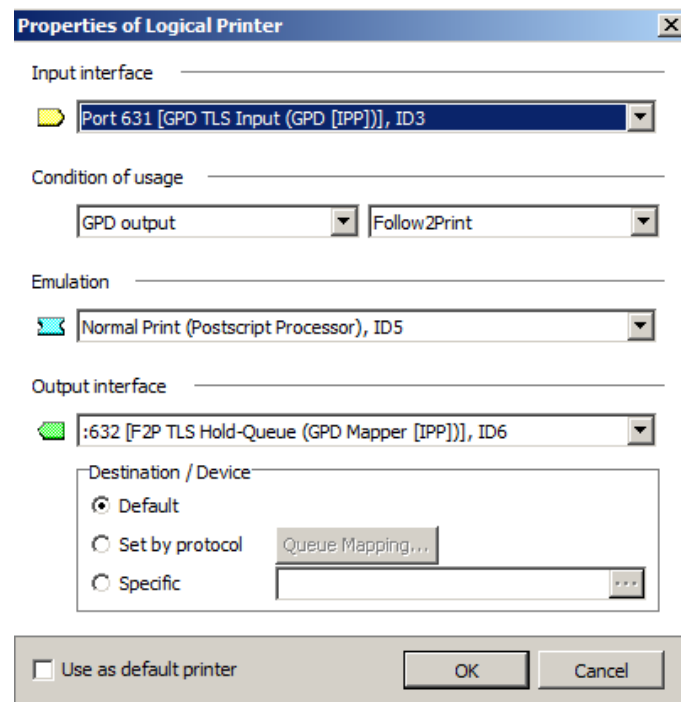
9. Encrypted local Processing of Global Printer Driver print data from which only one PDF document is to be created.



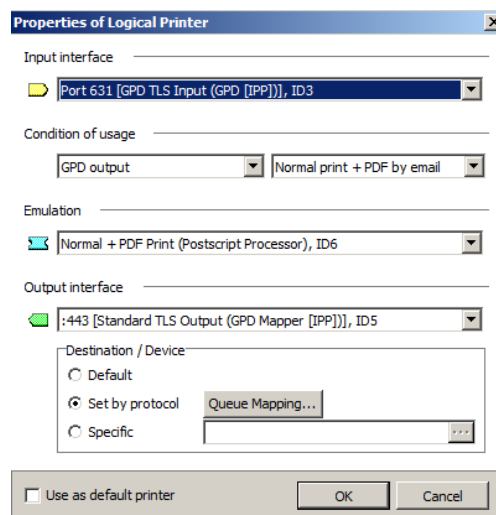
10. Encrypted Follow2Print processing and PDF generation of Global Printer Driver print data.



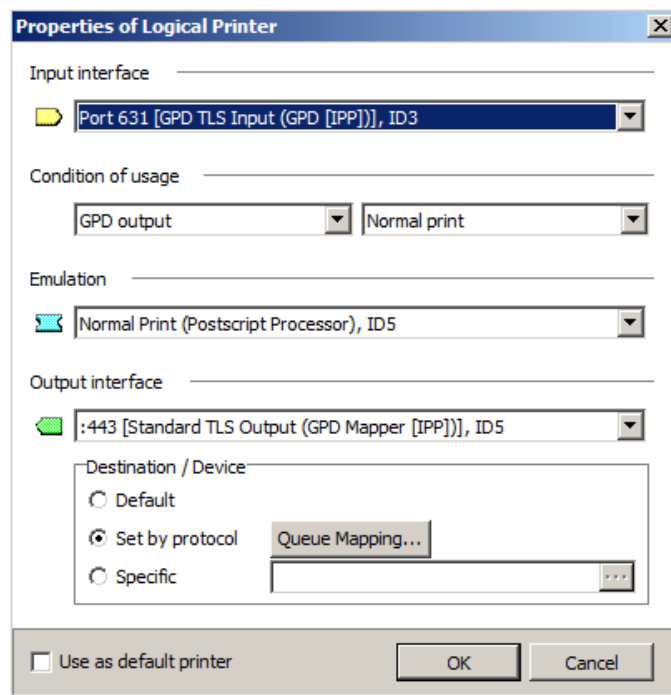
## 11. Encrypted Follow2Print processing without PDF generation of Global Printer Driver print data.



