

# System Specifications

IM 2020, v8.17.30

Each customer situation is unique and system requirements must be discussed with Data Innovations® Sales and Technical teams in advance of any purchase. For budgetary and other 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™ and your production volume. *Contact Data Innovations' sales by phone ((888) 299-1750) or email ([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.*

Low Complexity	Medium Complexity	High Complexity
<ul style="list-style-type: none"> <li>Lower volume environments (&lt;1K <b>samples/day</b>)</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 (1K-10K <b>samples/day</b>)</li> <li>Used for connectivity and active lab operations</li> <li>Data review with Rules for some instruments (other instruments on 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 (&gt;10K <b>samples/day</b>)</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>
<i>System Specifications<sup>1</sup></i>	<i>System Specifications<sup>1</sup></i>	<i>System Specifications<sup>1</sup></i>
<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> </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> </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> </ul>

## Read/Write Reporting System Specifications

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

## Supported Operating Systems (64-bit)

- Windows 8.1 Professional
- Windows 10 Professional
- Windows Server 2012 R2
- Windows Server 2016
- Windows Server 2019

## Mirror Set Specifications

- Disaster Recovery and High Availability both use the mirroring technology. The system specifications must match the system chosen for the Acting Primary system.
- Ports 2188 and 443 are needed for Mirroring
- High Availability systems use an Arbiter which have the following specifications:
  - 4 GB of RAM
  - 21 MB of disk space
  - Dual Core Processor
  - Supported 64-bit OS
  - Does not need a dedicated system
  - Must not be installed/running on the Acting

# End User Specifications

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## Thin-Client Deployment

### Supported Operating Systems <sup>2,3</sup>

- Same as Primary system.

### Memory Specifications <sup>3</sup>

- 256 MB (16 MB additional memory required on the base system)

### HardDisk Specifications<sup>3</sup>

- Approximately 50 MB for the installation
- 7200 RPM or higher

### Other (Hardware) <sup>6</sup>

- 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

### Requirements to Install

- Administrator privileges - Local Administrator logon or local user account access with administrator privileges

### Requirements to Use

- Read, write, and delete access to the shared Instrument Manager folder on the base Instrument Manager workstation
- Local user access – on the Thin Client Computer workstation

### Network Specifications <sup>4,5</sup>

- Network interface card installed (NIC)
- TCP/IP networking installed
- Dynamic Host Configuration Protocol (DHCP) or Static IP address
- Ports 1972, 57772, and 443 are needed to communicate with Caché
- Remote Procedure Call (RPC services) must be running to configure IM drivers

### Supported Browsers<sup>7</sup>

- Microsoft™ New Edge (Chromium)
  - Microsoft™ Edge
  - Microsoft™ Internet Explorer 11
- Note: Internet Explorer 11 is required to view screens which open an embedded browser inside of Instrument Manager.*
- Note: Data Innovations validates on the browsers listed. We suggest you perform validation testing on other browsers.*

## 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.
- ActiveX Client Control must be installed and active.

### Notes

<sup>1</sup> Contact Data Innovations' sales by phone ((888) 299-1750) or email ([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.

<sup>2</sup> Microsoft server class operating systems support a maximum of five (5) Thin Clients out of the box. Additional Thin Clients can be supported by purchasing additional CAL(s) from your authorized Microsoft distributor.

<sup>3</sup> 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.

<sup>4</sup> It is recommended that the Primary Instrument Manager system be installed with a Static IP address.

<sup>5</sup> The InterSystems Caché ODBC driver must be loaded and a System DSN connection must be established if the ODBC Database Access module has been licensed and will be used on the Thin Client workstation. Must use InterSystems' Caché ODBC driver with ODBC Database Access (IM-ODBC-01).

<sup>6</sup> The Bar Code Scanner to be used with Specimen Storage and Retrieval (SSR), Manual Result Entry (MRE), and SM Workspace within Instrument Manager.

<sup>7</sup> Other browsers, such as Google Chrome, Mozilla Firefox, etc., may be compatible with Microsoft's Remote Desktop Web (RD Web) but they have not been tested and their capabilities and/or restrictions are unknown.