

# Hardware and Software Requirements 3.0.0

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## General

This document lists the hardware and software requirements for the ProTime Premium software family from version 3.0.0 onward. If you have any questions regarding the requirements specified in this document, you can contact the Protime IT-Department via e-mail: [it@protime.be](mailto:it@protime.be)

## Hardware requirements

For the monitors that are going to be used with the ProTime Premium software family a minimum resolution of 1024 x 768 is required. Lower resolutions cause problems in combination with some of the ProTime Premium modules. For the ProTeam Planning module we recommend a resolution of 1280 x 1024 for improved user experience.

Specifying hardware requirements for the ProTime Premium servers is not possible without having an insight in the specific customer situation. Normally a site survey will be necessary to gather the relevant information. Therefore the hardware requirements for the various possible server configurations are demonstrated by means of examples based on customer profiles. These profiles are defined based on the sizing criteria as described in the next paragraph.

### Sizing criteria

The sizing of the servers is amongst others based on the following criteria:

- Number of employees to be administered by the Premium software;
- Number of concurrent users logged on to the Premium software, where a user of the ProTeam module is calculated as 1.25 users;

Load aspects of the various Premium Modules:

Module	Load aspects to be considered
<i>ProTime</i>	No special load aspects to be considered.
<i>ProTeam</i>	The time needed to start the ProTeam module is for an important part determined by the number of employees that is shown in the initial view.
<i>Polling</i> <sup>1</sup>	<p>The load generated by the polling modules is determined by:</p> <ul style="list-style-type: none"> <li>▪ total number of terminals to be managed by the polling module;</li> <li>▪ number of employees stored in the terminals;</li> <li>▪ amount of information sent to the terminals;</li> <li>▪ are the terminals used <u>online</u> or <u>offline</u>. For offline terminals the frequency with which the information is sent to the terminals is an important performance factor.</li> <li>▪ Clocking behaviour of the employees: <ul style="list-style-type: none"> <li>▪ Are there many clockings to be expected at certain peak hours (start and end of shift) or are they equally spread over the day.</li> <li>▪ Are there any access control terminals causing many clockings due to heavy usage.</li> </ul> </li> </ul>
<i>ProNetEE</i>	<p>The load caused by ProNetEE is for an important part determined by the ProNetEE modules that are used:</p> <ul style="list-style-type: none"> <li>▪ <b>Virtual terminal</b> used by the employee for clocking IN and OUT and other clockings. When ProNetEE is used as a virtual terminal, the generated load can be compared with</li> </ul>

Module	Load aspects to be considered
	<p>that of an online terminal. The number of counters that is displayed on the ProNetEE home-page is an important load factor.</p> <ul style="list-style-type: none"> <li>▪ <b>Requests module</b> used for submitting and managing various types of requests. Using this module has no special impact on the generated load.</li> <li>▪ <b>Self-service (corrections)</b>. This module can be compared with the Request module and has no special impact on the generated load.</li> </ul>
<i>WebPIP</i>	No special load aspects to be considered.

<sup>1</sup> For the purpose of server sizing, the load caused by the module **ProSynergy** is equated to the load caused by a Polling module.

## Examples of configurations

### Example 1

Definition of the environment	
<b>Number of employees</b>	200
<b>Number of ProTime users</b>	4
<b>Number of ProAccess users</b>	4
<b>Polling</b>	Isgus, Offline, Polling cycle once every hour.
<b>Database Management System</b>	MSDE
Recommended configuration	
<b>Processor</b>	Pentium 4
<b>Memory</b>	1 GB

More examples will be supplied as soon as possible!

## Recommended configuration for Citrix / Microsoft® Terminal Server

Component	Recommended configuration
Processor	<p>Pentium 4 2 GHz – 2 CPU's</p> <ul style="list-style-type: none"> <li>▪ Windows™ 2000 Server for maximum 50 users;</li> <li>▪ Windows™ 2003 Server for maximum 50 users.</li> </ul> <p>It is recommended to use 2 servers with 2 CPU's each to spread the load and for redundancy reasons.</p>
Memory	<p>Per user 30 MB of memory must be available.</p> <p>When there are other applications running on the same server, the memory usage of these applications must also be taken into account.</p>
Communication band width	<p><b>Connection with the clients <sup>1</sup>:</b></p> <ul style="list-style-type: none"> <li>▪ Number of users ≤ 5: 25 KB for the first user and 15 KB for each additional user;</li> <li>▪ Number of users ≤ 20: 19 KB for the first user and 10 KB for each additional user;</li> </ul>



	<ul style="list-style-type: none"> <li>▪ Number of users <math>\geq 20</math>: 15 KB for the first user and 8 KB for each additional user.</li> </ul> <p><b>Connection with the database server:</b></p> <ul style="list-style-type: none"> <li>▪ 100 Mb fast Ethernet.</li> </ul>
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<sup>1</sup> These values are only valid in combination with Citrix. The requirements are higher when Microsoft™ Terminal Server is used without Citrix.

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## Software Requirements

This chapter defines the software versions of the database management systems and operating systems that are supported by the ProTime Premium Software Family. This information is based on ProTime Premium version 3.0.0 and will be updated when needed.

The ProTime Premium software family consists of two types of software components:

Components based on Visual Basic 6 (VB6)	Components based on .NET 2.0
<ul style="list-style-type: none"> <li>ProTime</li> <li>Polling modules</li> <li>User Administration Tool</li> <li>Polling Administration Tool</li> <li>Export module</li> <li>Import module</li> <li>LogManager</li> </ul>	<ul style="list-style-type: none"> <li>ProTeam</li> <li>ProSynergy</li> <li>ProSynergy Administration Console</li> <li>ProEvent Service</li> <li>ProNetEE</li> </ul>

The installation and configuration of the following (system) software components is the responsibility of the customer:

- Operating System;
- Database Management System;
- Service packs, Security packs and Hot fixes for the Operating System and the Database Management System;
- Microsoft® Internet Explorer;
- Microsoft® Internet Information Services (IIS);
- Microsoft® .Net framework 2.0;
- Microsoft® Windows® Management Instrumentation (WMI)
- Microsoft® MSMQ.

