

IS Human System Requirements

For its operation, the application **Human** requires the following:

- **installing the application** – programme files of the application installed mostly on an **application server**, optionally on a **workstation** (as long as the application is accessed by one user only);
- **database system** – either an independent computer (**database server**), optionally identical with **the application server**, or installed on **the workstation**;
- **clients of the application Human** – users' independent **workstations**, optionally a **terminal server**, as well as **the application server**, if automated tasks are run on it;

In the event of the system **eHuman** being used:

- **the server of the system eHuman** – is a **web server** installed on **the application server** of the system Human;
- **the clients of the system eHuman** – web clients of the system eHuman access the web server mostly from **workstations** by means of an internet browser, from mobile devices (telephone, tablet etc.), or, optionally, from the kiosk as part of the system called **24-hour personal assistant**.

Application server

The programme files of the application are installed onto **the application server**. Users usually access these files over the network from their **workstations**. The application server has to be able to provide the access to the programme files by means of sharing the files of the system Windows. If the application server for serving the application files is not a Windows operating system, it should provide access compatible with that system. This means that as long as there are non-ASCII characters in the path, and these are available using Windows server file sharing, the alternative system must be able to handle those files as well.

Additional requirements

As long as automated tasks of the application Human are run on the application server (e. g. importing the attendance transactions etc.), the application server has to meet the requirements specified for a **workstation**.

Database server

The database server contains the installed database system and application data. **Microsoft SQL Server 2008 (version 10.0)** or newer, at least in the **Express Edition (Standard Edition is recommended for more than 10 users)**. If the eHuman system is also used, Microsoft SQL Server 2008 R2 (version 10.50) or newer. The database must be in CI (case-insensitive) AS (accent-sensitive) collation mode.

Recommended database server configuration

| Number of users | CPU | RAM | HDD | Operation system |
|-----------------|-----------|------|-------|----------------------------------|
| 1 user | dual core | 2 GB | 5 GB | Windows 7 and later |
| up to 5 users | quad core | 4 GB | 20 GB | Windows Server 2008 R2 and later |
| up to 10 users | quad core | 4 GB | 20 GB | Windows Server 2008 R2 and later |
| over 10 users | quad core | 8 GB | 20 GB | Windows Server 2008 R2 and later |



Workstation

Workstations are computers on which their users (or Windows Scheduler) run and use the application. To do so, they use the file system of the **application server** and the database system of the **database server**.

Requirements for the application operation

| Requirement | Usage | Note |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A processor supporting the instruction set SSE2 | Application operation | |
| A monitor with a recommended resolution of 80 DPI - 140 DPI (with a dot size of 318 µm - 181 µm); running the application on a monitor with a resolution higher than 140 DPI (with a pixel size of less than 181 µm) is not natively supported. It is non-ergonomic and it is not recommended. | Application operation | |
| Link throughput between the workstation and application server must be at least 100 Mbit /s | Application operation | |
| Link throughput between the workstation and database server must be at least 100 Mbit /s | Application operation | |
| Operation system Windows 7 SP1, or later | Application operation | |
| Microsoft .NET Framework 4.6.1, or later, with CLR 4 | Application operation | |
| Universal C Runtime present in the operation system | Application operation | It is included in Windows Update. Optionally, it is possible to install as update kb2999226 or as part of Visual C++ Redistributable . |
| The operation system set in Slovak language, or another language compatible with the character set ANSI 1250 (Czech, Polish ...) | Application operation | |
| Microsoft Word / Excel 2007, or newer, in the case of Office 365, the functionality needs to be verified | Using selected functionalities with print outputs | Sufficient for a workstation which runs the print reports creation |
| Regular operation system update installations | Recommended for the correct functioning of the application | |
| Connectivity with the address https://servicedesk.hour.sk/ (recommended) | Using the client support services | |
| Internet browser: <ul style="list-style-type: none"> with JavaScript support switched on; in the case of the browser Internet Explorer with the compatibility mode switched off for the system eHuman pages | System eHuman operation | Provided the system eHuman is used |

Terminal server

The terminal server enables users of client computers to access and work with the application operated physically on the terminal server. When the terminal server is used, the same requirements as stipulated in the part **Workstation** apply to it.



In the case the terminal server is identical with the application server, it is advisable to increase the requirements for the application server RAM in 256 MB for each terminal account.

Web server

Web server serves the requirements of web clients of the system **eHuman**.

General requirements

- As the web server, Microsoft IIS on the operation system Windows Server 2008 R2, or later, is use
- The web server for the system **eHuman** is always identical with the computer which the application **Human** (**application server**) is installed on. This requirement results especially from the need to access the data saved in the file system of the application **Human** on the application server, as well as from the unified installation (Human and eHuman) by means of the system InstallShield.
- Microsoft .NET Framework 4.6.1, or later, using the version .NET CLR 4, needs to be installed on the web server.

Microsoft IIS

The supported versions of IIS are: 7.5, 8.0, 8.5, 10.0.

Further requirements:

- the component ASP.NET 4.6 installed;
- open HTTP / HTTPS port to connect web clients.

