

# Hardware Requirements for BS&A .NET Applications

Questions? Call us at (855) 272-7638 and ask for the I.T. Team, or email [itsupport@bsasoftware.com](mailto:itsupport@bsasoftware.com).

The recommended requirements are subject to change.

## Personal Computer Specifications

### WORKSTATION

Recommended	Minimum
3.2 GHz Intel® Core™ i5 (or faster) Processor	2.8 GHz Intel® Core™ i3 Processor
8 GB RAM	4 GB RAM
80 GB free disk space	40 GB free disk space
Windows 10 (Professional or above)	Windows 8 (Professional 64-bit or 32-bit)

### TABLET PC (*Community Development Field Inspection .NET Application*)

[See Page 5 for tablet model recommendations](#)

Recommended	Minimum
Intel® Core™ i5 520 UM (or faster) Processor	2.8 GHz Intel® Core™ i3 Processor
8 GB RAM	4 GB RAM
80 GB free disk space*	40 GB free disk space*
Windows 10 (Professional or above)	Windows 8 (Professional 64-bit or 32-bit)**

\*Note: The amount of free disk space required is dependent upon the size of the database and the number of attachments required

\*\*Note: BS&A applications are NOT compatible with Windows RT or Windows 10 in S mode

## Server Specifications (defined as a computer running a Windows Server Operating System)

### DATABASE SERVER (*fewer than 15 users*)

Recommended	Minimum
1 Xeon E5 series Quad-Core 2.4 GHz Processor (or faster)	2 GHz Multi-Core Xeon Processor
16 GB RAM	8 GB RAM
6x SATA 7.5K RPM 1TB (3x RAID 1)	250 GB free disk space
Separate RAID for Operating System	Windows Server 2012 Standard (32-bit)
Windows Server 2019 (Essentials or above)	

### **DATABASE SERVER** (15 to 30 users)

#### **Recommended**

1 Xeon 2.3 GHz E5 Six-Core Processor (or faster)  
24 GB RAM  
4x SATA 7.5K RPM 1TB (2x RAID 1)  
2x 500GB Solid State Drive (SSD)  
*Separate RAID for Operating System*  
Windows Server 2019 (Essentials or above)

#### *Minimum*

Xeon 2 GHz Multi-Core Processor  
16 GB RAM  
500 GB free disk space  
Windows Server 2012 Standard (64-bit)

### **DATABASE SERVER** (30 to 50 users)

#### **Recommended**

(2) Xeon 2.5 GHz E5 Six-Core Processors (or faster)  
48 GB RAM (DDR3 1333 or faster)  
4x 10K RPM SAS 1TB Hard Disks (2x RAID 1)  
2x 500GB Solid State Drive (SSD)  
*Separate RAID for Operating System*  
Windows Server 2019 (Essentials or above)

#### *Minimum*

Xeon 2.8 GHz Quad-Core Processor  
24 GB RAM  
1 TB free disk space  
Windows Server 2012 Standard (64-bit)

### **DATABASE SERVER** (50 to 100 users)

#### **Recommended**

(2) Xeon 2.5 GHz E5 Eight-Core Processors (or faster)  
64 GB RAM (DDR3 1600 or faster)  
8x 15K RPM SAS 1TB Hard Disks (2x RAID 10)  
2x 500GB Solid State Drive (SSD)  
*Separate RAID for Operating System*  
Windows Server 2019 (Essentials or above)

#### *Minimum*

(2) Xeon 2.8 GHz Quad-Core Processors  
48 GB RAM  
1 TB free disk space  
Windows Server 2012 Standard (64-bit)

### **SERVER** (over 100 users)

**Please email our IT Team at [itsupport@bsasoftware.com](mailto:itsupport@bsasoftware.com)**

## Terminal Services/Citrix Environments

### Recommended Application Server Specifications

Dual Quad-Core Xeon Processor

4096 MB RAM plus an additional 1024 MB RAM per user, per application

500 GB free disk space

Windows Server 2019 (Essentials or above)

Limit of 50 total users

*Please see the help doc entitled "BS&A Software and Best Practices in Terminal Server/RDP Environments."*

[http://bsasoftware.com/references/whitepapers\\_helpdocs/tech/articles\\_whitepapers/white\\_terminallimits.pdf](http://bsasoftware.com/references/whitepapers_helpdocs/tech/articles_whitepapers/white_terminallimits.pdf)

*Please see the help doc entitled "BS&A Software and Remote Desktop Services 2016"*

[http://bsasoftware.com/references/whitepapers\\_helpdocs/tech/articles\\_whitepapers/remotedesktopservices2016.pdf](http://bsasoftware.com/references/whitepapers_helpdocs/tech/articles_whitepapers/remotedesktopservices2016.pdf)

## Virtual Servers

*Please see the help doc entitled "BS&A Software and Best Practices in Virtual Environments."*

