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# User manual

ITKI-15-01-12-17-EN

# E2R SYSTEM REQUIREMENTS

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## **1. E2R INSTALLATION**

- E2R System Installer installs the following software components required by the E2R System:
  - Windows Installer 4.5 for Windows XP Service Pack 3, Windows Server 2003 Service Pack 1, Windows Server 2003 Service Pack 2, Windows Vista, Windows Vista Service Pack 1, and Windows Server 2008 X86.
  - SQL Server 2012 or SQL Server 2008R2
  - NET Framework 4
  - NET Framework 3.5 for SQL Server 2008R2
  - SQL Server Native Client
  - Files supporting SQL Server Installer operation
- It is required to install E2R on a real machine. We do not recommend installing E2R on a virtual machine, however from a technical perspective, installation of E2R on a virtual machine is possible.
- Installation carried out on an unrestricted administrator account.
- It is recommended to set 'Never notify' setting for UAC (User Account Control Settings window).
- In the course of installation the Installer sets edition-related permissions for all users to the directory where E2R is installed; by default it is C:\Program Files (x86)\RADWAG\E2R\.
- If on your computer, software of other companies is installed, or if default settings of the OS are modified, there is no possibility to install E2R using installation media; in such a case remote support is required and E2R must be installed manually.

## **2. OPERATION SYSTEM**

- It is not recommended to install user programs on a computer, or set incorrect configuration of the OS, i.e. such configuration that blocks installation of either new software or E2R installer components.
- It is not recommended to install user programs that significantly reduce computer performance, and negatively influence both stability of application operation and change of system settings configuration.
- It is required to install the latest Service Pack prior installation.

## **3. MANUAL UPDATE OF E2R**

- It is required to install appropriate version of SQL Server Management Studio; appropriate means such one that corresponds to database engine.

#### **4. UNINTERRUPTIBLE POWER SUPPLY SYSTEMS**

- Equipment resistant to sudden power supply fails (server supported by UPS).

#### **5. ETHERNET NETWORK**

- Network standard: Fast Ethernet, 100Base-TX, IEEE 802.3u, or better,
- Shielded wiring standard: Cat .5e or better,
- Shielded equipment resistant to sudden potential surges on data lines,
- Networking equipment intended for an industrial network,
- Dedicated weighing network, separated from the working network,
- Static IP addresses of network scales,
- Static IP address of server,
- Unblocked ports and services on server firewall,
- Deactivated or appropriately configured hardware and network firewall (excluding the weighing network computer).

#### **6. REMOTE SUPPORT**

- In order to enable remote support service, it is necessary to run either TeamViewer 13 application (TeamViewer 14 and later versions are not operated) or Radwag Support PC software, which is to be downloaded from radwag.com website (Support / Remote Assistance tab),

#### **7. SQL SERVER 2012 / 2008R2**

- It is recommended to run SQL Server 2012 program on computers with NTFS files system. Installation of SQL Server 2012 program on computers with FAT32 files system is supported however not recommended; this is due to the fact that FAT32 files system is not as safe as NTFS files system.
- SQL Server Installer blocks installation on read-only, mapped and compressed drives.
- For more information regarding use of SQL Server 2012 tools in order to prepare upgrade for SQL Server 2012, read [Use Upgrade Advisor to Prepare for Upgrades](#).
- In order to guarantee correct installation of Visual Studio component, SQL Server program requires installation of update. SQL Server Installer searches for updates, if necessary it requires you to download and install the update before SQL Server program installation is completed. In case of E2R installer, the addition is installed automatically. To avoid pause in the course of installation of individually installed SQL Server program, it is possible to download and install the update prior running the SQL Server Installer (it is also

possible to install all updates of .NET Framework 3.5 Service Pack 1 available in Windows Update service):

- Installation of manually installed SQL Server 2012 program will not succeed if the Installer is run via terminal services client. Running SQL Server Installer via terminal services client is not supported.

## 8. DATABASE

The engine for installed database is MS SQL Express 2012 (concerns versions from Windows 7 to Windows 10), or MS SQL Express 2008R2 (Windows XP). On a new computer, the E2R database is always created on a system drive.

### **CAUTION! Limitations of free MS SQL Express 2012 version:**

Support of one multi-core processor,  
Up to **1 GB** of supported RAM,  
Up to **10 GB** for each database,

Examples of SQL database records sizes

|   |   |              |
|---|---|--------------|
| Product record                          | - | 0.8 - 2 KB   |
| Operators record                        | - | 0.2 - 0.5 KB |
| Weighing record in E2R WEIGHING RECORDS | - | 1.2 - 2.5 KB |
| Weighing record in E2R PGC              | - | 1.2 - 2.5 KB |
| Weighing record in E2R CHECKWEIGHER     | - | 0.2 - 0.5 KB |

- In case of advanced systems consisting of more than 10<sup>1</sup> weighing workstations, in order to obtain maximum performance it is recommended to install **commercial version of MS SQL** without limited performance.
- sa user (or any other) used in order to log via E2R program, must be granted with database owner permissions level.

