

# System Specifications

IM 2023, v9.00.00

Because each customer situation is unique, discuss system requirements with Data Innovations® Sales and Technical teams prior to any purchase. For budgetary and planning considerations, Data Innovations has outlined three categories of system specifications to provide guidelines for the type of system that will best suit the intended use of Instrument Manager™ (IM) and your production volume.

Low Complexity	Medium Complexity	High Complexity
<ul style="list-style-type: none"><li>• Lower volume environments (less than 1,000 samples per day)</li><li>• Instrument Manager used for connectivity-only (pass-through)</li><li>• Minimal use of additional IM modules</li></ul>	<ul style="list-style-type: none"><li>• Moderate production volumes (1,000-10,000 samples per day)</li><li>• Used for connectivity and active lab operations</li><li>• Data review with Rules for some instruments (other instruments connectivity-only)</li><li>• Light use of additional IM modules</li><li>• Moderate use of data Archiving</li></ul>	<ul style="list-style-type: none"><li>• Moderate to heavy production volumes (more than 10,000 samples per day)</li><li>• Heavy use system and lab environment</li><li>• Significant use of Rules for Autoverification</li><li>• Multiple users reviewing results in workspaces</li><li>• Multiple additional IM modules in use</li><li>• Longer term data archiving</li></ul>
<b>System Specifications (1)</b>	<b>System Specifications (1)</b>	<b>System Specifications (1)</b>
<ul style="list-style-type: none"><li>• 4 GB of RAM</li><li>• 80 GB HD (can be multiple drives)</li><li>• Dual Core Processor</li><li>• Supported 64-bit OS</li><li>• Microsoft® .NET Framework 4.6.2 or higher</li></ul>	<ul style="list-style-type: none"><li>• 8 GB of RAM</li><li>• Up to 1+ TB HD (can be multiple drives)</li><li>• Quad Core Processor</li><li>• Supported 64-bit Server OS</li><li>• Microsoft .NET Framework 4.6.2 or higher</li></ul>	<ul style="list-style-type: none"><li>• 12-16 GB of RAM</li><li>• Up to 5+ TB HD (can be multiple drives)</li><li>• 8 Core Processor</li><li>• Supported 64-bit Server OS</li><li>• Microsoft .NET Framework 4.6.2 or higher</li></ul>

## Supported Microsoft Operating Systems (64-bit)

- Windows® 10 Professional
- Windows 11 Professional
- Windows Server® 2016
- Windows Server 2019
- Windows Server 2022

## Mirroring and Read/Write Reporting Systems

**Disaster Recovery and High Availability** both use mirroring technology.

- The specifications must match the system chosen for the Acting Primary system.
- Ports 2188 and 443 are needed for Mirroring.

**High Availability** systems use Arbiters, which have these specifications:

- 4 GB of RAM
- 21 MB of disk space for installation
- Dual Core Processor
- Supported 64-bit OS
- Requires a system that operates 24/7, but does not need to be dedicated to this software
- Must not be installed/running on the Acting Primary or secondary mirror system

**Read/Write Reporting** systems, used for Laboratory Intelligence: Specifications must match those of the Acting Primary system, plus an additional 20% storage for indexing.

# End User Specifications

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## Thin Client Deployment

Suggested Operating Systems <sup>(2,3)</sup>	Installation Requirements
Same as Primary system	<ul style="list-style-type: none"><li>• Microsoft .NET Framework 4.6.2 or higher</li><li>• Administrative privileges – Local Administrator login or local user account access with administrator privileges</li></ul>
Memory Specifications <sup>(3)</sup>	Usage Requirements
256 MB (16 MB additional memory required on the base system)	<ul style="list-style-type: none"><li>• Read, write, and delete access to the shared Instrument Manager folder on the base Instrument Manager workstation</li><li>• Local user access – on the Thin Client Computer workstation</li></ul>
Hard Disk Specifications <sup>(3)</sup>	Network Specifications <sup>(4)</sup>
<ul style="list-style-type: none"><li>• Approximately 50 MB for the installation</li><li>• 7200 RPM or higher</li></ul>	<ul style="list-style-type: none"><li>• Network interface card installed (NIC)</li><li>• TCP/IP networking installed</li><li>• Remote Procedure Call (RPC services) must be running for driver configuration</li></ul>
Hardware <sup>(5)</sup>	Supported Browsers
Monitor with minimum 1024 x 768 resolution (1920 x 1080 for web user interface content), keyboard, mouse, CD/DVD drive for install disk, and an optional bar code scanner	<ul style="list-style-type: none"><li>• Microsoft Edge®</li><li>• Google Chrome®</li></ul> <p><b>NOTE</b> Data Innovations validates these browsers. We suggest you perform validation testing on any other browsers you use.</p>

## Browser-Based Deployment (Microsoft Remote Desktop)

- Client computers must have a version of Remote Desktop Connection (RDC) that supports at least Remote Desktop Protocol (RDP) 6.1.
- Minimum 256 MB of additional memory allocated on the server per client PC connected.

## Open Database Connectivity (ODBC)

The InterSystems ODBC driver must be loaded and a System Data Source Name (DSN) connection must be established. You must use InterSystems' ODBC driver with ODBC Database Access (IM-ODBC-01).

1. Contact Data Innovations' Sales by calling (888) 299-1750 or emailing [northamerica-sales@datainnovations.com](mailto:northamerica-sales@datainnovations.com) to discuss the specific intended use of Instrument Manager and production volumes prior to purchasing computer equipment.
2. Microsoft server class operating systems support a maximum of five Thin Clients out of the box. Additional Thin Clients can be supported by purchasing additional Client Access Licenses (CALs) from your authorized Microsoft distributor.
3. The specifications listed are necessary for Instrument Manager Thin Client use. Remember to include operating system and other application software and hardware requirements to ensure full functionality.
4. It is recommended that the Primary Instrument Manager system be installed with a Static IP address.
5. The Bar Code Scanner to be used with Specimen Storage and Retrieval (SSR), Manual Result Entry (MRE), and Specimen Management (SM) Workspace within Instrument Manager.