## 12. Encrypted direct processing and PDF generation of Global Printer Driver print data.



### 13. Encrypted local direct processing without PDF generation of Global Printer Driver print data.



## 10 Setting up encrypted printing

The launch of docuFORM Mercury V10 will coincide with the coming into force of the new European Data Protection Regulation GDPR. In addition to encrypting personalized data, Mercury V10 now also encrypts and transmits all print data itself, from creation to output, in the network, and finally decodes and outputs it in the printing system itself. By using the IPPS transmission protocol, docuFORM Mercury dispenses with any hardware additions, all the way to the output device. It can therefore be said to be a true end "2" end encryption.

Mercury V10 can work independently with individual encryption certificates. The entire system can also be fully integrated into a company's certificate policy. As part of the manufacturer-independent follow "2" print solution, Mercury V10 also guarantees end-to-end encryption of all print data.

If the user opts for an encrypted print, this is also carried out completely. The user is prompted to output to a corresponding IPPS-capable device. If they authenticate themselves to an encryption-free device, the print data remains secure and cannot be output on it, thus ensuring consistent encryption and data security.

Of course, the same functionality is also guaranteed when using the Mercury Global Printer Driver (GPD). End "2" end encryption is guaranteed at all times both for direct printing, as well as within the GPD follow "2" print workflow. The user can fully enjoy the ease of use of the Mercury GPD, whereby the encryption options for each individual device are visually and interactively offered to them.

All Mercury field installations can be upgraded to Mercury V10. In addition, the newly developed Mercury IPPS Transfer Module is required for end "2" end encryption. The certificate management complies with Microsoft specifications and can be individually configured within the scope of the respective installation.

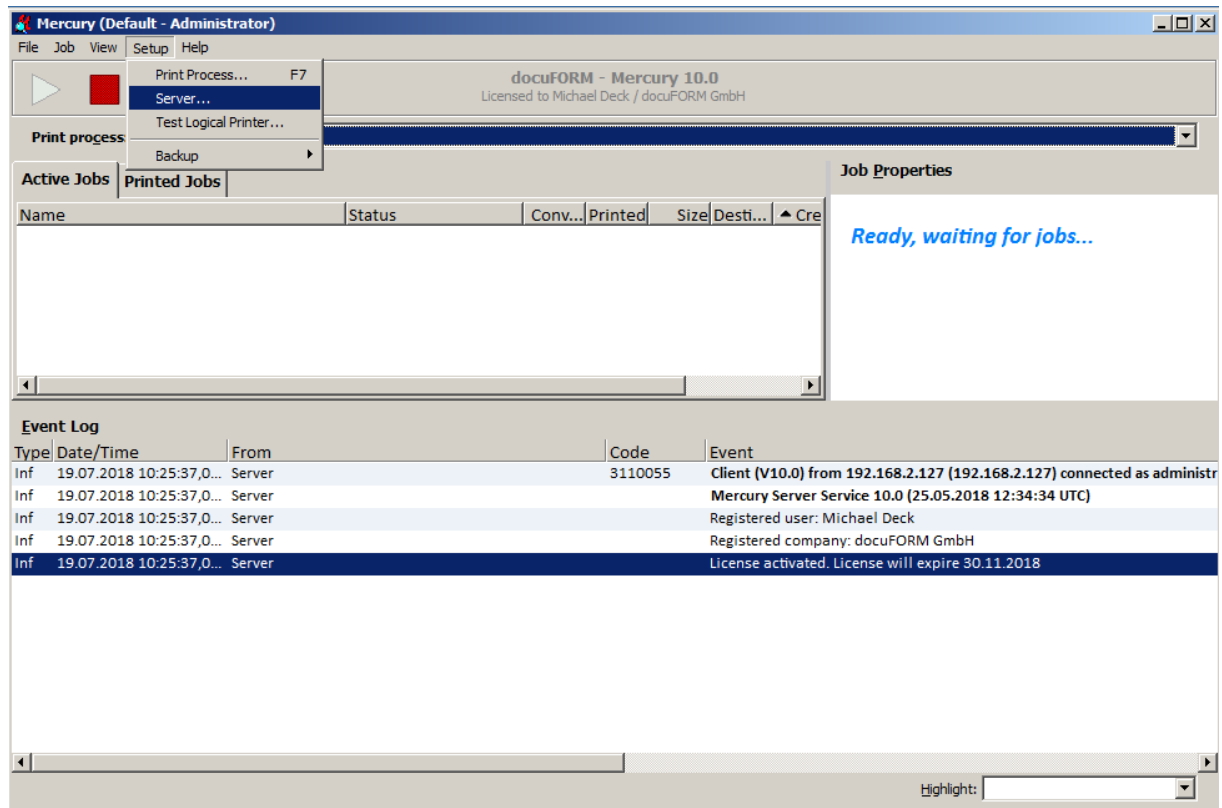
The following is an example of how to create an encrypted IPPS workflow in the Mercury V10 software without data conversion.

