



# i-Vu® Pro v6.5

## Operating System Requirements



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Important changes are listed in **Document revision history** at the end of this document.

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# i-Vu® Pro v6.5 client, server, operating system, and database requirements

## i-Vu® Pro client requirements

The i-Vu® Pro system can be viewed on the following client devices and web browsers.

### Computers

The client computer should have at least:

- Dual core processor
- 1.5 GB RAM
- Communications link of 10 Mbps or higher

The i-Vu® Pro application will work with slower computers and slower links, but the results may not be satisfactory.

A computer with this operating system...	Supports these web browsers...
Windows®	Google™ Chrome™ v44.0 or later <sup>1</sup> Internet Explorer® v11 Desktop Microsoft® Edge Mozilla® Firefox® v39.0 or later
Mac® OS X® (Apple® Mac only)	Safari® v8 or later <sup>2</sup> Google Chrome v44.0 or later Mozilla Firefox v39.0 or later

1 Best performance

2 Best performance unless browser is running on a Mac® Mini or a MacBook:



**WARNING** If machine is running Mountain Lion 10.8x with an integrated Intel HD 400 graphics card, it will experience display issues. Use one of these workarounds for better performance:

- If an additional NVIDIA graphics card is available, manually switch the graphic card setting in MAC® OS X® to use that card.
- If not, use Google™ Chrome™ v44.0 or later.

## Mobile devices

### NOTES

- Most mobile devices do not support plug-ins (Java Runtime Environment, Flash, PDF reader, etc.) so some i-Vu® Pro add-on applications and other features may not work. The following do support plug-ins:
  - Surface Pro with IE 11 Desktop
  - Surface 3
- Touch functionality on mobile devices not tested by Carrier may or may not work with the i-Vu® Pro application. Use at your own risk.

<b>A tablet with this operating system</b>	<b>Web browser</b>	<b>Tested tablets</b>
iOS	Safari v8 or later	Apple® iPad®
Windows® RT	Internet Explorer® 11 or Metro-style Internet Explorer® 11	Microsoft® Surface
Windows® 8.1 Pro	Internet Explorer® 11 or Metro-style Internet Explorer® 11	Microsoft® Surface™ Pro
Windows® 10	Internet Explorer® 11 Microsoft® Edge	Microsoft® Surface™ Pro Microsoft® Surface™ 3
Android™	Google™ Chrome™ v23.0 or later	Google™ Nexus™ 7 and 10
<b>A smart phone with this operating system</b>	<b>Web browser</b>	<b>Tested smart phones</b>
Android™	Google™ Chrome™ v44.0 or later	Nexus 6
iOS	Safari v8.4	Apple® iPhone 6 Apple® iPhone 6 Plus
Windows® Phone 10	Microsoft® Edge	Nokia Lumia™ 830

## i-Vu® Pro server requirements

The recommended minimum for an i-Vu® Pro server:

- Dual core processor
- 4 GB RAM
- 30 Gigabyte Hard drive
- Communications link of 10 Mbps or higher

The i-Vu® Pro application will work with slower computers and slower links, but the results may not be satisfactory.

The memory requirements for the i-Vu® Pro server will vary based on the:

- number of pieces of equipment and device instances
- size of the control programs
- number of simultaneous users logged in to the i-Vu® Pro application
-

For this size system...	With this number of...		The computer should have at least a dual core processor and...				
	Instances of equipment and devices	Physical Points and Display Objects	Passmark Total Score <sup>1</sup>	Passmark Single-threaded Score	RAM Minimum/Recommended	JVM Memory Minimum/Recommended	Operating system
<b>Small</b>	0 - 250	0 - 1000	2000	800	4 / 4GB	1 / 1GB	32 or 64-bit server <sup>2</sup>
<b>Medium</b>	250 - 1000	1000 - 5000	3000	1000	4 / 8GB	2 / 4GB	64-bit server
<b>Large</b>	1000 - 10,000	5000 - 50,000	5000	1400	6 / 12GB	4 / 8GB	64-bit server
<b>Huge</b>	more than 10,000	more than 50,000	6500	1600	16 / 16GB <sup>3</sup>	12 / 12GB	64-bit server

<sup>1</sup> For more information, see [www.CPUbenchmark.net](http://www.CPUbenchmark.net).

<sup>2</sup> If using 32-bit, you cannot use more than 1.2GB for the JVM.

