## Document Information

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| Reference | USR-190013 |
| Title | DAS SQL Pre-requisites |
| Synopsis | DAS SQL Pre-requisites |
| Author | David Montgomery |
| Creation Date | 2019-Feb-13 |

## Revisions

| Rev | Date | Who | Notes |
|---|---|---|---|
| 001 | 2017-Apr-17 | Chris Marsden | Initial Document |
| 002 | 2018-Feb-28 | David Montgomery | Update content |
| 003 | 2019-Feb-13 | David Montgomery | Update to standard format and review / update content |
| 004 | 2019-May-20 | David Montgomery | Update .Net Pre-Requisites. Remove .Net 3.0 Update .Net 4 from 4.5.2 to 4.6.1 Update .Net 4.6.1 download link |
| 005 | 2019-Jun-17 | David Montgomery | Revised minimum server spec. for v2.5.0.0 |
| 006 | 2020-Jan-17 | David Montgomery | Make corrections (previously v2.5.0.0, should be 2.3.1.x) and revise content following release of 2.3.1.x Add .Net 4.6.2 download link |
| 007 | 2020-Oct-15 | David Montgomery | Add requirement of a physical (not virtual) workstation for the DAS-SQL Client if using USB fingerprint scanner / card programmer Add DAS-SQL Client download link for C++ 2019 Redistributables Correct typos |

# Contents

## DAS-SQL Server Minimum Specification

Microsoft Windows Server 2016 or above
Microsoft SQL Server 2016 Express or above (DASSQL-10 to DASSQL-50)
Microsoft SQL Server 2016 Standard or above (DASSQL-100 and above)
2 CPU cores
8 GB RAM (recommend 16GB+ for bigger installations / workloads)
250GB HDD (recommend SSD)
TLS 1.2 or higher

## DAS-SQL Client Minimum Specification

Microsoft Windows 7 SP1 or higher
64bit Desktop Operating System
4GB RAM
10GB hard disk space

If being used to capture fingerprint templates and/or read or program RFID cards, a physical workstation is a requirement for the DAS-SQL Client due to USB pass through limitations.

## DAS-SQL Server Pre-requisites

Please restart the computer at any stage you are prompted to do so.

| DAS-SQL | . NET 3.0 | . NET 4.5.2 | . NET 4.6.1 | .NET 4.6.2 | Supported SQL Versions |
|---|---|---|---|---|---|
| v.2.3.x.x | | | | ● | SQL Server 2016-SQL Server 2019 |
| v2.3.1.x | ● | | | ● | SQL Server 2016-SQL Server 2019 |
| v2.2.99.89 | ● | | ● | | SQL Server 2016-SQL Server 2019 |
| v2.2.99.88 | ● | ● | | | SQL Server 2012 R2-SQL Server 2019 |
| v2.2.99.87 | ● | | | | SQL Server 2012 R2-SQL Server 2019 |
| v2.2.99.86 | ● | | | | SQL Server 2012 R2-SQL Server 2019 |

## Download Links

Please note that while we always try to make sure these links are valid, they are external links managed by Microsoft and, as such, we cannot guarantee their continued validity.

### .NET 4.6.2

Download location https://www.microsoft.com/en-us/download/details.aspx?id=53344

### .NET 4.6.1

Download location https://www.microsoft.com/en-us/download/details.aspx?id=42642

Download and run each installer, which require no configuration during installation.

