MATLAB Acceleration on NVIDIA® Tesla
Target Markets: Academia, Finance, Life Sciences

Why should customers care?
- Faster time to discovery with no programming expertise requirement
- Empowers users with cluster-like performance in a workstation

Why should I care?
- Over 1 million+ MATLAB users in 175 countries
- Upsell opportunity from PC to workstation
- Tesla value drives higher ASP per workstation unit sale

What is GPU Computing?
- GPUs enable cluster-level performance in a Z400 or Z800
  - The CPU runs the sequential portion of the workflow
  - The GPU runs the parallel portion of the workflow

What MATLAB solution leverages the Tesla GPU?
- MATLAB 2010b Parallel Computing Toolbox

What target customers would benefit?
- Researchers at universities and high performance computing centers
- Finance researchers and quants
- Pharma researchers in computational biology

Why HP Workstations vs other OEM solutions?
- Dell T7500 only fits a single Tesla C2050 in chassis
- Entry solution with Z400 is price performance leader

Recommended HP Workstation Configurations

**ENTRY: Z400**
- Tesla C2050
- Quadro NVS 295
- Single Socket
- Xeon Quad-Core
- 8 GB DDR3

**PERFORMANCE: Z800**
- 2x Tesla C2050
- Quadro NVS 295
- Dual Socket
- Xeon Quad-Core
- 12 GB DDR3

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Short Elevator Pitch
If your research depends heavily on MATLAB simulation, we have a solution that can accelerate your simulation run-time from hours to minutes. Mathworks recently released a version of MATLAB to seamlessly support NVIDIA Tesla GPUs. GPU computing processors have massive computational capabilities and have transformed the high performance computing industry. HP has been working closely with NVIDIA and Mathworks to provide the best MATLAB solution in the workstation market today.

Common Questions from Potential Customers-
Q) What MATLAB version do I need?
MATLAB 2010b supports GPU acceleration through its Parallel Computing Toolbox.

Q) Do I need to recode my MATLAB program to run on the GPU?

Q) What MATLAB features are supported on GPUs?
Numerous features are now supported on the GPU. For more info: http://www.mathworks.com/help/toolbox/distcomp/bsic3by.html.

Q) My organization has a site license. What do I need to do next?
If you do not already have access to MATLAB 2010b, please ask your local representative for more information on this latest release.

Q) Why should I not use consumer GPUs with MATLAB?
Mathworks, NVIDIA, and HP all do not recommend using consumer GPUs for MATLAB computation due to lack of testing and support. For more info, please visit http://www.nvidia.com/object/tesla-matlab-accelerations.html.

Additional Resources:
- MATLAB GPU Computing with NVIDIA GPUs
  http://www.mathworks.com/discovery/matlab-gpu.html
- NVIDIA MATLAB Site
- GPU Computing with MATLAB, Loren Dean, Director MATLAB Engineering
  http://developer.download.nvidia.com/compute/cuda/docs/GTC_2010_Archive.html#RANGE!A264
- Speeding Up MATLAB Computations with GPUs
- GPU Computing with MATLAB demos
- Accelereyes Jacket: 3rd Party MATLAB Accelerator
  http://www.accelereyes.com/

NVIDIA Country-specific Contacts

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