For the .NET 2.0 system requirements you must refer to the Microsoft Corporation website:

<http://www.microsoft.com/downloads/details.aspx?familyid=0856EACB-4362-4B0D-8EDD-AB15C5E04F5&displaylang=en#Requirements>

### NOTE!

Until further notice, it is not recommended to install ProTime Premium Server .NET components on the Server hosting the Active Directory (e.g. Windows™ Small Business Server). This is due to the fact that in this case only domain security is supported. Active Directory can cause a heavy network load for making security checks and changing the Active Directory configuration can have other impacts.



## Database Management Systems

The following Database Management Systems are supported in combination with the ProTime Premium Software Family:

- Microsoft® SQL Server™ 2000
- Microsoft® SQL Server™ 2005
- Oracle™ Database 9i
- Oracle™ Database 10g

For the specification of the operating systems that are supported by the above mentioned database management systems you must refer to the vendor of the database management system:

- Microsoft Corporation for Microsoft® SQL Server™
- Oracle Corporation for Oracle™ Database

### NOTE!

When using an Oracle™ Database in a .NET environment – this includes the module ProSynergy – the following Oracle™ components must be installed:

- Oracle™ Data Provider for .NET version **9.2.0.4.01** supplied by Oracle Corporation; other versions of the Oracle™ Data Provider for .NET are **not** supported by ProTime Premium.
- Oracle™ 9i Client on the application server.

### NOTE!

As ISV Partner of Microsoft, Protime can make you an attractive proposal for upgrading your database management system to Microsoft® SQL Server™ 2005. Please contact your local representative.

## ProTime Premium Components and Operating Systems

The following table shows the supported operating systems for the various ProTime Premium components. It also indicates additional requirements for these components.

	Windows 2000 Professional SP4	Windows 2000 Server SP4	Windows XP Professional SP2	Vista	Windows 2003 Server SP1	Windows 2003 Server R2
<b>Premium Clients<sup>1</sup></b>	Supported	Supported	Supported	Under Evaluation	Supported	Supported
<b>ProTeam<sup>2</sup></b>	Supported	Supported	Supported	Under Evaluation	Supported	Supported
<b>ProSynergy DIB<sup>2</sup></b>	Not Supported	Supported	Supported <sup>3</sup>	Under Evaluation	Supported	Supported
<b>ProSynergy AIB<sup>2</sup></b>	Not Supported	Supported	Supported <sup>3</sup>	Under Evaluation	Supported	Supported
<b>ProSynergy Admin Console<sup>2</sup></b>	Supported	Supported	Supported	Under Evaluation	Supported	Supported
<b>ProNetEE Server<sup>2</sup></b>	Not Supported	Supported	Supported <sup>3</sup>	Under Evaluation	Supported	Supported
<b>ProNetEE Mobile Server<sup>2</sup></b>	Not Supported	Supported	Supported <sup>3</sup>	Under Evaluation	Supported	Supported
<b>Premium Application Server<sup>2,4,5</sup></b>	Not Supported	Supported	Supported <sup>3</sup>	Under Evaluation	Supported	Supported
<b>Smart Client Distribution Server</b>	Not Supported	Under Evaluation	Under Evaluation	Under Evaluation	Supported	Supported

**1** The Premium Client includes the following components:

- ProTime
- ProPlan
- ProCost
- ProAccess
- Import
- Export
- User Manager
- Polling

**2** Microsoft® .NET framework version 2.0 must be installed. To comply with this version of the .NET framework, you must install MDAC version 2.6 SP2 or higher. MDAC version 2.7 SP1 is recommended. IIS components to support ASP-pages must be installed.

**3** This operating system only supports a limited number of concurrent users. In special circumstances it can be used for smaller installations. If you use this operating system, higher number of concurrent users will cause performance problems. It is therefore not recommended to use this operating system for demonstration purposes only and not as server in production environments.

**4** MSMQ must be installed.

**5** The Premium Application Server includes the following components:

- CalcManager
- CalcServer
- NotifyServer
- InfoServer
- LogManager
- ProEvent Service
- Business Services
- Support Services

**NOTE!**

**Windows® NT4 and Windows® 98SE are no longer supported.**



## Client Components and Browser versions

Browser version	ProNetEE	ProNetEE Mobile <sup>2</sup>
Microsoft® Internet Explorer ≥ 5.5	Supported <sup>1</sup>	Supported
Microsoft® Internet Explorer ≥ 7.0	Under Evaluation	Supported
Browsers not listed	Not Supported <sup>3</sup>	Supported

<sup>1</sup> On Microsoft® Windows™ Operating Systems only!

<sup>2</sup> Due to the immense variation in combination of hardware (cell phones, pda's, ...) and operating systems it is not possible to guarantee the correct functioning in all cases. However, it should work on most WAP-enabled and / or HTML 1.1 compliant browsers.

<sup>3</sup> The customer can try to use browsers that are not listed here. However Protime does not guarantee the correct functioning of the software and will not spent any time on examining and solving problems that arise.

## Exchanging data with Microsoft® Office™

The exchange of data with Microsoft® Office™ Applications – in particular exporting data to **Excel** using the **Export module** – is only supported for Microsoft® Office™ 2000 and later.

## Application Integration

	Microsoft® Outlook	Lotus Notes
E-Mail and Calendar	Supported	Limited