

# APPENDIX A: SYSTEM REQUIREMENTS

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# APPENDIX A: SYSTEM REQUIREMENTS

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## A. Overview

1. *Will I need a new computer to support ICMS?* If you have an older computer, use the System Requirements table in this appendix to determine if your system can run **ICMS**. If your system does not meet the minimum requirements, you will have to upgrade.
2. *Will I be able to use my ICMS computer for other functions?* You can use your **ICMS** computer for all your computer needs. Just make sure that your system has enough memory and a large enough hard drive to meet all your needs. Hard drive storage space and random access memory are relatively inexpensive. Buying extra storage space and memory will pay off in the end. Your system will function more efficiently and allow you to expand without upgrading immediately.
3. *Do I need any other software to run ICMS?* Yes. You must have Internet Explorer 6.0 or greater installed on your computer. Your computer does not have to be connected to the internet, but the web browser software must be installed. (**Note:** The installation for Internet Explorer 6.0 is included in the Prerequisites folder on the installation CD, if needed.) Also, make sure that your word processor is installed on the same computer. The system automatically accesses your word processor in order to print some of the Bureau forms.

SQL Server 2008 R2 Express Edition is included with the **ICMS** 8.20 installation package. If you wish to use a different version or edition of SQL Server, you must obtain, install, and configure that SQL instance separately. Using SQL Server Standard Edition is recommended for sites with very large collections and/or 6 or more concurrent users of **ICMS**.

***Your bureau may already have a license and/or preferred version of SQL Server Standard Edition you can use. To use a version of SQL Server other than that provided with the ICMS installation, contact your bureau or regional IT specialist.***

## B. System Requirements

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1. *What are the minimum system requirements for running the ICMS program?* The System Requirements table on the next page in this appendix lists the minimum and recommended system requirements. Check to make sure that your current system meets at least the minimum requirements. The minimum requirements are the lowest specifications that your system can meet for **ICMS** to run. It's fine if your system exceeds the recommended requirements.

**Note:** You should always refer to the system requirements for the current version of **ICMS**; these are for version 8.20.

## System Requirements ICMS Version 8.20

	Minimum	Recommended
<b>Operating System</b>		
Workstation	Windows XP Professional SP2*	Windows 7*
Server	Windows XP Professional SP2*, long filename support required.	Windows 2008 Server or later*
<b>Hardware</b>		
Workstation	CPU: Pentium IV, 1 GHz or faster RAM: 1 GB** Monitor: 17 inch super VGA Video: 1024 x 768 x 32 bit	CPU: Intel Quad Core, 3.0 GHz or faster RAM: 6 GB** or more Monitor: 20" widescreen Video: 1024 x 768 x 32 bit
Server	CPU: Pentium IV or compatible RAM: 4 GB	CPU: Intel Quad Core, 4.0 GHz or faster RAM: 12 GB or more
<b>Disk Storage</b>		
Workstation	500 MB available (use server specs if a stand-alone installation)	1 GB available (use server specs if a stand-alone installation)
Server	1.5 GB available (plus 25-100 KB per record, figure does not include storage of attached images and multimedia files)	2 GB available (plus 25-100 KB per record, figure does not include storage of attached images and multimedia files)
<b>Software</b>		
.Net Framework	Microsoft .Net Framework 4.0 (included on installation DVD)	Microsoft .Net Framework 4.0 or higher
Web Browser	Internet Explorer 6 SP 1 or greater (required for SQL Server 2008 installation)	Internet Explorer 6 SP 1 or greater (required for SQL Server 2008 installation)
SQL Server	SQL Server 2008 R2 Express Edition (Included on the installation DVD. For large network installations, we recommend SQL Server Standard Edition or better***)	SQL Server 2008 Standard Edition or better*** (Purchased separately by client. Recommended for large network installations.)
Windows PowerShell	Version depends on Operating System	Version depends on Operating System
<b>Network (for multi-user installations)</b>		
LAN	Speed: 10 Mbps File Sharing: Standard Windows file sharing (SMB)	Speed: 100 Mbps or greater File Sharing: Standard Windows file sharing (SMB)
WAN	Low-bandwidth environments (<10Mbps) require the use of a remote application delivery system such as Remote Desktop Connection or Terminal Server.	Low-bandwidth environments (<10Mbps) require the use of a remote application delivery system such as Remote Desktop Connection or Terminal Server.

\* ICMS is compatible with Windows XP, 7, 8, Windows Server 2003, 2008, 2008 R2, and 2012. Windows 2012 Server does not support SQL Server 2005 so you must use SQL Server 2008 or better. In some cases, Windows Vista is not compatible with ICMS.

\*\*SQL Server 2008 Express supports 1 physical processor, 1GB of memory, and 10GB of storage per database. Such limits do not exist for SQL Server Standard Edition or higher.

\*\*\*ICMS is compatible with SQL Server 2005, 2008, 2008 R2, and 2012.

2. *What is the maximum amount of disk storage space that my ICMS data will require?*

We can't tell you how large your system can become. There are many unlimited fields in ICMS. You can scan or cut and paste information or images from other programs into those large fields. In order to store all this additional information, you'll need plenty of hard drive space. The size you need depends on how much data you wish to store. There are no limits on the amount of information that you can store.

3. *Must I store my digital image files in the program on my hard drive?*

Yes. The program is configured to store both the image and thumbnail in the same location as the program. You cannot change this location.

There are several reasons that the images are now stored within the system instead of externally managed.

- The backup options now include the ability to backup images with the data. To perform this function, the images must be accessible and stored in a consistent location.
- The Web Catalog data transfer process needs reliable access to images.
- Image loss due to renaming or moving of folders will be prevented.

**Note:** You can change the location where multimedia files are stored however. See Chapter 9, Section VII.B.

4. *How do I estimate how much hard drive disk space I need for ICMS?*

Use the formula in the box to estimate the minimum amount of disk space on your hard drive you'll need for ICMS.

$$2 \text{ GB} + (25 \times \# \text{ of records})\text{KB} + (300 \times \# \text{ of images})\text{KB} = \text{estimated disk space needed for ICMS}$$

Each catalog record uses an average of 25KB and each image uses an average of 300KB. So you must multiply the total number of catalog records you have in each directory by 25, then multiply the number of images you have attached by 300. Add these two figures to 2,000,000 KB (2 GB). The answer will be the minimum hard drive space that you need for ICMS.

Example:

*Add your records from each directory together*

CR PARK	35,245
NH PARK	7,123
AR PARK	<u>1,512</u> (all levels)
	43,880

*Multiply that number by 25*

$$43,880 \times 25 = 1,097,000 \text{ KB (1,097 MB)}$$

*Multiply the number of images by 300.*

$$325 \text{ images} \times 300 = 97,500 \text{ KB (97.5 MB)}$$

***Add these two numbers plus 2,000 MB (2 GB) needed for the program and lexicons***

1,097 MB + 97.5 MB + 2,000 MB = 3194.5 MB (3.2 GB) disk space needed for your **ICMS**.

**Note:** Windows requires disk space for swap files. You should not allow your disk space to drop below 500 MB. If you have less than 500 MB available in the drive where **ICMS** resides, you should try to free up disk space, or upgrade your hard drive.

***See Appendix B: Installation and Setup for instructions on configuring your system. Refer to Appendix G: Imaging and Multimedia for more information on imaging.***