

Trimble

eCognition 8.64.0

System Requirements

Trimble Documentation:

System Requirements

eCognition Developer 8.64.0

Imprint and Version

Document Version 8.64.0

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Published by:

Trimble Germany GmbH, Trappentreustr. 1, D-80339 München, Germany

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Acknowledgements

Portions of this product are based in part on third-party software components:

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Day of print: 30 November 2010

Contents

1	Overview	1
1.1	Client Software	1
1.1.1	eCognition Developer 8.64.0	1
1.1.2	eCognition Architect 8.64.0	2
1.2	Server Software	2
1.2.1	eCognition Server	2
1.2.2	Image Proxy Server	2
1.3	License Server	3
1.4	Hardware Platforms	3
1.5	Operating Systems	3
1.5.1	Microsoft Windows Client Operating Systems	3
1.5.2	Microsoft Windows Server Operating Systems	4
1.5.3	Linux Server Operating Systems	4
1.5.4	eCognition 64-bit Edition	4
1.5.5	Graphics Cards for 3D Rendering	5
1.6	System Requirements by Component	5
1.6.1	eCognition Developer 8.64.0	5
1.6.2	eCognition Architect 8.64.0	5
1.6.3	eCognition Server	6
1.6.4	Image Proxy Server	10
1.6.5	License Server	11
2	System Requirements For Typical Setups	13
2.1	Standalone Desktop Environment	13
2.1.1	Minimum Hardware Requirements	14
2.1.2	Recommended Hardware Settings	14
2.1.3	Operating Systems	14
2.1.4	Validated Web Browsers	14
2.2	Small Development Site	14
2.2.1	eCognition Server (Windows)	14
2.2.2	eCognition Server (Linux)	15
2.3	Medium Size Production Site	17
2.3.1	Windows	17
2.3.2	eCognition Linux Server and Windows Image Proxy Server	18
2.4	Large Production Site	20
2.4.1	Clients	20
2.4.2	Server	20
2.4.3	Image Proxy Server	21

3	Detailed System Requirements for Linux Systems	23
3.1	Kernel Version	23
3.2	Runtime Dependencies	23
3.3	Perl	23
3.4	Red Hat	24
4	Example Packages That Meet Runtime Requirements	25
4.1	32-bit systems	25
4.1.1	Red Hat Enterprise Linux ES release 4 (Nahant Update 6)	25
4.1.2	Red Hat Enterprise Linux Server release 5.5 (Tikanga)	25
4.1.3	SuSE Linux Enterprise Server 9 (i586), Version = 9, Patchlevel = 4	25
4.1.4	SuSE Linux Enterprise Server 10 (i586), Version = 10, Patchlevel = 2	25
4.1.5	SuSE Linux Enterprise Server 11 (i586), Version = 11, Patchlevel = 1	25
4.2	64-bit systems	26
4.2.1	Red Hat Enterprise Linux ES release 4 (Nahant Update 8)	26
4.2.2	Red Hat Enterprise Linux Server release 5.5 (Tikanga)	26
4.2.3	SuSE Linux Enterprise Server 9 (x86_64), Version = 9	26
4.2.4	SuSE Linux Enterprise Server 10 (x86_64), Version = 10, Patchlevel = 3	26
4.2.5	SuSE Linux Enterprise Server 11 (x86_64), Version = 11, Patchlevel = 1	26
	Acknowledgments	27

1 Overview

eCognition Developer 8.64.0 is a comprehensive image analysis platform for multi-dimensional image analysis. It contains all the client and server software needed to extract intelligence from any digital image in a fully-automated or semi-automated way.

The client software is role-based and supports the needs and skills of different users in an organization. The server software, known as the eCognition Server, is a processing environment that allows the batch processing of jobs and is hugely scalable, capable of handling tens, hundreds or many thousands of images in a single job.

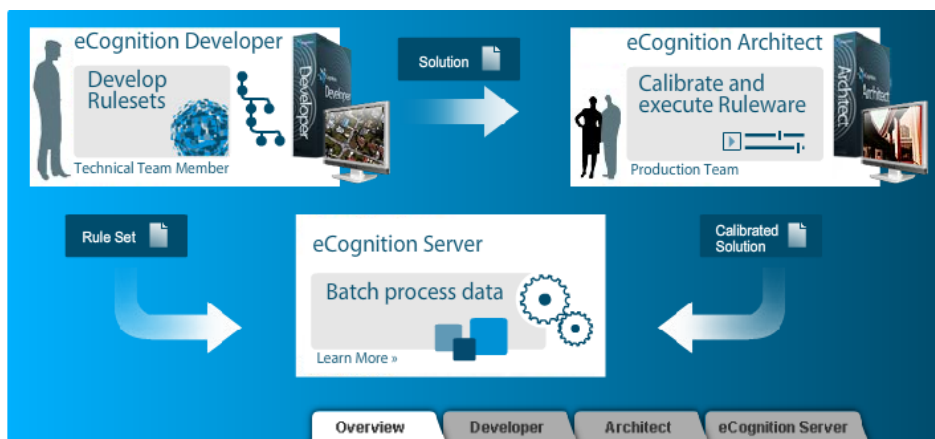


Figure 1.1. eCognition multi-dimensional image analysis software

1.1 Client Software

1.1.1 eCognition Developer 8.64.0

eCognition Developer 8.64.0 is a powerful and completely integrated environment designed for image analysis specialists to develop, test and package new image analysis applications. eCognition Developer 8.64.0 can be used as a standalone tool or in combination with the eCognition Server.

eCognition Developer 8.64.0 incorporates the latest generation of Trimble Cognition Network Technology®, enabling the creation of new solutions for multidimensional image analysis applications. It incorporates a new programming paradigm, high-performance

analysis for complex multidimensional data and sophisticated viewing, visualization and registration capabilities.

1.1.2 eCognition Architect 8.64.0

eCognition Architect 8.64.0 is an intuitive end-user tool used to configure and execute image analysis applications. It provides support for fully automated or semi-automated workflows and guides users through the application they are running. eCognition Architect 8.64.0 incorporates all the required tools for users to import, view and visualize multidimensional images and results.

