

ScrumWorks™ Server Hardware Recommendations

Introduction

Hardware requirements for ScrumWorks Pro Server vary depending on usage. Derived from our experience tuning customer installations and our own production environment, the requirements outlined in this guide are enough for typical small- to medium-sized organizations and products. In order to understand terms used below and how ScrumWorks uses your server's memory, Please read the document "Memory Management in ScrumWorks" [1].

Danube Technologies' In-house Configuration

For our own ScrumWorks Server at Danube, we use the default installation settings. These are: 128 MB of PermGen space and a maximum of 768 MB heap for a total of 1 GB + JVM overhead. As noted in [1], this memory won't be allocated until needed, but it will rarely be released after allocation.

The amount of memory actually used depends on the number and size of your products. Our database is 7.5MB on disk, which-consumes more than 50 MB of the available heap memory. Table 1 shows an overview of how much memory is used once ScrumWorks starts and all products are loaded. The memory used includes the loaded database, JBoss server, and the ScrumWorks Pro application.

Table 1 - Danube Memory Usage

| DB Size (disk) | Initial RAM used | # Products | # PBIs Total |
|-----------------------|-------------------------|-------------------|---------------------|
| 7.5 MB | 130 MB | 22 | 2900 |

With regular usage by a small number of users, the amount of heap memory allocated to JBoss, ScrumWorks Pro Server, and the database grows to the maximum 768 MB.

Because of this large memory requirement, ScrumWorks Pro is installed on a dedicated server with 2 GB of physical RAM.

Recommended Configurations

The configurations listed below are guidelines. Each may be modified based on organizational use of ScrumWorks Pro. In either scenario, we recommend that the ScrumWorks Pro Server be installed on dedicated hardware. Table 2 describes where the breakdown between installation sizes occurs.

Table 2 - Installation Sizes

| | Small – Medium Installation | Large Installation |
|---------------------------|------------------------------------|---------------------------|
| # Concurrent Users | 1-100 | 50+ |
| # PBIs | 1-4000 | 4000+ |

To clarify Table 2, ScrumWorks Server instances with more than 4000 PBIs require hardware upgrades with as few as 50 concurrent users. Product size impacts performance as much as concurrent use and must be taken into account in determining hardware requirements.

Small – Medium Installations

The recommended hardware for this type of installation is:

CPU: Dual processor (or core)

Memory: 2 GB physical RAM

Disk Space: 200 MB plus room for the database to expand

Large Installations

Large installations will need additional tuning to take advantage of the hardware listed below. Please contact ScrumWorks Support (support@danube.com) for tuning information and instructions.

CPU: Quad processor (or core)

Memory: 4 GB physical RAM

Disk Space: 200 MB plus room for the database to expand

References

1. "Memory Management in ScrumWorks". February 2008.