



materials design®

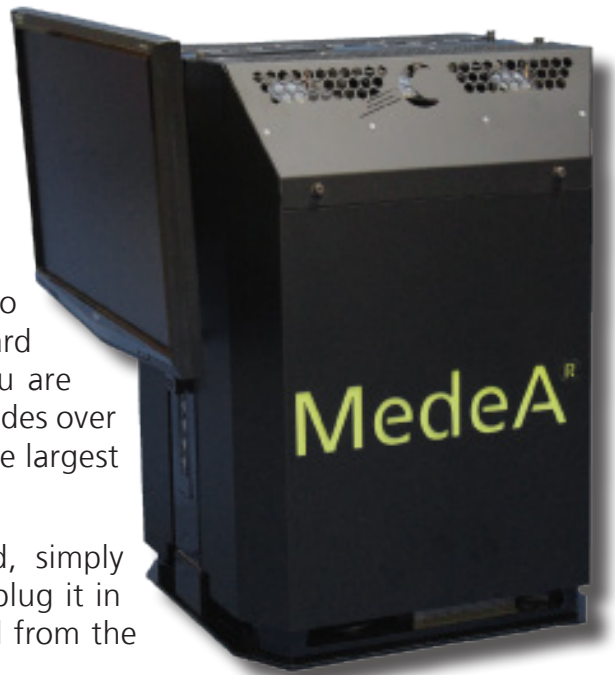
MedeA® Instrument

Skip the Datacenter - High-Performance Computing and Simulation From Your Office

The MedeA® Instrument provides a powerful, integrated platform for atomistic simulations. State-of-the-art hardware and design bring *affordable*, high-performance computing out of the datacenter and into your office. The MedeA® Environment is preinstalled, including the modules you need, by our team of experts saving you time and hassle.

The MedeA® Instrument has been carefully designed to be quiet enough for your office. It plugs into a standard wall socket, and does not need special cooling – if you are comfortable, then it is too. The MedeA® Instrument provides over 3 TFlop of peak computing power - more power than the largest supercomputer in the world about 16 years ago!

And since the MedeA® Instrument arrives preinstalled, simply unpack it, connect the monitor, keyboard and mouse, plug it in and start modeling at a level you never have before. All from the comfort of your office or lab - datacenter not included.



Key Benefits of the MedeA® Instrument

- ▶ *Ready to go out-of-the-box.*
- ▶ *Integrated MedeA® Environment, queuing system, performance monitoring and optional remote access via a VPN preinstalled and configured.*
- ▶ *Suitable for an office environment:*
 - *Quiet*
 - *No special cooling needed*
 - *Plugs into a standard wall socket*
- ▶ *The compute power to run more simulations faster.*
- ▶ *A single contact for complete support of software, operating system and hardware.*
- ▶ *Installation support and consulting.*
- ▶ *Continuing scientific and technical support for the entire system, software, operating system and hardware.*

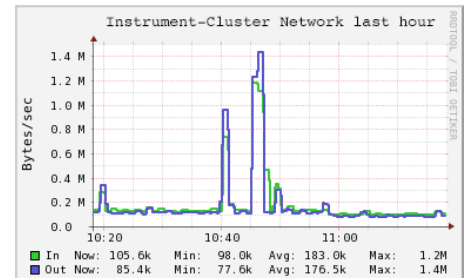
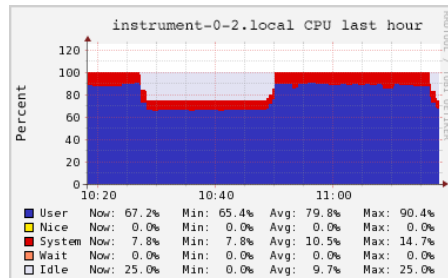
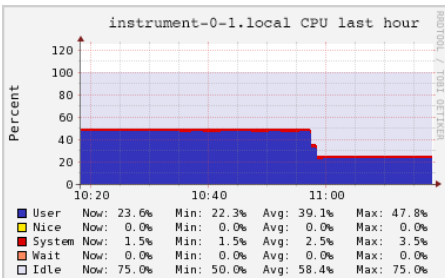
Characteristics of the MedeA® Instrument

- ▶ *Runs all simulations available in the MedeA® Environment:*
 - *VASP*
 - *LAMMPS*
 - *GIBBS*
 - *GAUSSIAN*
 - *MOPAC*
- ▶ *80 cores in standard configuration, providing over 3 TFlop of peak power.*
- ▶ *Able to standalone, providing a complete solution with no need for a network connection.*
- ▶ *Or, in network mode you can connect to it from MedeA® running on your laptop or desktop.*
- ▶ *Can be expanded past 128 cores by adding additional nodes.*



Specifications

Dimensions (W x H x D)	21 x 26 x 22 " 535 x 660 x 560 mm
Weight	65 lbs 30 kg (single node) 90 lbs 40.8 kg (2 nodes)
Voltage	110-240 V
Power	1300 W, 12 A @ 110 V, 6 A @ 240 V
Headnode	3.5 GHz Xeon E5-1620 32 GB memory, 2x 2 TB SSHD Raid1, GTX1030 graphics card
Nodes	1 or 2 physical nodes / 2 or 4 logical nodes
Processors	2.2 GHz Xeon E5-2630 each with 10 cores
Compute cores	40 or 80
Memory	256 GB per physical node
Storage	SSD System Disk
LAN/WAN	1 GB/s Ethernet with internal switch - upgrades optional
Operating System	CentOS® 7
Queuing System	SLURM
Monitoring	Ganglia
MedeA® Version	2.22



For further information, visit our website www.materialsdesign.com or contact us directly as given below.