1.2 Server Software

1.2.1 eCognition Server

The eCognition Server provides a processing environment for the batch execution of image analysis using a high-performance grid computing environment. Supported connectors and drivers are described in a separate document, Supported Connectors and Drivers.

1.2.2 Image Proxy Server

The Image Proxy Server (IPS) is a Microsoft Windows software component that provides high-performance image access and caching. A local IPS is installed automatically with each Trimble client.

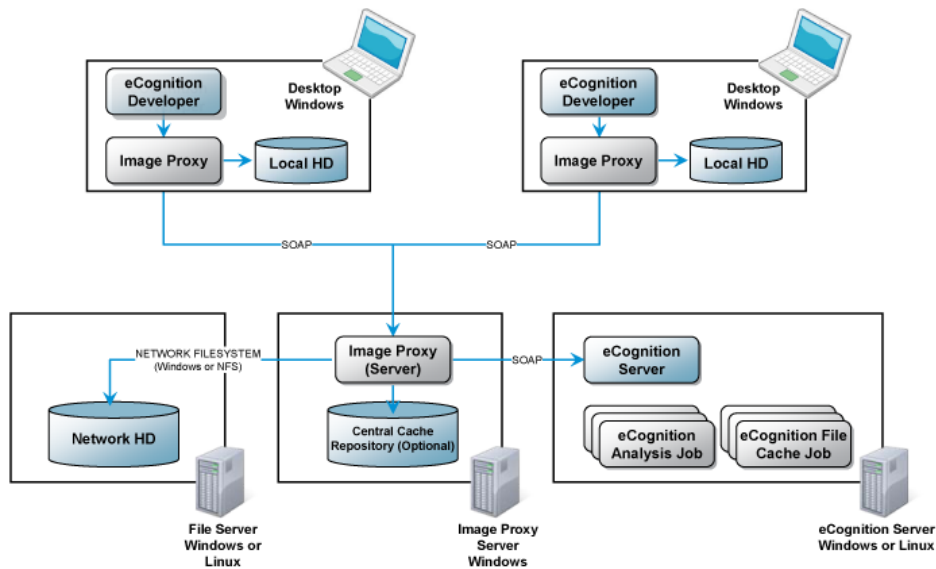


Figure 1.2. Recommended client-server configuration

The key functionality provided by the IPS includes:

- Delivering Windows-only file formats to eCognition Linux Servers (requires one Windows server)
- Creating and delivering zoom pyramids for large images
- Creating and delivering thumbnail caches for workspaces
- Creating and delivering an image statistics cache
- Creating and delivering cached zoom pyramids for thematic layers
- Creating and delivering cached raster representations of vector files

Data Storage and Cache Management

The Image Proxy Server creates and manages cache data, which can be stored in a sub folder with the original data or in a centralized repository connected to the Image Proxy Server (local disk or NAS). This cache can be sized appropriately for your environment. It uses a combination of maximum size, FIFO and minimum and maximum retention times. This caching can also be turned off by updating the default configuration.

1.3 License Server

Trimble software is soft license-protected using FlexLM Licensing Technology from Macrovision. The License Server is used to provide the available licenses to the software and can be used locally on a single machine or in a network environment.

You should install the License Server before installing other Trimble software. It can be run on any machine within the network that is constantly available. License Server can also be installed on the primary node of the .

1.4 Hardware Platforms

All Trimble products require an Intel x86- or Intel x86_64 hardware platform.

1.5 Operating Systems

Trimble software has been validated for the following operating systems:

1.5.1 Microsoft Windows Client Operating Systems

- Microsoft Windows XP Professional 32 Bit SP2
- Microsoft Windows XP Professional 64 Bit SP2
- Microsoft Windows Vista Ultimate 32 Bit
- Microsoft Windows Vista Ultimate 64 Bit SP2
- Microsoft Windows 7 Professional 32 Bit
- Microsoft Windows 7 Professional 64 Bit

1.5.2 Microsoft Windows Server Operating Systems

- Microsoft Windows Server 2003 32 Bit Enterprise Edition SP2
- Microsoft Windows Server 2003 64 Bit Standard Edition SP2
- Microsoft Windows Server 2008 32 Bit Standard Edition SP2
- Microsoft Windows Server 2008 R2 64 Bit Standard Edition

1.5.3 Linux Server Operating Systems

Pre-requisite libraries are required for each specific Linux distribution. These are documented in *Detailed System Requirements for Linux Systems* (p 23).

32-bit Systems

- Red Hat Enterprise Linux ES release 4 (Nahant Update 6)
- Red Hat Enterprise Linux Server release 5.5 (Tikanga)
- SuSE Linux Enterprise Server 9 (i586), Version = 9, Patchlevel = 4
- SuSE Linux Enterprise Server 10 (i586), Version = 10, Patchlevel = 2
- SuSE Linux Enterprise Server 11 (i586), Version = 11, Patchlevel = 1

64-bit Systems

- Red Hat Enterprise Linux ES release 4 (Nahant Update 8)
- Red Hat Enterprise Linux Server release 5.5 (Tikanga)
- SuSE Linux Enterprise Server 9 (x86_64), Version = 9
- SuSE Linux Enterprise Server 10 (x86_64), Version = 10, Patchlevel = 3
- SuSE Linux Enterprise Server 11 (x86_64), Version = 11, Patchlevel = 1

1.5.4 eCognition 64-bit Edition

eCognition is available as a native 32-bit or native 64-bit application – both 32-bit and 64-bit editions are compatible with 64-bit hardware and operating systems. Since a 64-bit operating system exhibits better memory management, it is the recommended platform for both the 32- and 64-bit editions of the eCognition Server software components.

Using the native 64-bit edition of the software is recommended when users are processing large images, as it enables the Analysis Engine to utilize more memory than the 2 GB limit for a 32-bit process. Rule sets developed using the native 64-bit operating system edition of eCognition should therefore be run on the corresponding 64-bit version of the eCognition Server, to avoid potential issues relating to memory constraints during batch execution.