[http://bsasoftware.com/references/whitepapers\\_helpdocs/tech/articles\\_whitepapers/White\\_vmSupport.pdf](http://bsasoftware.com/references/whitepapers_helpdocs/tech/articles_whitepapers/White_vmSupport.pdf)

## SQL Software Edition Recommendations

*Please see the help doc entitled "SQL Server Edition Recommendations & Resellers."*

[http://bsasoftware.com/references/whitepapers\\_helpdocs/tech/articles\\_whitepapers/sqlserver\\_recom\\_resell.pdf](http://bsasoftware.com/references/whitepapers_helpdocs/tech/articles_whitepapers/sqlserver_recom_resell.pdf)

## I.T. Recommendation

BS&A has worked with IT Right for network services and implementation since 1999. If you are in need of IT services, please visit their site:

<http://www.itright.com>

## Printer and Desktop Scanner Recommendations

### Printers

BS&A Software does not officially maintain a master list of all the different printers that work with our applications. A general rule of thumb would be that any printers that are compatible with Windows are also compatible with BS&A.

### Scanners

In order for a scanner to communicate directly with BS&A applications, a TWAIN-compatible driver needs to be used. This TWAIN driver allows us to connect directly to the scanner from within the applications. If your scanner is not TWAIN-compatible, the document will need to be scanned into an intermediary folder and then attached within the BS&A applications.

Our customers have had success with the following scanners:

- Epson GT-1500: <https://epson.com/For-Work/Scanners/Desktop-Document/Epson-WorkForce-GT-1500-Color-Document-Scanner/p/B11B190011>
- FUJITSU FI-7160: <http://www.fujitsu.com/us/products/computing/peripheral/scanners/fi/workgroup/fi7160/index.html>

*\*\*Note: When considering which scanner or printer to purchase, it is necessary to consider its intended use. Pick a device that has the speed, capacity, paper size, and duty cycle that its job requires.*

### Receipt Printer Recommendations

BS&A Software has tested and confirmed the compatibility of the following Epson receipt printer models:

- Epson TM-H6000V Model: M253B
- Epson TM-H6000IV Model: M253A
- Epson TM-H6000III Model: M147G
- Epson TM-H6000III Model: M147H

BS&A has only tested and confirmed the above printers work with our .NET products. If you are considering purchasing a model other than the recommended one, we cannot guarantee its success with our applications. We will, however, make our best effort to assist you. Please visit the following link for more information:

[http://www.bsasoftware.com/References/WhitePapers\\_HelpDocs/Tech/Help\\_Docs/rctprntrec.pdf](http://www.bsasoftware.com/References/WhitePapers_HelpDocs/Tech/Help_Docs/rctprntrec.pdf)

*\*\*\*Note: Ithaca Series 90/150 printers are compatible with Windows XP, but **will not work** on Windows Vista or newer.*

## Tablet Recommendations

Below are a few of the most commonly utilized tablets for Field Inspection .NET. These have been verified to be compatible with FI and are widely used by our municipalities.

1. XSlate L10
  - a. <https://www.xploretech.com/us/xslate-l10-rugged-tablet-pc/>
2. Panasonic Toughbook
  - a. <http://business.panasonic.com/toughbook/laptop-computers.html>
3. Lenovo ThinkPads
  - a. <https://www.lenovo.com/us/en/laptops/thinkpad/thinkpad-t-series/c/thinkpadt>
4. Microsoft Surface Pro
  - a. <https://www.microsoft.com/en-us/store/b/surface>

The XSlate and Toughbook tablets are more rugged than the ThinkPads and Surface Pros. However, more and more users have begun to use the Surface tablets and have given them very high marks.

We recommend these tablets for Field Inspection .NET, however, any tablet that meets our published hardware specifications will perform nicely.

## Workstation/Tablet and Server Hardware Tests

Servers running Microsoft SQL need to pass the BS&A Software .NET Hardware compatibility test.

1. Follow this link: <http://www.bsasoftware.com/Technology/Hardware-Requirements>
2. Click the appropriate link: *PC Hardware Test* or *Server Hardware Test*.

The screenshot shows the BS&A Software website. The header includes the BS&A logo, the tagline "Service, Solutions, Support... Satisfaction", and navigation links: HOME, ABOUT, TESTIMONIALS, NEWS / EVENTS. There are also buttons for "Remote Assistance" and "Search Online Property". The main navigation bar includes Solutions, Support, Learning Center, Blog, Technology, and a red "Contact" button. The left sidebar lists various software features, with "Hardware Requirements" highlighted. The main content area is titled "Hardware Requirements" and includes sections for "Hardware Specifications" and "Hardware Compatibility Tests". Under "Hardware Compatibility Tests", there are links for "PC Hardware Test" and "Server Hardware Test", with an arrow pointing to "PC Hardware Test". A footer section mentions "#9 Why use BS&A Software?".

3. Follow the prompts. When the test is complete, a page appears from I.T. Right with the specifications detected.