

The maintenance of your software can be executed by your own developers or by expert partners. This brochure demonstrates what professional management and maintenance entails. We will show you the advantages of hiring VORtech to organise or execute the maintenance for you within your company.

# Maintenance management

Bringing your scientific software to a higher level with less effort

scientific software engineers

# Management and maintenance of your software

Management and maintenance of software entails securing your software and its documentation. A good software management system makes it possible to access previous versions of the programs and documentation. The software is organised on a structural basis, thereby making it easier to expand the system and trace and correct mistakes. We can set up a clear cut helpdesk facility to help you and your clients with questions and problems. A good maintenance system is an asset for developers and users.

The maintenance of IT systems is usually organised according to the Information Technology Infrastructure Library (ITIL). For software specifically, the context is provided by the Application Services Library (ASL). Within the ASL, certain processes are defined, which form the backbone of the maintenance management. Examples of these processes are:

- incident management Dealing with bugs and problems, the goal being to enable the user to resume work as soon as possible.
- change management Realisation of a structured adaptation of programs so that there is a reliable version available at all times.
- quality management Improvement of the internal quality of programs, among others by tracing the cause of incidents and solving them.
- testing Testing parts of the software with respect to functionality and performance.

To implement these processes, we apply various tools. A very conspicuous one to the client is the (online) service desk for making requests or reporting problems. They immediately receive a reply specifying what steps are being taken and when a response is forthcoming. Besides



that, there is the version management system, that stores different versions of the software (or parts thereof) in an orderly fashion. Naturally, there are excellent backup procedures that guarantee the safekeeping of software and documentation.

## VORtech as a partner in maintenance management

VORtech is a specialist in the field of computation and simulation software. Our experienced staff consists of academically educated mathematicians and computer science specialists. Therefor we can perform maintenance management for computational codes that are too complex for more common software houses. We have managed software and helped set up maintenance systems for a range of clients since 1998. Our clients are government



services, large engineering firms and multi-national companies, but also smaller companies. And our clients tend to stay with us.

An important aspect of the way we work is that we tend to think along with our clients. You not only buy our time, but also our vision on maintenance, development and marketing of software. We proactively spot options for improvement of programs or ways of cutting costs or improving efficiency of maintenance. If things get too complex, we consult your own experts. In short: we consider you not only to be our client, but our partner.

### Everything according to plan

Before starting the maintenance management, we transfer the code to our environment according to a transition plan. This plan is always specific for a client, but usually entails:

- making a software inventory;
- · a code quality check;
- a plan for building the required knowledge in the team
- a plan for training the client on the procedures.

Our Service Level Agreement (SLA) is the basis for outsourcing management and maintenance. It states how long tackling and solving a problem is allowed to take. Service levels can be adapted to meet your changing needs. The SLA allows for different types of maintenance:

- corrective maintenance Diagnosing and fixing errors in programs.
- adaptive maintenance Adapting programs to a changing environment, such as a new operating system or new compilers.
- perfective maintenance Adding new features to programs.

# Outsourcing is cost efficient

Outsourcing of maintenance can be cost efficient when done properly. VORtech has optimised its internal organisation for the execution of maintenance management. We can also offer a scale cost advantage. The costs of tools are shared between our many clients. Temporary peaks in maintenance can easily be alleviated by our large pool of staff. Outsourcing makes for a better insight in your costs for maintenance. You can easily manage these costs by upgrading or downgrading your service levels. Good maintenance management contributes to an increased value of your software. User feedback is employed to improve and expand software. Improvement of the software architecture not only heightens maintainability. It can also help you to introduce new features to the market place.

# We guarantee confidentiality

At VORtech, we consider signing a confidentiality agreement only a first step. We also follow procedures to ensure that what comes from inside your company, stays there. If your company develops a new functionality, you don't need to see your competition benefitting from your investments. As a matter of fact, we try to avoid working for direct competitors within the same field. If for some reason we do happen to work for your competitor, we will be sure to communicate this to you.

#### Your software in good hands

VORtech sets great store by stability. We have grown slowly but surely since we were founded and expect to do so in the years to come. We achieve quality by applying professional, standardised maintenance methods (ITIL, ASL) and maintenance tools. Our quality assurance system is based on ISO standards. We make sure multiple staff members are familiarized with your software. We will also make sure software and procedures are fully documented. Hence, maintenance management can be reassigned to a third party relatively simply. The quality of our service is always our primary concern.

#### Interested?

If you are interested in the possibilities of outsourcing the maintenance management of your software or (re)organize the maintenance structure within your company, you can contact:

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