Please note that Definiens Server components, Job Scheduler, Deployment Server and the Image Proxy Server all remain 32-bit components as these have no requirements to utilize additional memory.

1.5.5 Graphics Cards for 3D Rendering

Trimble clients allow multi-dimensional data analysis and display. To properly display 3D analysis results, an OpenGL 1.1+ capable NVIDIA or ATI graphics card with at least 64 MB RAM is required.

For notebooks, newer NVIDIA or ATI graphic cards such as ATI Mobility™ Radeon® 9600 will show correct results. Using other technologies, such as Intel Extreme Graphics or integrated graphics may cause incorrect results.

You can find detailed information on this subject *here*.¹

1.6 System Requirements by Component

1.6.1 eCognition Developer 8.64.0

Minimum Hardware Requirements

- Intel Pentium 4 or compatible / Intel Dual Core or compatible
- NVIDIA or ATI OpenGL graphics card
- 1 GB RAM
- 50 GB available hard disk space
- 1280 x 1024 display.

Recommended Hardware Requirements

- Intel Dual Core or compatible
- NVIDIA or ATI OpenGL graphics card
- 4 GB RAM
- 200 GB available hard disk space
- 1600 x 1200 display.

Operating Systems

All validated Microsoft Windows client operating systems can be used.

1.6.2 eCognition Architect 8.64.0

Minimum Hardware Requirements

- Intel Pentium 4 or compatible / Intel Dual Core or compatible
- NVIDIA or ATI OpenGL graphics card
- 1 GB RAM
- 50 GB available hard disk space
- 1280 x 1024 display.

1. www.vtk.org/Wiki/VTK_FAQ#What_Graphics_Cards_work_with_VTK

Recommended Hardware Requirements

- Intel Dual Core or compatible
- NVIDIA or ATI OpenGL graphics card
- 4 GB RAM
- 200 GB available hard disk space
- 1600 x 1200 display.

Operating Systems

All validated Microsoft Windows client operating systems can be used.

1.6.3 eCognition Server

eCognition Server is a scalable grid computing infrastructure that may be installed on one or more machines in your network.

Each machine hosting components of the eCognition Server is called a node. A eCognition Server setup consists of a primary node and one or more processing nodes. While the primary node controls the operation of the eCognition Server, the processing nodes perform the image analysis tasks.

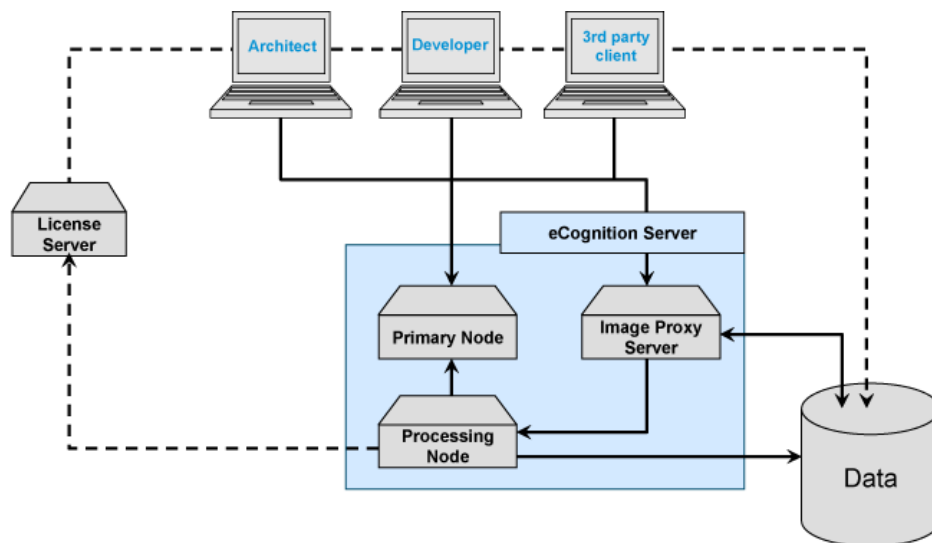


Figure 1.3. Trimble client-server setup

Administration Console

The Administration Console provides system administrators with a web-based interface that simplifies the management of the eCognition Server environment. It is installed as a central part of the eCognition Server and can be accessed by any machine in the network connected to the server and using a standard web browser.

Primary Nodes

The primary node hosts the infrastructure components required to operate the eCognition Server:

- Administration Server: Application server of the Administration Console
- Deployment Server: Manages and distributes image analysis software packages
- Job Scheduler: Manages and distributes active user jobs for processing nodes
- Spooler Service: Retrieves analysis results from processing nodes and stores them in a relational database (part of the Data Management)

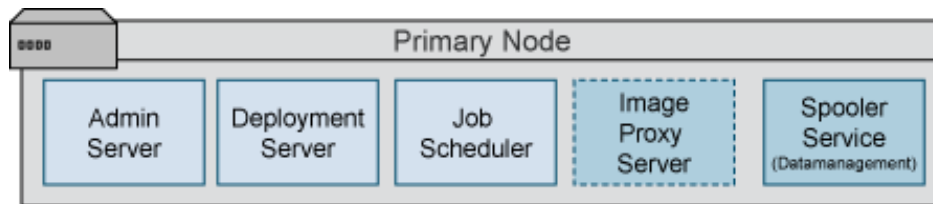


Figure 1.4. Components on the primary node of the eCognition Server

Processing Nodes

The processing nodes host the processing components required to perform the image analysis service:

- The Configuration Service configures the Analysis Engine according to the requirements of the image analysis tasks. Downloads new packages from the deployment server if required
- The Analysis Engine performs the image analysis tasks.

If you use multi-processor or multi-core machines, you can set up processing nodes with more than one analysis engine. Each analysis engine should then have a dedicated CPU core and one eCognition Server CPU license is needed per analysis engine. It is also possible to install analysis engines on the primary node and use it as a processing node. In this case, the deployment server also acts as the configuration service for this machine.