## **10.1 Preparation of the end devices**

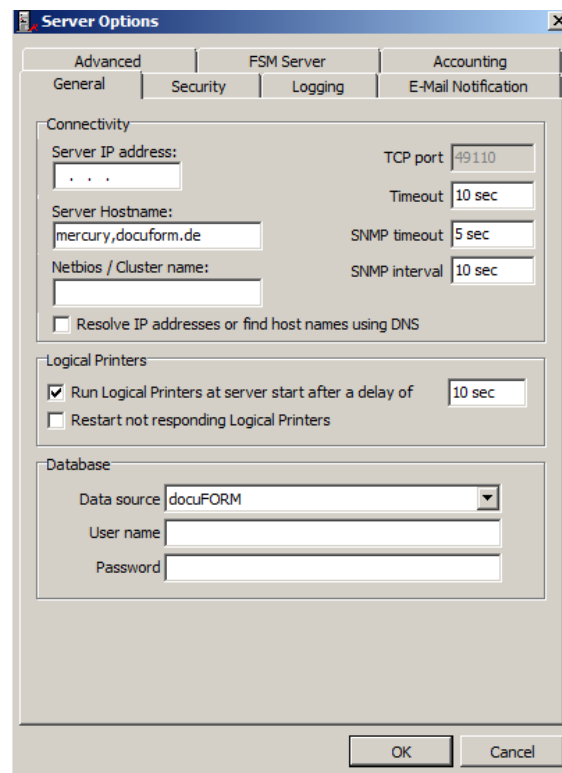
Before you start installing the encrypted workflow in Mercury V10, you should prepare your printer or MFP. First, the SSL / TLS encryption should be activated on the printer and the corresponding certificates should be installed on the system. Please proceed as described by following the individual manufacturer instructions. These can be found under the respective manufacturer on the homepage. Note also, the printer driver must be configured accordingly - it is important to select a shared printer by name and then enter in the URL field: "http: // IP address of the device / ipp" (where "IP address of the device" stands for the IP address of the device or the node name). Be sure to enter "https: //" and not "http: //" as printing over IPP is not secure. Again, proceed exactly according to the instructions of the respective manufacturer.

## **10.2 Activation of TLS / SSL in server options**

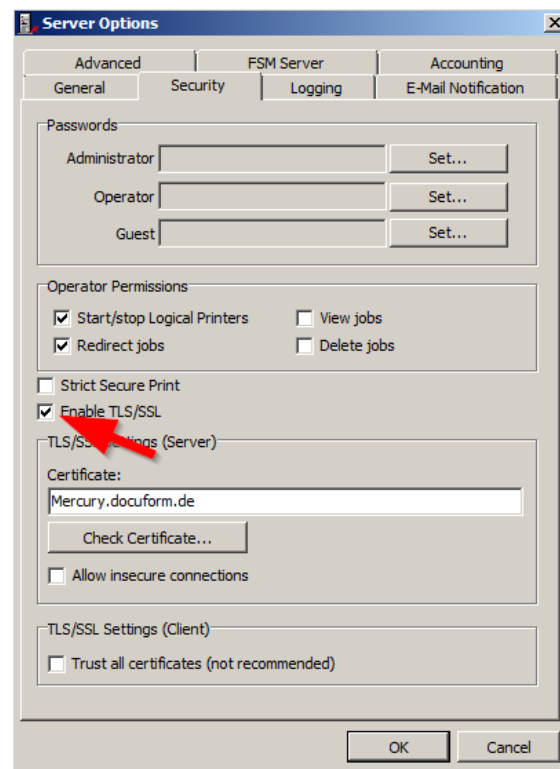
To activate the TLS / SSL encryption, select the entry 'Server' within the menu 'Setup'.



