# Print Director™

## TECHNICAL REQUIREMENTS

Document revision date:
27/11/2023

**Blue Swift**
T E C H N O L O G I E S

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Document revision date: 2023/11/27

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# Document Objectives

This document outlines the minimum and recommended hardware and operating system requirements for the Print Director suite of applications. It provides a brief description of each software module and specifies the port usage requirements.

# Database Requirements

Print Director supports all versions of Microsoft SQL Server from 2012 to 2022. Express versions are fully supported. Please consult the Microsoft literature for the minimum requirements.

# Print Server Requirements

The minimum and recommended requirements listed below are expressed with the assumption that the server will not be running any other services (e.g. domain controller, Exchange, etc). Should the server be running other services, the specifications below should be adjusted accordingly.

## *Operating System*

- PDServer, Resource Manager: All Windows desktop operating systems from Windows 7 upwards. All Windows Server operating systems from Server 2008 R2 upwards.
- PDAgent, PDReports, DBTools: All Windows desktop operating systems from Windows 7 upwards. All Windows Server operating systems from Server 2008 R2 upwards.

## *Runtime*

- .Net Framework 4.8 and above.

## *Free Hard Drive Space*

### Installation Files

The Print Director modules installed on a Print Server will use approximately 200MB of hard drive space.

### Hard Drive Containing the Spool Folder (Print Servers or PCs with local print queues)

More importantly, the size of the hard drive on which the spool folder is hosted must be correctly allocated. The PDAgent holds the spool files for printers in Secure Document Release mode on the machine with local print queues. Under this mode, the user must release their jobs at the device. Until the jobs are  released, these spool files will be using space on the hard drive. An auto-delete timeout can  be set to limit the amount of time the jobs wait for release.

The amount of space required depends on how image intensive the majority of jobs are.

Recommendations for mostly text-based printing:
- 0-5 multi-functional printers (MFPs): 40GB free space
- 20-50 MFPs: 100GB free space
- 50-100 MFPs: 200GB free space

Recommendations for image intensive printing (e.g. advertising industry):

- 0-5 multi-functional printers (MFPs): 200GB free space
- 20-50 MFPs: 500GB free space
- 50-100 MFPs: 1TB free space

## *RAM*

The minimum requirement for RAM is 2GB. The recommended requirements are based on the number of MFPs hosted by the PDServer:

- 0-4 MFPs: 4GB
- 5-20 MFPs: 8GB
- 20-100 MFPs: 12GB

## *CPU*

The minimum required CPU speed is 1.5Ghz single core. Recommended:

- 0-10 MFPs: 2Ghz dual core
- 10-40 MFPs: 2.6Ghz dual core
- 40-100 MFPs: 2.6Ghz quad core

# Module Description

## *PDAgent*

.Net Framework 4.8 windows service (supports Windows 7 and above, Server 2008 R2 and above)

- Monitors the print queues for the MFPs and printers.
- Holds jobs sent to local print queues.
- Waits for communication from PDServer before releasing the jobs (i.e. user logs in and selects the jobs to be released).
- Required to be installed on the print server(s) or client PCs with local print queues or print-popup requirements.
- Connects to the SQL Server via .Net.
- Connects to PDServer(s) via web services.
- Can operate in offline mode (i.e. if the SQL Server connection is lost it caches transactions to a local DB).

## *PDServer*

.Net Framework 4.8 windows service (supports Windows 7 and above, Server 2008 R2 and above)

- Can be installed on a single server or multiple servers (multiple servers to prevent MFP authentication requests from traversing unreliable WAN links).
- Performs communication with the embedded applications on the MFPs (Authentication and PullPrint).
- Executes scheduled tasks (e.g. report emailing and active directory synchronisation).
- Does not necessarily have to be installed on the print server.
- PDAgents connect to PDServer(s) via web services.
- Can operate in offline mode (i.e. if the SQL Server connection is lost it caches transactions to a local DB).

## *Resource Manager*

.Net Framework Windows forms application (supports Windows 7 and above, Server 2008 R2 and above)
- Configuration module for print director.
- Used to maintain user settings (PIN numbers, email address, popup behaviours, etc).
- Used to configure printer settings (pricing, rules, etc).
- Used to install the embedded applications to the MFPs.
- Can be installed on any number of workstations and connected to the database.

## *PD Reports*

.Net Framework Windows forms application (supports Windows 7 and above, Server 2008 R2 and above)
- Reporting module for Print Director.
- Can be installed on any number of workstations and connected to the database.

## *DBTools*

.Net Framework Windows forms application (supports Windows 7 and above, Server 2008 R2 and above)
- Backup and restore of the DB.
- Clearing historical transactions.
- Can be installed on any number of workstations and connected to the database.

# Port Usage

The PDAgent and PDServer will make exceptions in Windows Firewall automatically. For other firewalls, please see the port requirements below:

## *PDAgent*

- Listens on TCP port 20111 for legacy (non-webservice) communication from other Print Director modules.

## *PDServer*

- Runs Http webservice on port 58113 for client PCs on Windows 8 and up.
- Runs NetTcp webservice on port 58114 for client PCs on Windows 7 and up.
- Listens on TCP port 20113 for legacy communication from other Print Director modules.
- Listens on port 58002 for communication from embedded Konica Minolta MFPs.
- Listens on port 5114 for communication from keypad attached MFPs.
- Listens on port 20115 for communication from embedded Lexmark MFPs.

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