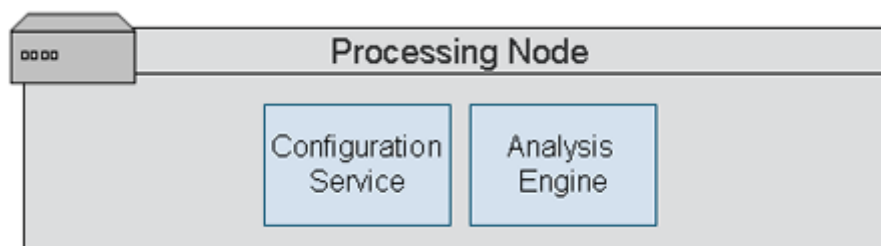


Figure 1.5. Components on a processing node of the eCognition Server

Control Service The Control Service is a small component that runs on each node of the eCognition Server. It starts and monitors the other Trimble components of the respective node.

Interprocess Communication The communication protocol for the components of the eCognition Developer 8.64.0 software suite is SOAP-based. All ports used by the system must be available and properly configured with respect to virus scanners and firewalls:

- Administration Console – 4002
- JobScheduler – 8184
- Configuration Service – 8284
- License Server ‘ COM port 1= 2700 and return COM port 2, allocated at random.

Please see the Installation Guide for additional detailed information on firewall setup.

Image File Access To process images each eCognition Server node requires access to image data files. This access can be either direct access using network shares or using the Image Proxy Server. It is recommended that the Proxy Server be installed as performance and reliability of image access is improved.

System Requirements for Primary Nodes

The following requirements apply to a primary node that is only operating the infrastructure components of the eCognition Server.

Hardware Requirements

- Intel Pentium 4 (2.66 GHz, 800 FSB) or compatible
- 2 GB RAM
- 10 GB available hard disk space
- 1024 x 768 display
- 100 MB Ethernet network connection (1 GB recommended)

Operating Systems

- All validated Microsoft Windows² operating systems
- All validated Linux operating systems

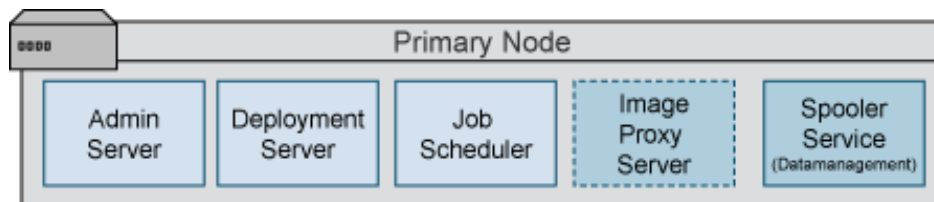


Figure 1.6. Components on the primary node of the eCognition Server

2. For Microsoft Windows we recommend using a server operating system.

System Requirements for Single Core Processing Nodes

Hardware Requirements

- Intel Pentium 4 (3 GHz, 800 FSB) or compatible
- 2 GB RAM³
- 10 GB available hard disk space
- 1024 x 768 display
- 100 MB Ethernet network connection (1 GB recommended)

Operating Systems

- All validated Windows operating systems
- All validated Linux operating systems

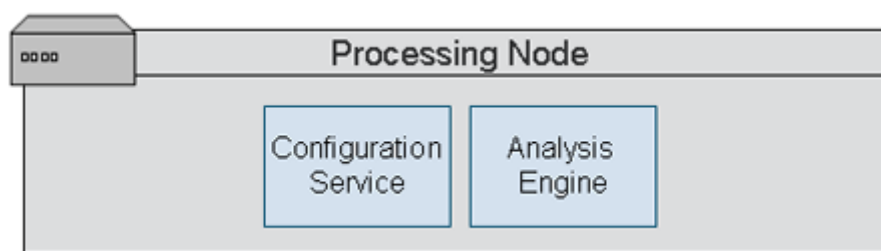


Figure 1.7. Components on a processing node of the eCognition Server

System Requirements for Multi-Core Processing Nodes

For multi-core/multi-processor machines, the system requirements depend on the number of CPU cores used. Since multi-core machines need to manage large amounts of RAM (usually >4 GB), it is necessary to have 64-bit hardware and operating systems. All image analysis processes of the eCognition Server use temporary files for memory management. For this reason, an efficient and concurrent hard disk access for each CPU core must be ensured.

Basic Hardware Requirements Per Machine

- Intel Xenon-based multi-core CPU (2.66 GHz, 1033 FSB) or compatible
- 2 GB RAM
- 10 GB available hard disk space
- 1 GB Ethernet network connection
- Fast hard disk or multiple drives to allow efficient and concurrent file access for all cores

Additional Hardware Requirements Per CPU Core

3. Users of the 64-bit edition may choose to configure additional memory to handle large data image processing tasks.

- 2 GB RAM⁴
- 15 GB available hard disk space
- 2 MB L2 cache (recommended)

Operating Systems

- All validated Microsoft Windows operating systems
- All validated Linux operating systems

Recommended Hardware Settings for a Machine with Four CPU Cores

- Dual-processor motherboard with two dual-core Intel Xenon-based CPUs (3.4 GHz, 1033 FSB) or quad-core Intel Xenon-based CPU (3.4 GHz, 1033 FSB) or compatible
- 12 GB RAM⁵
- 80 GB available hard disk space
- 1 GB Ethernet network connection

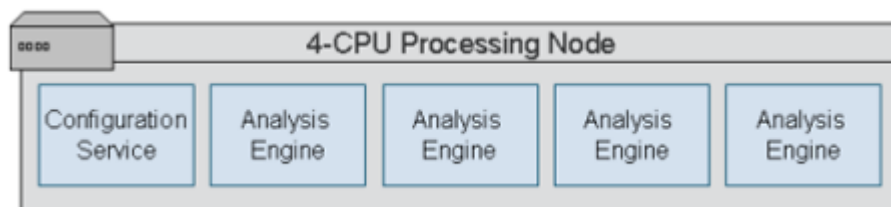


Figure 1.8. Multi-core processing node for eCognition Server with four CPUs

System Requirements for the Administration Console

The system requirements for the Administration Console are defined by your preferred web browser. While the console should work with most standard web browsers, it has been validated for the following:

- Microsoft Internet Explorer 6.0.x (SP2)
- Microsoft Internet Explorer 7.0.x (SP2)
- Mozilla Firefox 2.0.0.1
- Mozilla Firefox 3.0.3

1.6.4 Image Proxy Server

The Image Proxy Server (IPS) software provides high-performance image access and image caching services. IPS software is installed by default with each client and is also installed as a server to support image access from processing nodes and centralized cache services to clients..