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<sup>1 2</sup> In case of system based on dynamic scales offering record of single measurements, the requirements concern more than two weighing devices. In case of E2R WEIGHING RECORDS, the requirements concern more than five weighing devices.

## 9. REQUIREMENTS REGARDING PROCESSOR, MEMORY AND OS

### 9.1. Server (>10)

Correct operation of weighing system consisting of more than 10<sup>2</sup> weighing devices, requires **server** operating in one of the following systems:

- Windows 10;
- Windows 8.1;
- Windows 8;
- Windows 7 (Starter version excluded);

E2R operates also on **servers** with the following systems:

- Windows Server 2016;
- Windows Server 2008 Service Pack 2;
- Windows Server 2008 R2;

Hardware related recommendations:

- **quad-core** processor **3 GHz** or faster,
- operating memory **8 GB** or more,
- at least **50 GB**<sup>3</sup> of free space on a hard drive,
- monitor operating at a resolution of at least 1280x1024 pixels,
- DVD drive,
- a printer operating in Microsoft Windows system,
- default system font size (**96 dpi**)!

### 9.2. Server (<10) and a Client Computer

For correct operation of weighing system consisting of less than 10 weighing devices, the servers and computers in multi-PC version require computer with the following systems:

- Windows 10;
- Windows 8.1;
- Windows 8;
- Windows 7 (Starter version excluded); or with their upgraded versions.

Hardware related recommendations:

- **dual-core** processor **2 GHz** or faster,
- operating memory **3 GB** or more,
- at least **35 GB**<sup>4</sup> of free space on a hard drive,
- monitor operating at a resolution of at least 1280x1024 pixels,
- DVD drive,
- a printer operating in Microsoft Windows system,
- default system font size (**96 dpi**)!

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<sup>3</sup> Requirements valid when RDBackup is installed.

<sup>4</sup> Requirements valid when RDBackup is installed.

## 10. DEFAULT SETTINGS OF WINDOWS FIREWALL

Settings recommended for correct operation of E2R.

```
netsh firewall add allowedprogram program="C:\Program Files\Microsoft SQL
Server\MSSQL11.BAZARADWAG2012\MSSQL\Binn\sqlservr.exe"
name="SQL_SERWER2012" profile=current scope=ALL
netsh firewall add allowedprogram program="C:\Program Files\Microsoft SQL
Server\MSSQL11_50.BAZARADWAG2012\MSSQL\Binn\sqlservr.exe"
name="SQL_SERWER2012_2" profile=current scope=ALL
netsh firewall add allowedprogram program="C:\Program Files\Microsoft SQL
Server\110\Shared\sqlbrowser.exe" name="SQL_BROWSER2012"
profile=current scope=ALL
netsh firewall add allowedprogram program="C:\Program
Files\RADWAG\E2R\E2R MANAGER \SyncManager.exe"
name="RADWAG_MANAGER" profile=current scope=ALL
netsh firewall add allowedprogram program="C:\Program
Files\RADWAG\E2R\E2R SYNCHRONIZER\SynchServer.exe"
name="RADWAG_SYNCHRONIZER" profile=current scope=ALL
```

### Ports list:

```
netsh firewall set portopening TCP 1433 "SQL Server"
netsh firewall set portopening TCP 1434 "SQL Admin Connection"
netsh firewall set portopening TCP 4022 "SQL Service Broker"
netsh firewall set portopening TCP 135 "SQL Debugger/RPC"
netsh firewall set portopening TCP 2383 "Analysis Services"
netsh firewall set portopening TCP 2382 "SQL Browser"
netsh firewall set portopening TCP 80 "HTTP"
netsh firewall set portopening TCP 443 "SSL"
netsh firewall set portopening UDP 1434 "SQL Browser"
netsh firewall set portopening UDP 500 "IPsec"
netsh firewall set portopening UDP 4500 "IPsec2"
netsh firewall set multicastbroadcastresponse ENABLE
netsh advfirewall firewall add rule name="Radwag Server TCP IN" dir=in
protocol=tcp localport= 4001-4100 action=allow
netsh advfirewall firewall add rule name="Radwag Server TCP OUT" dir=out
protocol=tcp localport= 4001-4100 action=allow
netsh advfirewall firewall add rule name="Radwag Server UDP IN" dir=in
protocol=tcp localport= 4001-4100 action=allow
netsh advfirewall firewall add rule name="Radwag Server UDP OUT" dir=out
protocol=tcp localport= 4001-4100 action=allow"
netsh firewall set portopening UDP 6000 "Radwag Scale detect"
netsh firewall set portopening UDP 6006 "Radwag Scale detect"
netsh firewall set portopening UDP 6007 "Radwag Scale detect"
netsh firewall set multicastbroadcastresponse ENABLE
```