**General:** The host name entered in the "Server Hostname" field must correspond with the host name entered in the certificate used.

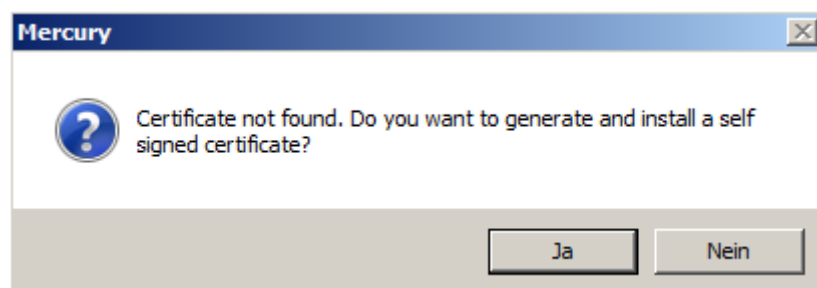


Check the box "Enable TLS / SSL" under Security.

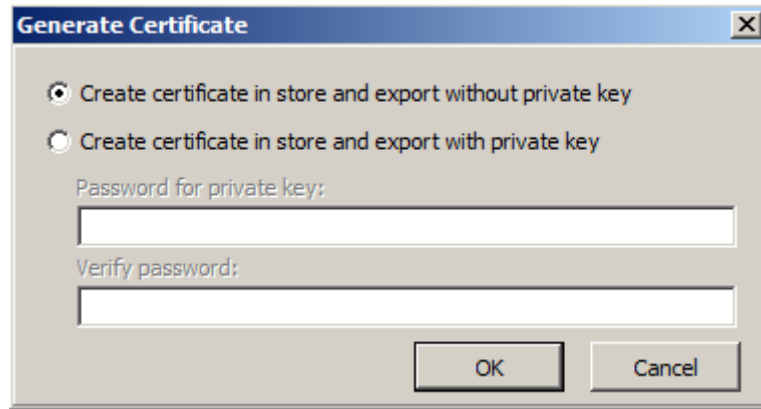


In the input field 'Certificate' of the "TLS / SSL Settings (Server)" area the certificate is stored which is used for encrypted communication. The certificate must exist in the Windows certificate store. The specified text is searched for in the subject of the certificate (for example, CN name).

Next, click "Check Certificate" to check the certificate. The specified certificate is searched for in the Windows certificate store. If found, information about the certificate, such as serial number or expiration date, is displayed. If the certificate was not found, a self-signed certificate can be created and added to the Windows certificate store. The message 'Certificate not found' appears and asks if you want to create a certificate.

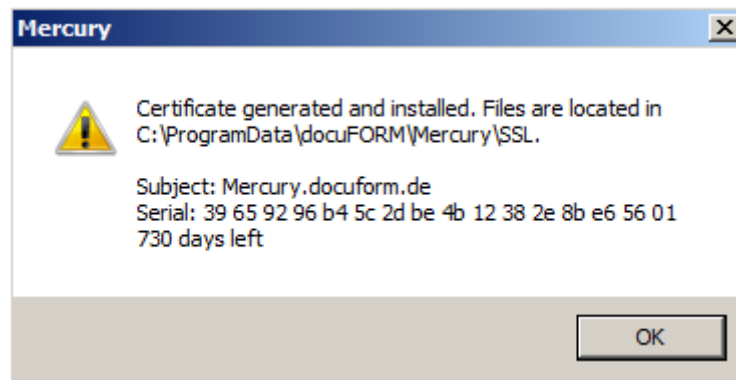


You have two options to create a certificate: with or without a private key.