4. Users of the 64-bit edition may choose to configure additional memory to handle large data image processing tasks.
5. Users of the 64-bit edition may choose to configure additional memory to handle large data image processing tasks.

Server Deployment

The Image Proxy Server is responsible for both serving image data but also creating necessary cache data to provide high-performance access.

Cache Processing The IPS can use the facilities of the existing eCognition Server processing nodes to offload the cache creation processing, which reduces the processing load on the image server. On Linux, this offloading of processing to the eCognition Server is dependent on having all the image drivers you wish to use available natively on Linux. Please see the Supported Connectors and Drivers documentation for details of which drivers are available for which operating system.

Storage Architecture The choice of storage architecture for image cache data also affects the amount of disk space required for the Image Proxy Server. The default option is to use decentralized storage.

- Decentralized cache data is stored along side the original image data
- Centralized cache data is stored in a centralized location

The hardware requirements⁶ for an Image Proxy Server are shown in [table 1.1](#) on the current page, *Hardware Requirements for an Image Proxy Server*. Additional disk space will be required to be available together with the source image data (minimum 500 GB).

Table 1.1. Hardware Requirements for an Image Proxy Server

	Configuration	Minimum	Recommended
CPU	Cache Processing using the eCognition Server	Single Core	Dual Core
	Cache Processing using Local File Processes	Dual Core	Quad Core
RAM	Any	2 GB	4 GB
	Centralized	500 GB	500 GB + scalable NAS/SAN

Operating Systems All validated Microsoft Windows operating systems

1.6.5 License Server

The License Server software provides software licenses to all Trimble products. It can be installed on any machine that is reliably available within the network domain that is used to operate the Trimble software.

6. For smaller Windows environments it would be possible to install the Image Proxy Server on the Primary Node. In this circumstance it would be recommended to add additional processing capacity to the Primary Node in line with [table 1.1](#) on this page, *Hardware Requirements for an Image Proxy Server*.

Minimum Hardware Requirements

- Intel Pentium 3 or compatible
- 512 MB RAM
- VGA display

Operating Systems

- All validated Microsoft Windows operating systems
- All validated Linux operating systems

2 System Requirements For Typical Setups

2.1 Standalone Desktop Environment

This example describes a typical standalone desktop environment setup including the following components:

- **eCognition Developer 8.64.0** or **eCognition Architect 8.64.0**. This software is used to run Trimble applications and custom solutions. The eCognition Developer software allows you to efficiently build new image analysis solutions.
- **eCognition Server** (one CPU license needed). The eCognition Server software represents the processing environment and provides services for batch processing.
- **License Server**. The License Server software provides licenses for other Trimble software.

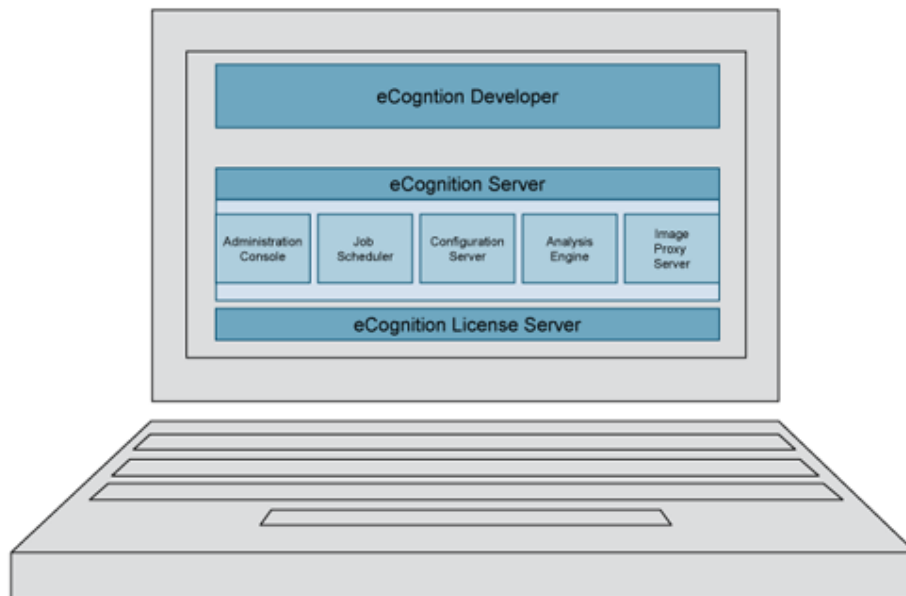


Figure 2.1. Setup for a stand-alone desktop environment

2.1.1 Minimum Hardware Requirements

- Intel Pentium 4 / Intel Dual Core or compatible
- Recent OpenGL 1.1+ graphics card with at least 64 MB memory
- 2 GB RAM
- 50 GB available hard disk space
- 1280×1024 display resolution

2.1.2 Recommended Hardware Settings

- Intel Dual Core or compatible
- Recent OpenGL 1.1+ graphics card with at least 64 MB memory
- 4 GB RAM¹
- 20 GB available hard disk space
- 1600×1200 display resolution

2.1.3 Operating Systems

All validated *Windows client* (p 3) operating systems.

2.1.4 Validated Web Browsers

- Microsoft Internet Explorer 6.0.x (SP2)
- Microsoft Internet Explorer 7.0.x (SP2)
- Mozilla Firefox 2.0.0.1

2.2 Small Development Site

These example setups describe an environment including two workstations and a 4-CPU server.

2.2.1 eCognition Server (Windows)

For a small development environment it is possible to install the Image Proxy Server on the same machine.

Clients

Recommended Hardware Settings

- Intel Dual Core or compatible
- Recent OpenGL 1.1+ graphics card with at least 64 MB memory
- 4 GB RAM²

1. Users of the 64-bit edition may choose to configure additional memory to handle large data image processing tasks.
2. Users of the 64-bit edition may choose to configure additional memory to handle large data image processing tasks.

