

Features	TTG Apptimizer Suite			
	Lite	Workstation	Mini-cluser	Supercomputer
ttgLib				
Number of nodes	1	1	Up to 20	Up to 1000
MPI support	No	No	Yes	Yes
Common algorithms	1	3	4	5
Load balancing algorithms	1	2	3	5
Task scheduling algorithms	1	2	3	5
Optimization statistics reusage	No	Limited	Yes	Yes
ttgControl				
Web interface	Yes	Yes	Yes	Yes
ParameterManager	Yes	Yes	Yes	Yes
DeviceManager	No	Yes	Yes	Yes
OptimizationManager	No	Limited	Yes	Yes
ClusterManager	No	No	Limited	Yes
ttgTune				
Checker	No	Limited	Yes	Yes
Accelerator	No	Limited	Yes	Yes
Working places				
Working places	-	Up to 3 PC	Up to 10 PC	Up to 20 PC
Support				
Support	Forum	E-mail	E-mail and phone	E-mail and phone
Response time				
Response time	-	48 hours	24 hours	24 hours
Price				
Price	Free	500\$	Under development	Under development

Visit <http://ttgLabs.com> for details

No — option is not available
 Limited — some features are disabled
 Yes — option is fully supported

Free version
inside!

TTG Apptimizer Suite

CPU+GPU autotuning toolkit

for Microsoft Windows and Linux

TTG Apptimizer Suite is aimed to accelerate your heterogeneous application by tuning it to "current hardware + data" bundle.

The key feature of TTG Apptimizer is the self-learning optimization mechanism: the longer your software runs, the faster it becomes.

KEY FEATURES

- ◆ Dynamically tunes your software to processing data and target hardware
- ◆ Automatically scales computations onto CPUs and multiple GPUs
- ◆ Individually selects the best branch or kernel for each computing device
- ◆ Detects the best values for all «magic» constants
- ◆ Provides heterogeneous versions of the most popular parallel programming primitives
- ◆ Embodies numerous optimization strategies and algorithms

How can I try it?

Lite version is free – and it's just in your hands! However, you can purchase full-fledged versions that contain advanced optimization mechanisms and a lot of additional features and components.

Q & A

Does TTG Apptimizer target binary files or source code?

TTG Apptimizer should be integrated into the source code. Its core component, ttgLib, provides a rich collection of C++ template classes that implement some hybrid primitives and optimization routines. Integration of these primitives and routines into your source code will trigger optimization support and will allow you to obtain a better performance.

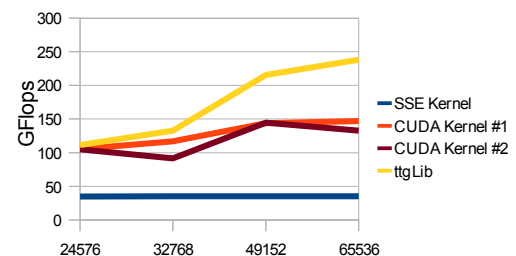
How does TTG Apptimizer perform code generation?

TTG Apptimizer does not generate any code, but it provides routines for managing and tuning any computing kernel. For example, you can create SSE- and CUDA-versions of the target algorithm, and TTG Apptimizer will simultaneously launch it on all CPUs and GPUs, performing load balancing and kernel tuning in runtime.

How does it differ from ...

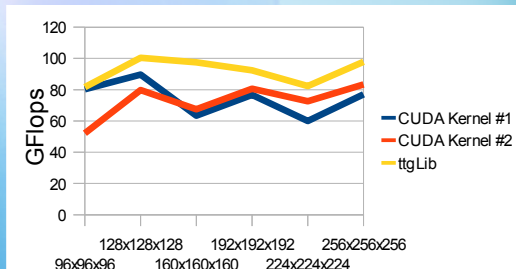
The difference lies in focus. TTG Apptimizer does not help you to create a new GPU program, but it helps to make the existing one really fast. Furthermore, you can use TTG Apptimizer together with one of the code generation solutions (such as PGI Accelerator, HMPP, CUDA/OpenCL compilers) as a computing kernel manager in order to create an application that will work fast on any system and with any data.

N-body simulation



Average SpeedUp — 1.40x

Laplace solver



Average SpeedUp — 1.25x

Supported Compilers

- Microsoft Visual C++ 2005/2008/2010
- GCC 4.3 and higher
- Intel C++ *

Supported Hardware

- NVidia GPUs
- AMD and Intel CPUs
- AMD GPUs and APUs*

Supported APIs

- NVidia CUDA Toolkit 4.0/4.1/4.2/5.0
- Intel OpenCL SDK*
- AMD APP SDK*

Supported OSs

- Microsoft Windows Vista/7/8
- SLES 11 sp2 and higher
- Ubuntu 11.10 and higher

* will be added soon