<sup>3</sup> For a huge system with minimal user activity, the average piece of equipment or instance device requires approximately 300KB of server RAM. Contact Carrier Technical Support for server sizing recommendations.

## Operating system and database requirements

To determine which operating system and database management system (DBMS) to use, consider:

- Operating systems and DBMS's already in use in your customer's organization
- Project size and trending requirements. See "Trend archival requirements" below.
- Project budget
- Your skill with the operating system and DBMS

The i-Vu® Pro v6.5 system use of database resources may require a moderate increase in the number of allowed connections if your database management system is set to the default value for the maximum allowed connections.

### Supported operating systems and database management systems

A i-Vu® Pro v6.5 or later system is supported on the following operating systems (32-bit and 64-bit). The table below shows which operating systems can be used with each DBMS.

- Windows® 10 Professional
- Windows® 8.1 Professional and Enterprise
- Windows® 7 Professional and Ultimate
- Windows® Server 2012 R2
- Windows® Server 2008 R2
- Windows® Vista Business or Ultimate SP2

Database	Operating systems supported	Speed	Supports multiple servers	Dynamic defragmentation	Database replication	Notes
<b>SQL Server® 2012 Express R2 and 2008 Express R2</b>	Windows® (32-bit only)	Fast	No	Yes	Yes	<ul style="list-style-type: none"> <li>Database cannot exceed 10 GB.</li> <li>See <b>UPGRADE NOTES</b> below.</li> </ul>
<b>SQL Server® 2014 SP1, SQL Server® 2012 R2, and Server 2008 R2</b>	Windows® (32 + 64-bit)	Fast	Yes	Yes	Yes	<p>SQL Server® 2014 Enterprise, Business Intelligence, and Standard editions can be used.</p> <p>SQL Server® 2012 Enterprise, Business Intelligence, and Standard editions can be used.</p> <p>SQL Server® 2008 Workgroup, Standard, or Enterprise editions can be used.</p>
<b>MySQL 5.6</b>	Windows®	Fast	Yes	No	Yes	This open source database is free under the GNU Public License.
<b>PostgreSQL 8.4 and 9.4</b>	Windows®	Fast	Yes	Yes	Yes	This open source database is free under the BSD Public License.
<b>Apache Derby</b>	Windows®	Slow	No	No	Yes	<ul style="list-style-type: none"> <li>The i-Vu® Pro Installs for Windows include all the files needed to use an Apache Derby database.</li> <li>Only one application can access the database at one time. Example: VewBuilder cannot access the database if SiteBuilder is already running.</li> <li>Do not use Derby if total historical trend capacity will exceed 2 GB.</li> <li>Audit database cannot contain an entry of more than 32,700 characters; compact the database before migrating to Derby.</li> </ul>

## Trend archival requirements

Trend archival (historical trending) requirements are the most significant factors in database selection. Alarms are not usually an issue unless large quantities (10,000+) will be kept for online access.

For each archived trend sample, the i-Vu® Pro application stores approximately 30 bytes of data. Disk space requirements per trended point are:

<b>Sample interval</b>	<b>for 1 week</b>	<b>for 1 month</b>	<b>for 3 months</b>	<b>for 1 year</b>
<b>1 minute</b>	300 kB	1.5 MB	5 MB	18 MB
<b>5 minutes</b>	60 kB	250 kB	1 MB	4 MB
<b>15 minutes</b>	21 kB	85 kB	250 kB	1 MB
<b>1 hour</b>	5 kB	20 kB	60 kB	240 kB

For example, a system with 2000 points archiving at 15 minute intervals for one year will require as much as 5.6 GB (2000 x 2.8 MB) disk space.

### NOTES

- To limit disk space required for trend storage, archive trend data only for important system points.
- If your archival requirements are 5 GB or greater, you should consider using a separate server for the trend database.



## Setting up databases

The system folder must be located in the `\i-Vu_Pro_x.x\webroot` folder. The actual databases may be in another location if you are using MySQL, MS SQL Server, or PostgreSQL. See any of the following topics in the *i-Vu® Pro Installation Guide* for more information on setting up the databases:

PostgreSQL on Windows

MySQL on Windows

SQL Server 2012 R2 and 2008 R2 on Windows

## Document revision history

Important changes to this document are listed below. Minor changes such as typographical or formatting errors are not listed.

<b>Date</b>	<b>Topic</b>	<b>Change description</b>	<b>Code*</b>
8/17/16	i-Vu® Pro server requirements	Change recommended minimum to 4GB RAM	C-O-ZL-E

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