



PROFILING MPI CODES WITH INTEL[®] VTUNE[™] AMPLIFIER ON THETA

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Agenda

- Introduction
- Resources
- Demo of sample app
- Q&A
- Wrap up

Resources

- Key resource for Intel VTune Amplifier on Theta
 - <https://www.alcf.anl.gov/user-guides/vtune-xc40>
- All Intel VTune documentation is online
 - Start with: <https://software.intel.com/en-us/vtune-amplifier-help>
 - Online help command on Theta:
theta> ampxe-cl -help collect
- Materials for today's demo of the miniFE benchmark/mini-app
 - <https://github.com/Mantevo/miniFE>
 - Video:
<https://www.youtube.com/watch?v=5rInOvR19Cw&list=PLGj2a3KTwhRaYv0nW3ZYiqxdwizOkGwlh&index=6>
 - Slides for video: https://press3.mcs.anl.gov/atpesc/files/2017/08/ATPESC_2017_Track-5_5_8-8_130pm_Meadows-VTune_Amplifier_XE_on_Theta.pdf

Building miniFE on Theta

- Clone the miniFE git repository

```
theta> git clone https://github.com/Mantevo/miniFE  
theta> cd miniFE/mkl/src  
theta> make
```

- Run code as a sanity check

```
- aprun -n 4 -N 4 -cc depth -d 1 -j 1 <path-to-executable-dir>/miniFE.x -n 100
```

Demo

¹<http://www.top500.org>

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Q&A

¹<http://www.top500.org>

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