

Provardis White Paper

“Performance Tuning Your Progress Database Application”

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YOUR CONTEXT

You may work within a large enterprise, a medium size organisation or a regional business in the UK or Ireland.

Your organisation may be running one or more software system(s) based on the Progress Relational Database or 4GL from Progress Software Corporation (NASDAQ:PRGS).

You may have a manufacturing application, a retailing system, a billing system or perhaps another specialist system which supports part of your business operation.

And you are responsible for ensuring that your organisation has support for the system(s) for when things aren't working how you need them to.

MORE DETAIL ON YOUR SITUATION

Since the system(s) supports part of your business, you need it to do the job you put it there for. More specifically, your people need it so they can do their jobs better. If they do their jobs better they will be happier, your customers and suppliers will be happier, your business will perform better and you will therefore be happier. Overall your organisation should then be better placed to make more sales, reduce its costs, or both.

If your system is not performing how it should, then either or both of the **following conditions** are likely to arise.

- Your staff will be less happy than they could be, therefore less productive than they could be.
- Your staff will be placed under stress, which would not have otherwise occurred.

The likely result of these conditions is that the same will become true for you. Even worse, your organisation will then be underperforming – all as a direct consequence of unsatisfactory system performance.

A POORLY PERFORMING SYSTEM HARMS THE ORGANISATION

Business Processes are disrupted

You have probably invested a lot of time and money in your core database application. Time spent choosing the system and testing that it does the job you need it to do. Time and money spent installing the hardware and software, then modifying and adding enhancements to make it support your business. Likely you also spent much time and effort reviewing and improving your business processes and further improving your application to support those new methods. If your Progress database or software is performing badly, all this investment and hard work is being wasted. The money you have already spent may be seen by others in the organisation as wasted too. That is bad for morale.

Users become frustrated

Most companies put a lot of effort into training users in the operation of core systems. Users expect systems to perform tasks according to specified timings and schedules, so they can do their work properly. If you have designed your processes to carry out business transactions efficiently, then every delay which results from poor system performance *must* hit the organisational performance level. Users will rightly become frustrated because the computer system (which they expect should be the fastest part of the process) prevents them from meeting their own obligations and targets.

IT Department gets the blame

Like it or not, the IT department is seen as the people responsible for choosing computer systems and for ensuring they work properly. With large scale packaged software, the application vendor will typically install the environment and carry out the initial application configuration. Unfortunately, sometimes the initial configuration is fine for an empty database with the original number of users or connections - but over time you may have added users, created new connections, and certainly will have collected lots and lots of data. Then you might find that everything begins to slow down, reports take longer, screens freeze up and users are kept waiting. Even worse if customers are on the line and waiting for a response from your users. The system is then held to blame, and the IT department is in charge of the system.

Expensive and unnecessary cost may be incurred

If the system is causing delays, soon the subject comes up at a board meeting. The board requires answers and solutions fast, as frustrated users and inefficient systems cost the business money through lost sales and diminished reputation. Unless the system performance is properly reviewed, the pressure to find a quick solution raises the possibility that money and effort is directed at the wrong things.

SUMMARY OF STEPS TO TAKE

Check the basics

In our experience, application and database design is one of the first things to check on a poorly performing Progress system. Identify particular screens or reports that cause excessive delay. Have the Progress code and database design checked either by the software vendor or by an experienced third party.

Get a system performance review

Arrange for a review of the system environment, including database health status, and analysis of database structure and usage, disk, memory and CPU usage.

Measure, Adjust, Monitor °

There are many steps that can be taken to boost performance. But a fundamental part of the process is to be able to measure and track how small changes affect performance. By understanding the current situation in terms of individual metrics, then choosing an appropriate incremental change and monitoring the effect over a reasonable period of time – this is a very effective way to performance tune your Progress database system.

Buy or build?

Measuring and monitoring can be achieved several ways. There are products available from Progress Software Corporation which are specifically designed to provide enterprise grade performance monitoring and tracking, ([OpenEdge Management™ for OpenEdge 10 platform](#), [Fathom Management™ for Progress version 9](#)). These products cover the database **and** the operating system metrics.

The Progress database provides a lot of database statistics through Virtual System Tables (VSTs). This information is constantly updated whenever the database is open. It is possible to monitor database information using tools such as *promon*, or by interrogating the VST records directly through a progress session.

The *promon* commands are provided with the database product. Alternatively there are some open source licensed tools which interrogate the VSTs and provide ways to view and collect database metrics.

Operating system metrics can be obtained using various OS command line tools depending on the OS platform. Usually these tools give instant readout and the user has to build the means to collect and store the metrics if they wish to look at trends and performance over a time period.

There lies the balance between the cost and effort of building an effective monitoring system for database and OS metrics, versus the cost, convenience and peace of mind in purchasing a ready built enterprise grade performance management system.

Both routes will require an implementation phase and user training in order to be effective. The ready built product will also typically incur an annual maintenance charge in order to qualify for support. The DIY build route also incurs maintenance costs through relatively high costs of skilled technical staff plus measures to ensure the knowledge is retained in the organisation, allowing for a normal rate of staff turnover.

THE WAY FORWARD

Provardis can **definitely** provide you with performance tuning support for your Progress based system.

- We can carry out your initial system performance review.
- If you intend to implement a performance monitoring system then we can help in your buy or build decision by introducing and explaining some of the options.
- If you require we will help you with installation and admin user training.

- Performance tuning usually links in with hardware configuration, which then leads on to your disaster recovery strategy. We cover this area too and are able to discuss options including replication and backup strategies.

Our founding director Andrew Sheldon has experience for the last twenty years with the Progress database and programming language. Our skills come from a solid foundation of time-served custom build development houses.

The service you will get from Provardis is a high level of technical competence in Progress, attention to your detail, excellent customer service, complete discretion, and the ability to understand the key issues and work according to the priorities you set.

Provardis is a Progress® ISV Partner in the UK and has been since 1995.

We can act as your architect on all matters related to Progress.

For Customer enquiries please either email to progress@provardis.co.uk

or call us on +44 (0) 1423 876 339 (Harrogate) specifying a new Progress performance enquiry.