### SQL Server 2016 Express SP2

Download location https://www.microsoft.com/en-us/download/details.aspx?id=56840

### SQL Server 2019 Express

Download location https://go.microsoft.com/fwlink/?linkid=866658

# DAS-SQL Client Pre-requisites

Please restart the computer at any stage you are prompted to do so.

| DAS-SQL | . NET 3.0 | . NET 4.5.2 | . NET 4.6.1 | .NET 4.6.2 | MS VS C++ 2013 Redist x32 | MS VS C++ 2013 Redist x64 | MS VS C++ 2015 Redist x32 | MS VS C++ 2015 Redist x64 | MS VS C++ 2019 Redist x64 |
|---|---|---|---|---|---|---|---|---|---|
| v2.3.x.x | | | | ● | | | | | ● |
| v2.3.1.x | ● | | | ● | | | | ● | |
| v2.2.99.89 | ● | | ● | | ● | ● | ● | ● | |
| v2.2.99.88 | ● | ● | | | ● | ● | ● | ● | |
| v2.2.99.87 | ● | | | | ● | ● | ● | ● | |
| v2.2.99.86 | ● | | | | ● | ● | ● | ● | |

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## .NET 4.6.2

Download location https://www.microsoft.com/en-us/download/details.aspx?id=53344

## .NET 4.6.1

Download location https://www.microsoft.com/en-us/download/details.aspx?id=49982

Download and run each installer, which requires no configuration during installation.

## Microsoft Visual Studio 2013 C++ Redistributables

Download location https://www.microsoft.com/en-us/download/details.aspx?id=40784

Download and run the installer, which requires no configuration during installation.

**Please note that both the x86 and x64 versions of the C++ Redistributables are required.**

## Microsoft Visual Studio 2015/2017/2019 C++ Redistributables

Download location https://aka.ms/vs/16/release/VC_redist.x64.exe

Download and run the installer, which requires no configuration during installation.

# Post Installation of Pre-requisites

In order to ensure that the latest security patches and fixes are applied, run Windows Updates on the DAS-SQL server and any DAS-SQL Client PCs.

## DAS-SQL Client / Server Settings

The DAS-SQL Client communicates with the DAS-SQL Server Component over an IP Socket using Transport Layer Security (TLS) 1.2

The default TCP port used for the communication is 15082.

## DAS-Server Device Discovery Settings

The DAS-SQL Server Component is capable of using UDP broadcasts to auto-detect new devices during initial configuration.

Because UDP broadcasts only work on a single (local) network segment, the DAS-SQL Server Component can only auto detect devices that are on the same network segment as itself.

The UDP Broadcast uses ports 65532 thru 65535 as follows:

| Digitus Device Type | UDP Port |
|---|---|
| db Cabinet Sentry (Sentry) | 65532 |
| db Bus Controller (Bus) | 65533 |
| db Nexus (Nexus) | 65534 |
| db Zero-U (Zero-U) | 65534 |

## The Digitus Ethernet Utility

If the Digitus hardware is on a different network segment to the DAS-SQL Server, the Digitus "Ethernet Utility" must be used to program the IP settings of the device before adding it to DAS-SQL. You must specify how the Digitus hardware will obtain the following:

- IP address – can be static or DHCP assigned. Static is the recommended setting.
- Subnet Mask
- Default Gateway
- Listening Port (default TCP port 1001).

The Digitus "Ethernet Utility" can either be run from a PC/Laptop connected to the same network segment as the Digitus Hardware or from a PC/Laptop that is directly connected to the Digitus Hardware with a CAT5 crossover cable.

## DAS-Server to Digitus Hardware Communication Settings

All communication between the DAS-SQL Server Component and Digitus Hardware is done over IP Sockets using Transport Layer Security (TLS) 1.2

The default TCP ports used for communication are 1001 and 1002 (this is a debug port that is used in troubleshooting communication and device issues).

Note that your firewall must be configured to allow communication between the DAS-Server and Digitus IP addressable hardware on TCP Port 1001 (default) and 1002 (debug only).

# Digitus Bootloaders

All Digitus Hardware Devices are capable of being flash-upgraded via a boot-loading process.

The communication of the bootloader is done using both TCP and UDP protocols.

The bootloader operates directly between the DAS-SQL Client and the Digitus Device.

The default TCP port for the bootloader is 1001.

The default UDP port for the bootloader is 16388.