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- What kind of hardware should I buy for my MAGMASOFT® simulations?
 - It depends on how many cores your MAGMASOFT® license supports. The more cores your license supports, the faster the simulation. In addition, modern hardware is preferred. It promotes efficient simulations.
- Which CPUs should I buy?
 - The number of CPU cores you buy should be higher than the number of cores your MAGMASOFT® license supports. With several more cores, the simulations run more smoothly. There is no upper limit for the number of cores. However, please pay attention to the price-performance ratio.

– AMD or Intel CPUs?

- MAGMASOFT® does not prefer A to B. Proper simulation performance is promised by both vendors, depending on the CPU clock rate, the number of cores, the cache size, and the number of memory channels.

– How to tune the simulation speed?

- If your license supports only a few cores (up to 4 cores), modern CPUs with high CPU clock rate with large cache are preferred.
- For a large number of cores (more than 16 cores), more memory channels with large caches are preferred.
- Hardware-specific tuning may be required, please contact MAGMA.

FAQ – CPU

- How many CPUs should the machine have?
 - It depends again on how many cores your license supports.
 - #cores < 16: single-CPU system
 - #cores = 32: one- or two-CPU system
 - #cores > 32: two-CPU system

FAQ – Memory

- How much DRAM is required? How to configure the DRAM?
 - The amount of required DRAM depends on your projects. Nowadays, we suggest at least 128 GB – the more, the better.
 - A correct DRAM population is crucial for full-speed simulations:
 - The memory modules, DIMMs, should be of the same size, speed and rank.
 - The number of DIMMs should cover the number of memory channels of your CPUs: at least one DIMM for each channel.
 - Channels are identically populated with either one or two DIMMs.
 - DIMMs should have ECC enabled.

- Which GPU is required?
 - We currently suggest Nvidia RTX A2000 for the basic setting. For advanced performance, you can choose Nvidia RTX A4000, and Nvidia RTX A5000.
- What storage is required?
 - We suggest a normal SATA-HDD (CMR) for MAGMA projects, but faster drives like SSDs are even better.

FAQ – Hardware Settings

BIOS		Operating System	
Flag	Value	Flag	Value
Hyper-Threading	Disable	Linux Power Governor	Performance
NUMA	Enable	Windows Power Plan	High Performance
SNC (Sub NUMA)	Disable		
Prefetcher	Enable		
Power Management	Performance		
P state	Performance/Disable		
C state	Disable		
T state	Disable		