

# PAPER-LESS

MANUFACTURING EXCELLENCE THROUGH SOFTWARE

# PAPER-LESS 5.4.22 HARDWARE & SOFTWARE REQUIREMENTS GUIDE

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# ABOUT PAPER-LESS 5.4.22

Paper-Less is a web-based Manufacturing Execution Solution for ERP (Enterprise Resource Planning) software such as INFOR XA, SAP, and Microsoft Dynamics.

In addition to workflow-focused integration, the Paper-Less application provides real-time production reporting, quality control, shorter manufacturing cycle times, faster inventory turnover, on-time deliveries, and enhanced cash flow for ERP users.

## CLIENT REQUIREMENTS

*These requirements apply to Customer provisioned hardware installations, and Paper-Less Cloud deployments.*

The Paper-Less client requires a web browser with the following specifications by profile.

- **Portal or Touchscreen**
  - Operating System: Windows, MacOS, ChromeOS
  - Screen Resolution: 1024 x 768 (minimum), optimized for 1920x1080.
  - Web Browser: Microsoft Edge, Google Chrome, or Mozilla Firefox.
    - Other web browsers may work, however, they are not certified or supported.
  - Supported Form Factors: Desktop & Tablet (Portal not optimized for Tablet)
- **Mobile**
  - Operating System: Android 8.0 or higher, or IOS 14.0 or higher.
  - Screen Resolution: 300 x 600 minimum, optimized for larger touch-based screens
  - Web Browser: Chrome, Edge, or Safari.
    - Other web browsers may work, however, they are not certified or supported.
  - Support Form Factors: Phone & Tablet (works on Desktop)

## ERP REQUIREMENTS

*These requirements apply to Customer provisioned hardware installations, and Paper-Less Cloud deployments.*

### INFOR XA

The Infor XA database resides and runs on the IBMi OS. Paper-Less, as well as Infor XA components, must be installed on your IBM Power System for proper operation. This installation requires the following IBMi OS and Infor XA applications to be licensed:

- 5770-WDS IBMi Licensed Programs:

IBMi 7.2+: 5770-WDS \*BASE + options 21, 31, 34 and 35

*\*BASE = IBM Rational Development Studio for i*  
*21 = Application Development Toolset*  
*31 = ILE RPG*  
*34 = RPG/400*  
*35 = ILE RPG \*PRV Compiler*

- The DB2 Query Manager and SQL Development Toolkit is required for some of the CAS Application Maintenance options and user exit programs when compiling RPG source with embedded SQL:

IBMi 7.2+: 5770-ST1 \*BASE

- Infor XA Version 7.x, 9.x and 10.x with the following modules:
  - Note: Users upgrading to XA Version 10, must be on iSeries Operating System V7R2M0 or newer.
  - Production Monitoring & Control
  - Inventory Management
  - Production Control & Costing
  - Purchasing

## **NON-INFOR XA ERP**

Paper-Less supports many ERPs through our Integration Platform. For more information about integration with SAP, Microsoft Dynamics Business Central (BC), Microsoft Dynamics Finance And Operations (F&O), or others, please contact our Customer Success team to inquire more.

## **SERVER REQUIREMENTS**

*These requirements apply to Customer provisioned hardware installations.*

The table below outlines the minimum server requirements for running Paper-Less on the IIS Application and SQL servers.

	<b>IIS Application Server</b>	<b>SQL Database Server</b>
<b>Processors / Cores</b>	1 / 4	1 / 4
<b>RAM</b>	16 GB	16 GB
<b>Storage</b>	512 GB	1 TB
<b>NIC</b>	100/1000 MB	100/1000 MB
<b>Operating System</b>	Windows Server 2016/2019/2022	Windows Server 2016/2019/2022
<b>Database</b>	NA	SQL Server 2016/2017/2019 or Higher

## **IIS APPLICATION SERVER REQUIREMENTS**

The following items are required configuration.

- Microsoft Edge/Google Chrome/Mozilla Firefox
- Static IP address or DNS Name
- ERP / Database specific driver/connector/provider
- Bi-directional access to ERP / Database

For software prerequisites, please consult the pre-installation checklist.

## **SQL DATABASE SERVER REQUIREMENTS**

It is recommended that OS, Database Files, and SQL Transaction Log files be kept on separate drives. Multiple drives will ensure data reads/writes are not bottlenecked to maximize throughput.

SQL Server Express is not supported.

For MSSQL on a VM – download and follow the latest Microsoft installation guidelines:

*Ex. Search Microsoft.com for “Running SQL Server in a Hyper-V Environment”, or “Running SQL Server in a VMWARE Environment”*

# ADDITIONAL REQUIREMENTS

## **INFOR XA ONLY - REPLICATION SOFTWARE**

Paper-Less **requires** standard XA journaling and will add the files below to that journal to detect data changes as part of its sync process. If these files are not journalled then Paper-Less will not receive updates from XA. **Note: If your organization uses replication software then changes may need to be made to work with multiple journals. Please contact your replication software vendor for more information.**

1. EMPMAS
2. EMPMSX
3. FACMST (used in ePDM environments)
4. ITEMASA (used in PDM environments)
5. ITEMBL
6. ITMENT (used in version 9 ePDM environments)
7. ITMRVA (used in version 7/9 ePDM environments)
8. ITMSIT (used in version 9 ePDM environments)
9. MBADREP
10. MBALREP
11. MBATREP (used by Pick to Ship add-on programs)
12. MBAWREP
13. MBAXREP
14. MBBFREP
15. MBB0REP
16. MBCDREP
17. MBCLREP (used by Pick to Ship add-on programs)
18. MBCNREP (used by Pick to Ship add-on programs)
19. MBC6REP
20. MBC8REP (used by Pick to Ship add-on programs)
21. MBDEREP
22. MBDJREP (used by Pick to Ship add-on programs)
23. MODATA
24. MODESC
25. MOMAST
26. MOROUT
27. POBLKT (normally journalled by XA, MPXJRN)
28. POITEM (normally journalled by XA, MPXJRN)
29. POMAST (normally journalled by XA, MPXJRN)
30. REASON
31. SITMST
32. SLDATA
33. SLQNTY
34. VENNAM
35. WHSMST
36. WRKCTR (used in PDM environments)