

## TownSuite Technical Requirements

TownSuite Municipal Software is used by a variety of different people for many uses. We have defined the following user types that will enable you to best match anticipated TownSuite Municipal Software usage to the recommended technical requirements for each TownSuite Municipal Software user.

**Minimum Requirements:** Bare minimum to run TownSuite. This is strongly not recommended especially if purchasing new hardware. This is okay for users who rarely use TownSuite or for any additional computers to be used infrequently.

**Typical User:** Average user who uses modules of TownSuite daily and perhaps even multiple TownSuite applications. However, multitasking (using multiple programs at the same time) is not a concern.

**Power User:** A user who uses multiple TownSuite Applications and other software simultaneously desiring a very effective workflow and results. For those who want to multi-task with the ability to do more in the run of the day, limiting themselves to their own ability and not hardware.

**Mapping Power User:** Modified for extended GPU power and high speed disks, this will allow users who use GIS based tools (Mapping) to process things more quickly allowing to get the task done sooner.

Below are the minimum and recommended technical requirements\* for TownSuite Municipal Software.

Client Workstations	Minimum Requirements*	Recommended Typical User	Recommended Power User	Recommended Mapping Power User
<b>O/S</b>	Windows 10	Windows 10	Windows 10	Windows 10
<b>RAM</b>	6 GB+	8 GB+	8 GB+	16 GB+
<b>Hard Drive Space Required</b>	50 GB+ Free (or less than 90% total storage capacity usage used)	100 GB+ Free (or less than 80% total storage capacity usage used (7200 RPM or greater))	150GB Free (or less than 80% total storage capacity usage used (7200 RPM or greater))	SATA3/PCIe Solid State Drive for core OS + Mapping and its libraries. Spacing requirements vary per client requirements can also follow Power User setup but mapping load/edit will suffer due to lower read/write performance
<b>Network</b>	100 MB LAN	1 GB LAN or greater	1 GB LAN or greater	1 GB LAN or greater
<b>Processor</b>	Intel dual core or greater Intel i3 or greater AMD Athlon or Phenom	Intel i5, Intel i7, AMD, FX or Opteron Intel Xeon	Intel i7, Intel Xeon E3, E5, E7	Intel i7, Intel Xeon E3, E5, E7
<b>Graphics Card (GPU)</b>	Integrated	Integrated or default system  <b>GPU Passmark score over 600</b>	Moderate consumer level card such as Nvidia GeForce or AMD Radeon HD  <b>GPU Passmark score over 1000</b>	Mid-High end professional series card such as AMD FirePro, Nvidia Quadro or high end consumer cards such as Nvidia GeForce GTX  <b>GPU Passmark score over 2500</b>
<b>Display Recommendations for optimal productivity**</b>	N/A	22" or larger display with resolution of 1900x1080 or greater	23" or larger display with resolution of 1900x1080 or greater with dual monitor workflow	23" or larger display with resolution of 1900x1080 or greater with multiple monitor workflow

Database Server	Minimum*	Recommended	Power Server
O/S	Windows Server 2012 R2	Windows Server 2016	Windows Server 2016
RAM SQL Express Microsoft SQL Database	8 GB+ 8 GB+	- 16 GB+	- 32 GB+
Hard Drive Space Required	200 GB with at least 10% of total storage drive free	1 TB dedicated drive with at least 20% of total storage drive free	4 x 500 GB – 1 TB SSD with high speed RAID 10 disk arrays. At least 20% of total storage drive free
Network Speed	100 MB LAN	1 GB LAN or greater	1 GB LAN or greater
Internet	DSL / Cable	Fibre Connection (>5Mbps)	Fibre Connection (>10Mbps)
Processor	Intel I5, Intel I7 Intel Xeon X Series AMD Opteron	Intel Xeon E3, E5 or E7 Series Intel Xeon X E or W Series	Intel Xeon E3, E5 or E7 Series Intel Xeon X E or W Series
Application / Database Server	SQL Express 2014	SQL Express 2014 Microsoft SQL Server 2014	Microsoft SQL Server 2014
Multi-product use**	No	Yes	Yes

Additional Requirements / Specifications	
Known Compatibility Issues	Microsoft SQL Database Component(s) should not be installed in the same operating system environment as an Active Directory Domain Controller or Exchange Server, as recommended by Microsoft. Doing so can cause significant issues with system performance and security.
Custom Reporting	Crystal Reports, Microsoft Reporting
Optional Peripheral Devices Supported	Laser Printers, Card Reader, Cash Drawer, TWAIN Compliant Scanner, Handheld Meter Data Collector (USB, Parallel, Network), 2D Barcode Scanner
Data Back Up System	Suitable backup system to safeguard municipal data. Size matched to Server Hard Drive Space. Servers should also be RAID protected for both redundancy and increased performance.
Web Services Application Connection	Ability to connect to a "Site to Site" IPsec VPN (hosted via PROCOM Data Services Inc. with ABM Integrated Solutions). This requires a higher tier internet connection with Minimum 5Mbps Upstream.

- ❖ PROCOM Data Services Inc. does not supply, install, setup or support any computer or network hardware, peripheral devices, backup systems (unless provided by PROCOM), networks or software other than TownSuite® Municipal Software.
- ❖ For optimal performance of TownSuite Municipal Software it is strongly suggested that the recommended technical requirements are implemented. This will significantly improve the performance of TownSuite Municipal Software.
- ❖ SQL Server is significantly more robust than SQL Express and designed to maximize system performance in a networked environment.
- ❖ Recommended technical requirements consider the software environment that is ideally suited to start you off in TownSuite with consideration to other software that you may have or implement and the size of the computer network that is maintained by your municipal unit. These recommended technical requirements may also enable your computer and network environment to accommodate regular software updates and add-on TownSuite software modules for some time into the future.
- ❖ Minimum technical requirements specify the minimum requirements to operate your TownSuite Municipal Software. Implementing minimum technical requirements may result in slow network speed that can impact the speed of applications such as TownSuite or other software applications that you depend on. These conditions may worsen with updates, add-on modules and additional software.

\* Minimum requirements of Client Workstations and Servers are subject to an evaluation by TownSuite to determine compliance with technical requirements.

\*\* PROCOM Data Services Inc. uses a high resolution, dual monitor setup for all employee workstations. Since this transformation, all employees have shown signs of significant improvement in overall workplace performance and productivity. For potential Power Users, a multi-monitor workflow can help multitask and arrange things in a way that is simply not possible with a single monitor workflow. While it is not a requirement we strongly feel that we should highlight the benefits to our clients of a multi-monitor workflow for "Power Users" of TownSuite Municipal Software.