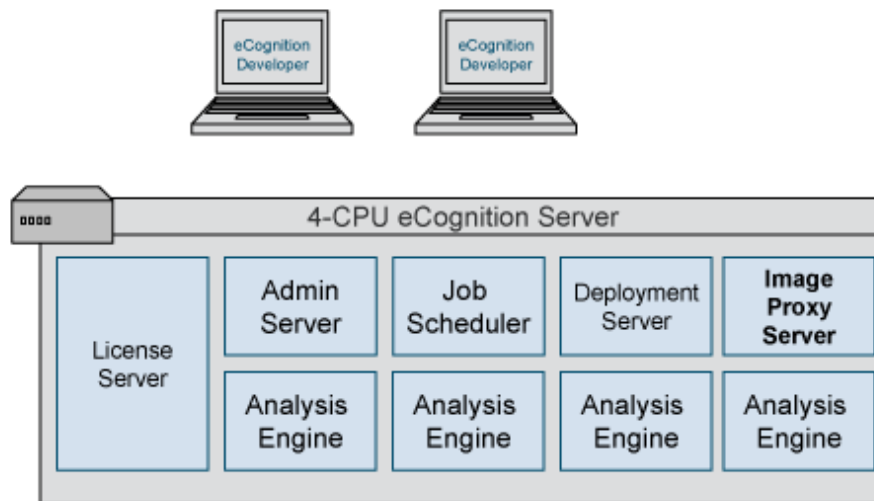


Figure 2.2. Setup for a small development team

- 20 GB available hard disk space
- 1600×1200 display resolution

Operating Systems All validated *Windows client* (p 3) operating systems.

Server

Recommended Hardware Settings

- Intel Xenon-based dual-core CPU / Intel Xenon-based quad-core CPU (3.4 GHz, 1033 FSB) or compatible
- 12 GB RAM³
- 120 GB available hard disk space

Operating Systems

- All validated 64-bit *Windows Server* (p 4) operating systems.
- All validated 64-bit *Linux* (p 4) operating systems

2.2.2 eCognition Server (Linux)

When using the eCognition Linux Server, access to all supported image formats requires the use of a separate Image Proxy Server.

3. Users of the 64-bit edition may choose to configure additional memory to handle large data image processing tasks.

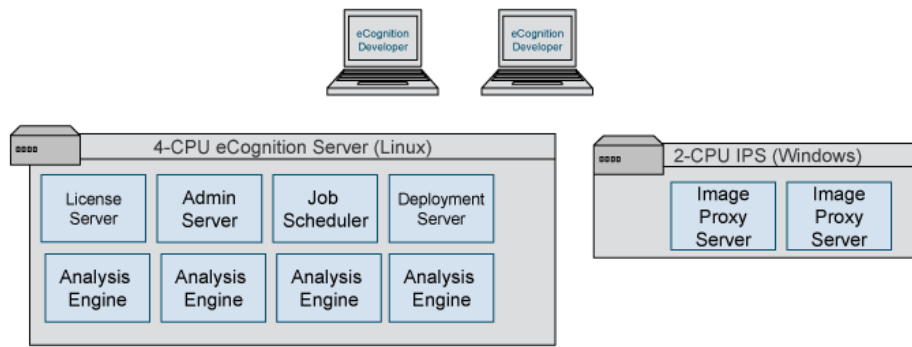


Figure 2.3. Setup for a small development team (Linux Server and Windows Image Proxy Server)

Clients

Recommended Hardware Settings

- Intel Dual Core or compatible
- Recent OpenGL 1.1+ graphics card with at least 64 MB memory
- 4 GB RAM⁴
- 50 GB available hard disk space
- 1600×1200 display resolution

Operating Systems All validated *Windows client* (p 3) operating systems.

Server

Recommended Hardware Settings

- Intel Xenon-based dual-core CPU / Intel Xenon-based quad-core CPU (3.4 GHz, 1033 FSB) or compatible
- 12 GB RAM⁵
- 120 GB available hard disk space

Operating Systems

- All validated 64-bit Windows server operating systems
- All validated 64-bit Linux operating systems

Image Proxy Server

Recommended Hardware Settings

4. Users of the 64-bit edition may choose to configure additional memory to handle large data image processing tasks.
5. Users of the 64-bit edition may choose to configure additional memory to handle large data image processing tasks.

- Intel based dual-core (3.4 GHz, 1033 FSB) or compatible
- 4 GB RAM
- 500 GB available hard disk space (centralized) or 0 GB (decentralized)

Operating Systems All validated *Windows Server* (p 4) operating systems.

2.3 Medium Size Production Site

This example setup describes an environment including two eCognition Developer workstations, four eCognition Architect 8.64.0 workstations and a eCognition Server (12 CPU licenses).

2.3.1 Windows

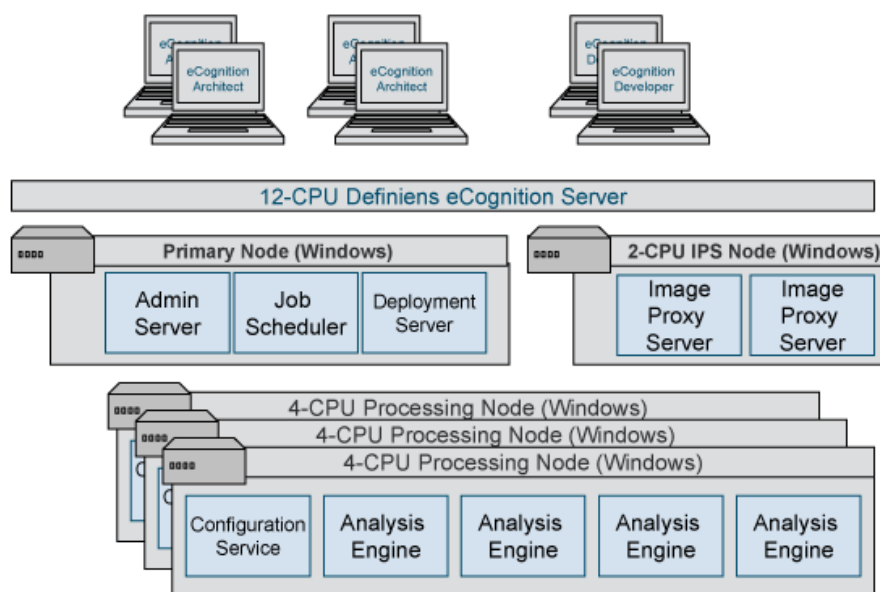


Figure 2.4. Setup for a medium-sized production site

Clients

Recommended Hardware Settings

- Intel Dual Core or compatible
- A recent OpenGL 1.1+ graphics card with at least 64 MB memory
- 4 GB RAM⁶
- 50 GB available hard disk space

