

Active Motif and the Center for Biotechnology (CeBiTec) deploy TimeLogic genomic analysis system at Bielefeld University.

For Immediate Release—Bielefeld, Germany and Carlsbad, CA—September 13, 2011. The Center for Biotechnology (CeBiTec) at Bielefeld University has implemented a large DeCypher[®] system to assist researchers in their efforts to unravel the function of novel genes and proteins. TimeLogic's DeCypher systems greatly increase the speed of sequence comparison by combining field programmable gate array (FPGA) based PCIe accelerator cards with high-performance servers to process optimized implementations of BLAST, Smith-Waterman, Hidden Markov Model and gene modeling algorithms.

"The TimeLogic technology enables this system to outperform a cluster of thousands of CPU-cores, yet its physical footprint is under half of a server rack. And, because the FPGA accelerators run cool and contain no moving parts, they deliver the exceptional lifespan and reliability of a solid-state device," commented Michael Murray, Manager of Sales & Marketing activities for TimeLogic products at Active Motif.

Dr. Alexander Goesmann, Executive Director of the Bioinformatics Resource Facility (BRF) at CeBiTec added, "With the data generation capabilities of next-generation sequencers increasing by 2-3x per year, we expect biological data repositories to continue to grow at a staggering rate over the next few years. The ease of expansion offered by the DeCypher solution enables us to cost-effectively mine these rich genomic resources. We were able to reduce the time needed for a full-blown annotation of a bacterial genome from several hours to less than one hour just by deploying the DeCypher systems. We expect further improvements by optimizing our internal compute job processing and scheduling, and we are confident that the new systems will boost our compute capacities to facilitate the analysis of microbial and eukaryotic genomes as well as metagenomes." Dr. Goesmann continued, "The performance, administrative convenience, and value (cost per computing unit) of this system makes it an ideal choice for our computational biology research".

About CeBiTec

The CeBiTec is a central academic institution at Bielefeld University, Germany dedicated to interdisciplinary research in life sciences. It is a place to encourage and support the creation of innovative projects that cross discipline boundaries. For this purpose it consolidates research activities in the fields of biotechnology, molecular biology, genome research, systems biology, biochemistry, nano- and biophysics, as well as bioinformatics and computer science. With respect to the scientific alliance of genome research and computer science, CeBiTec strives to provide both concrete bioinformatics support to ongoing research projects in genomics, and fundamental algorithms and tools applicable in the worldwide bioinformatics community. The Technology Platform Bioinformatics provides general hardware and software support for 400 researchers of the CeBiTec and more than 1500 cooperation partners worldwide within genome and post genome projects.

About Bielefeld University

Bielefeld University was founded in 1969 with an explicit research assignment and a mission to provide high-quality research-oriented teaching. Today it encompasses 13 faculties covering a broad spectrum of disciplines in the humanities, natural sciences, social sciences, and technology. With about 17,500 students in 80 degree courses (in German) and 2,600 staff (including approx. 1,480 academic staff) it is one of Germany's medium-sized universities.

Since its foundation the University has been guided by the paradigm of interdisciplinarity, as today's complex problems can no longer be adequately tackled through mono-disciplinary approaches alone. Here interdisciplinarity stands for a spectrum of multiperspectival approaches of different kinds and intensities. As the architectural expression of its interdisciplinarity, the University unites - uniquely in Germany - almost all its departments in a single building. This striking structure brings people working in different disciplines together in close proximity. The culture of communication fostered between students and teaching staff as well as between researchers, management, and administration is characterized by great openness towards new and unconventional ideas. Thus, it is not surprising that Bielefeld University has been one of the first places world-wide to establish the emerging discipline of bioinformatics both in research and education.

About Active Motif

TimeLogic is a division of Active Motif, Inc. TimeLogic products accelerate genome annotation by combining optimized bioinformatics applications with powerful FPGA-based PCIe accelerator cards. This blend of specialized hardware and optimized software provides a perfect combination of performance, accuracy and value. Furthermore, these systems are simple to maintain and scale easily. Utilizing a TimeLogic system reduces pressure on over-used CPU-cluster by off-loading BLAST, Smith-Waterman (SW) and Hidden Markov Model (HMM) tasks to a highly time and energy efficient solution. Active Motif/TimeLogic operates globally through its corporate headquarters in Carlsbad, California, European headquarters in Rixensart, Belgium and Japanese headquarters in Tokyo, Japan. Active Motif/TimeLogic applies a multi-disciplinary approach to create new and modify existing technologies to meet the current and future needs of life science researchers.

Find out more by visiting us at www.timelogic.com or contact Michael Murray at tlsales@activemotif.com.