



## HP and Axceleon

Multi-core utilization without threading

### EnFuzion lets single-threaded, data-parallel applications execute in parallel without re-writing

#### Are you multi-core ready?

Most independent software vendors (ISVs) have invested substantial resources to develop and optimize their products over time. Threading these programs to utilize multi-core hardware requires some degree of initial destabilization. Often, first efforts in threading applications come up short of their performance targets.

#### EnFuzion allocates work among cores

EnFuzion is ideally suited for use by ISVs that currently produce single-threaded, data-parallel applications for the mathematical, statistical, engineering analysis and visualization, 3D animation, financial simulation, and life sciences fields. EnFuzion is also an excellent solution for home-grown applications used by all kinds of enterprises. Removing the need to thread their applications, ISVs can utilize EnFuzion to go to the market immediately with multi-core-enabled products. These products can take full advantage of the new parallel hardware architecture and produce a performance boost for users, without requiring additional development effort.

#### Solution benefits

- EnFuzion speeds time to market for ISVs; customer realizes benefits sooner
- Approaching 100 percent utilization of hardware resources for the ISV; code is able to produce faster results
- Scalable solution for multi-core processors, clusters and grids
- Multiple implementation options enhance flexibility for the ISV and customer.
- Multi-core execution utilizes all available resources for the customer.



#### Working together with HP

High performance computing (HPC) solutions enable rapid advancements innovation, cost-efficiency and productivity. Using proven HPC methodologies, organizations of all sizes can speed and optimize their scientific, financial, discovery and development processes to drive greater success. Working collaboratively with HP, we apply our vast knowledge and experience in HPC to deliver complete solutions that help you tap into the awesome strength and flexibility of supercomputing, powered by highly reliable HP servers.



## Approaching 100 percent multi-core utilization

The advent of multi-core processor technology promises unprecedented performance improvements, while ISVs and corporate IT professionals face the challenge to retool their applications in order to take advantage of these new platforms. While the techniques for creating multi-threaded versions of applications are relatively well-known, threading projects tend to be complex and obtaining optimal results can be a challenge. EnFuzion provides an alternative to threading those applications. By exploiting process-level data parallelism, EnFuzion enables single-threaded applications to fully utilize all execution cores of a multi-core processor and achieve an application performance gain. EnFuzion enables faster time-to-market and lower development costs to take advantage of the emerging generation of multi-core solutions from HP.

### HP products supported

Our solutions are supported on a broad range of HP servers across both RISC and/or Intel® architectures. From blades and clustered servers to high-powered, 64-bit, multi-processor supercomputers, HP servers set the standard for performance, scalability, availability and manageability. With industry-leading innovation and value, HP servers are the ideal choice for helping you meet today's business challenges while preparing for tomorrow's.

### HP software

To provide the intelligent tools you need to deliver business-critical data and services on time, every time, our solutions leverage the HP portfolio of management software solutions. With HP software solutions, you can reach all new levels of insight into and control over your business environment. You'll be able to increase the performance of your infrastructure, anticipate and correct problems before they become critical, automate and manage change in real time, and keep your data secure.

### Operating systems supported

Tackling today's business challenges requires flexibility and the ability to choose—and that includes operating environments. In many cases, it means using multiple operating environments within the same infrastructure. To help you meet this challenge, we provide comprehensive support for a wide range of operating systems:

- HP OpenVMS – unique, disaster-tolerant solutions that provide long-term business value and the high levels of protection you need to safeguard your most important asset—your information
- HP-UX – powerful, virtualized solutions that not only automatically allocate resources to meet fluctuating demands, but also intelligently manage your computing environment for greater insight and control
- Linux® – cost-effective, industry-standard solutions that drive a fast return on IT investments
- Microsoft® Windows® – highest-quality solutions delivered quickly, efficiently and at the best cost—enabling you to keep pace with the rapid changes in today's volatile marketplace

### Building on the value of strong relationships

By working collaboratively with HP, we can leverage extensive resources, deep experience and broad industry knowledge to provide innovative solutions that drive positive business results and long-term value. With a proven record of success in virtually every industry in every region worldwide, HP understands what you need to increase your organization's success. Together, we can deliver best-fit technology and services to meet your unique business requirements.

Axceleon's EnFuzion is a mature and field-proven offering that supports multi-core processors and hyper-threading technology in the same way that it has supported compute clusters for 11 years. EnFuzion continues to enable users to achieve maximum utilization of hardware, without the need to reinvent their applications.

### Working together to drive success

By combining standards-based and high-performance technologies from HP with our leading-edge applications and comprehensive services, we can deliver a powerful, flexible solution that meets your technology requirements. With a tailor-made solution designed by business partners you trust, you can face your toughest business challenges—including increasing productivity, quickening time to market and reducing operating costs—through greater efficiency, rapid discovery and reduced development cycles.

## Technology for better business outcomes

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