6. Users of the 64-bit edition may choose to configure additional memory to handle large data image processing tasks.

- 1600×1200 display resolution

Operating Systems All validated *Windows client* (p 3) operating systems.

Server

Recommended Hardware Settings

- Intel Xenon-based dual-core CPU / Intel Xenon-based quad-core CPU (3.4 GHz, 1033 FSB) or compatible
- 12 GB RAM⁷
- 120 GB available hard disk space

Operating Systems All validated 64-bit *Windows Server* (p 4) operating systems.

Image Proxy Server

Recommended Hardware Settings

- Intel based dual-core (3.4 GHz, 1033 FSB) or compatible
- 4 GB RAM
- 500 GB available hard disk space (centralized) or 20GB (decentralized)

Operating Systems All validated *Windows Server* (p 4) operating systems.

2.3.2 eCognition Linux Server and Windows Image Proxy Server

Clients

Recommended Hardware Settings

- Intel Dual Core or compatible
- Recent OpenGL 1.1+ graphics card with at least 64 MB memory
- 4 GB RAM
- 50 GB available hard disk space
- 1600×1200 display resolution

Operating Systems All validated *Windows client* (p 3) operating systems.

7. Users of the 64-bit edition may choose to configure additional memory to handle large data image processing tasks.

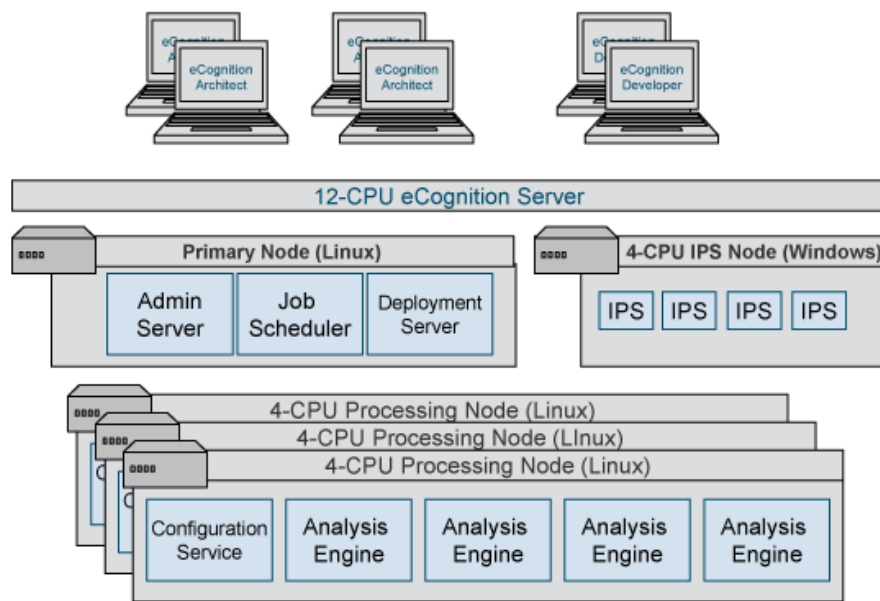


Figure 2.5. Setup for a small development team (Linux Server and Windows Image Proxy Server)

Server

Recommended Hardware Settings

- Intel Xenon-based dual-core CPU / Intel Xenon-based quad-core CPU (3.4 GHz, 1033 FSB) or compatible
- 12 GB RAM ** Users of 64bit edition may choose to configure additional memory to handle large image processing tasks.
- 120 GB available hard disk space

Operating Systems All validated 64-bit *Windows Server* (p 4) operating systems.

Image Proxy Server

Recommended Hardware Settings

- Intel based quad-core (3.4 GHz, 1033 FSB) or compatible
- 8 GB RAM
- 500 GB available hard disk space (centralized) or 20 GB (decentralized)

Operating Systems All validated *Windows Server* (p 4) operating systems.

2.4 Large Production Site

This example setup describes an environment including four eCognition Developer 8.64.0, twelve eCognition Architect 8.64.0 workstations, a 40-CPU server cluster and a Quad Core Image Proxy Server.