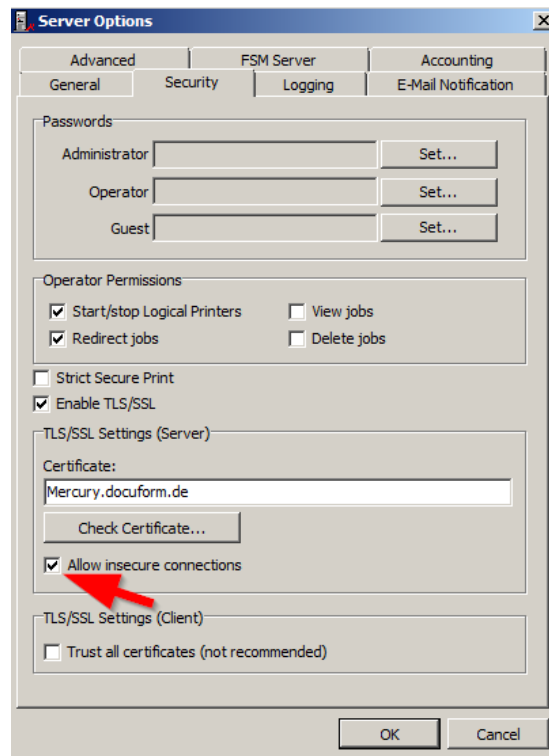
Certificate files in various formats are also stored in the SSL subdirectory of the Mercury ProgramData directory. If the private key of the generated certificate is to be stored in a keyfile, a passphrase must be specified.

By confirming with OK you will receive the following message:

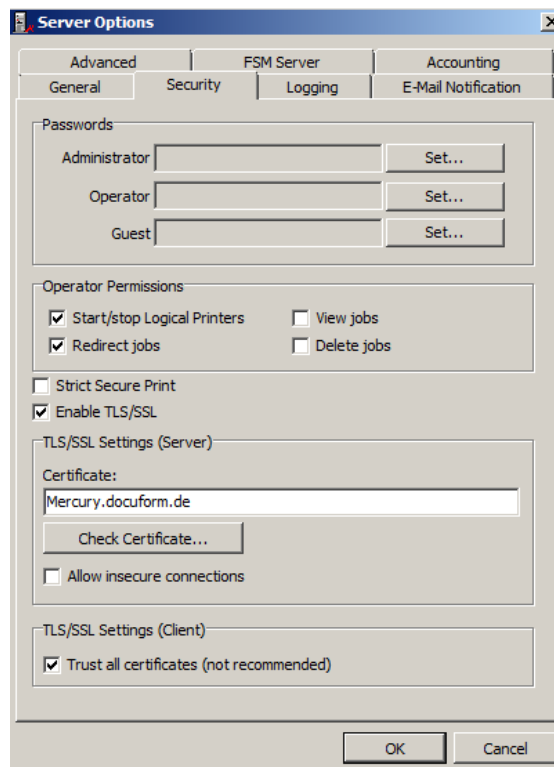


You now have the option to accept unencrypted connections under "Allow insecure connections". However, this is only recommended when using card reader / printer apps that do not support TLS / SSL encryption.





The final checkbox is "Trust all certificates" option. It is not recommended to enable this as it disables the certificate validity check for all certificates. Use this option only to achieve TLS / SSL encrypted communication without checking the validity of the server certificate.



Configure the other options as required:

*Strict Secure Print:* If this option is activated, encrypted transmitted print data will only be output to printers that support encryption - i.e. the entire transmission path is encrypted.

*Allow insecure Connections:* If this option is activated, insecure connections will also be allowed on the XML-RPC server, which is responsible, among other things, for communicating with card readers and printer apps. This may be necessary in environments with older apps and card readers that do not support secure connections.

*Trust all certificates:* This affects all outgoing connections, e.g. For example, TLS connections (ipps) to printing systems or communication with other Mercury systems. If this option is activated, the authenticity of the certificate is not checked. **Activation of this option is not recommended!**

Advanced: Configure here the IP address of the FSM server, and optionally the IP address of the index server.