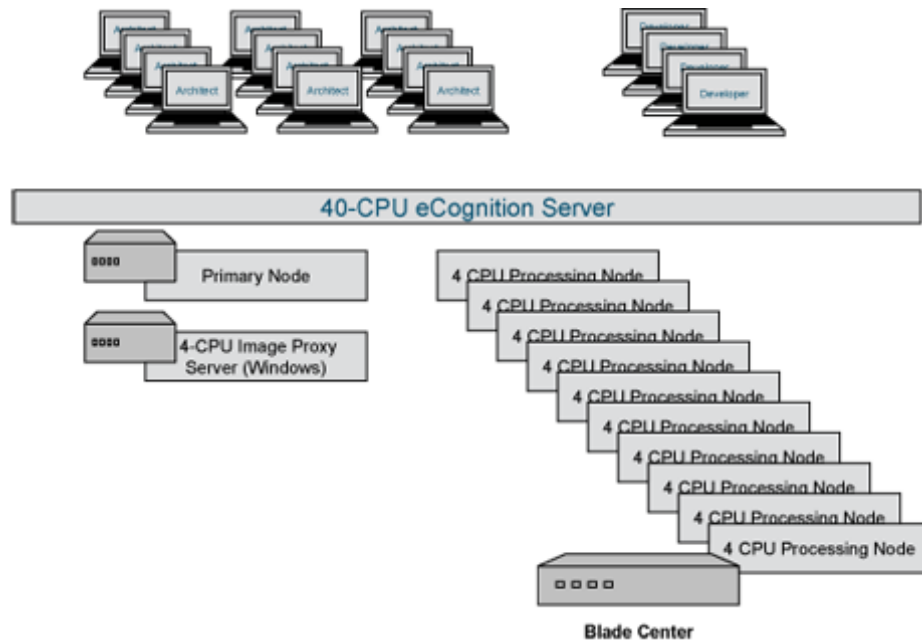


Figure 2.6. Setup for a large production site

2.4.1 Clients

Recommended Hardware Settings

- Intel Pentium 4 / Intel Dual Core or compatible
- Recent OpenGL 1.1+ graphics card with at least 64 MB memory
- 4 GB RAM
- 20 GB available hard disk space
- 1600×1200 display resolution

Operating Systems

All validated *Windows client* (p 3) operating systems.

2.4.2 Server

For a blade-based server system, each blade must meet the requirements described below.

Recommended Hardware Settings

- Intel Xenon-based dual-core CPU / Intel Xenon-based quad-core CPU (3.4 GHz, 1033 FSB) or compatible
- 12 GB RAM⁸
- 120 GB available hard disk space

Operating Systems

- All validated 64-bit *Windows Server* (p 4) operating systems
- All validated *Linux server* (p 4) operating systems.

2.4.3 Image Proxy Server**Recommended Hardware Settings**

- Intel based quad-core (3.4 GHz, 1033 FSB) or compatible
- 8 GB RAM
- 500 GB available hard disk space (centralized) or 20GB (decentralized)

Operating Systems

All validated *Windows Server* (p 4) operating systems.

8. Users of the 64-bit edition may choose to configure additional memory to handle large data image processing tasks.

3 Detailed System Requirements for Linux Systems

3.1 Kernel Version

eCognition Server supports Intel Platform Kernel versions 2.4 and 2.6.

3.2 Runtime Dependencies

eCognition Server has the following runtime dependencies. Make sure that your distribution provides corresponding core libraries and updates:

- unixODBC (libodbc.so.1)
- libstdc++.so.5
- libc.so.6
- libgcc_s.so.1
- libm.so.6
- libdl.so.2
- libltdl.so.3
- libpthread.so.0
- libuuid.so.1
- libz.so.1
- libexpat.so.0

3.3 Perl

For Perl installation, the following requirements should be met:

- Perl should be installed in the /usr/bin/perl directory.
- The Perl XML simple module should be installed.

3.4 Red Hat

Make sure to use the AutoUpdates version 5 or later. To check this, enter `cat /etc/redhat-release`. The content of the file displayed is, for example, Red Hat Enterprise Linux ES release 4 (Nahant Update 5).

4 Example Packages That Meet Runtime Requirements

The following packages can be utilized to configure the required runtime dependencies for the supported Linux operating systems.

4.1 32-bit systems

4.1.1 Red Hat Enterprise Linux ES release 4 (Nahant Update 6)

No additional packages necessary.

4.1.2 Red Hat Enterprise Linux Server release 5.5 (Tikanga)

- compat-readline43-4.3-2.i386.rpm
- perl-XML-Parser-2.36-1.el5.rf.i386.rpm
- unixODBC-2.2.12-6.el4s1.1.i386.rpm

4.1.3 SuSE Linux Enterprise Server 9 (i586), Version = 9, Patchlevel = 4

- libgcc41-4.1.2_20061115-5.i586.rpm
- libstdc++41-4.1.2_20061115-5.i586.rpm

4.1.4 SuSE Linux Enterprise Server 10 (i586), Version = 10, Patchlevel = 2

- compat-expat1-1.95.8-6.i586.rpm

4.1.5 SuSE Linux Enterprise Server 11 (i586), Version = 11, Patchlevel = 1

- compat-expat1-1.95.8-6.i586.rpm
- unixODBC-2.2.12-199.4.i586.rpm

4.2 64-bit systems

4.2.1 Red Hat Enterprise Linux ES release 4 (Nahant Update 8)

- e2fsprogs-1.35-12.24.el4.i386.rpm
- expat-1.95.7-4.el4_8.2.i386.rpm
- libstdc++3.4.6-11.el4_8.1.i386.rpm
- ncurses-5.4-15.el4.i386.rpm
- readline-4.3-13.i386.rpm
- unixODBC-2.2.12-6.el4s1.1.i386.rpm
- unixODBC-2.2.12-6.el4s1.1.x86_64.rpm

4.2.2 Red Hat Enterprise Linux Server release 5.5 (Tikanga)

- perl-XML-Parser-2.36-1.el5.rf.x86_64.rpm

4.2.3 SuSE Linux Enterprise Server 9 (x86_64), Version = 9

- libgcc-41-4.1.2_20070115-0.4.x86_64.rpm
- libgcc-41-32bit-4.1.2_20070115-0.4.x86_64.rpm
- libstdc++41-4.1.2_20061115-5.x86_64.rpm
- libstdc++41-32bit-4.1.2_20061115-5.x86_64.rpm
- unixODBC-2.2.12-13.x86_64.rpm
- unixODBC-32bit-2.2.12-13.x86_64.rpm

4.2.4 SuSE Linux Enterprise Server 10 (x86_64), Version = 10, Patchlevel = 3

- compat-expat1-1.95.8-6.i586.rpm
- compat-expat1-1.95.8-26.x86_64.rpm
- unixODBC-2.2.12-93.1.x86_64.rpm
- unixODBC-32bit-2.2.12-93.1.x86_64.rpm

4.2.5 SuSE Linux Enterprise Server 11 (x86_64), Version = 11, Patchlevel = 1

- compat-expat1-1.95.8-6.i586.rpm
- compat-expat1-1.95.8-26.x86_64.rpm
- unixODBC-32bit-2.2.12-199.4.x86_64.rpm

Acknowledgments

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