



together we advance\_

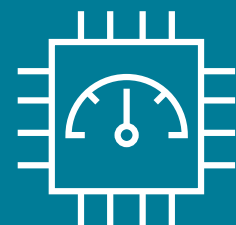
# A GUIDE TO EVALUATING YOUR BUSINESS PC PERFORMANCE

Benchmarking helps you accurately compare business PCs based on factors like clock speed, CPU cores, threads, and RAM.

These data points make sure your people have the computing power to set them up for success.



## DATA POINTS TO MEASURE

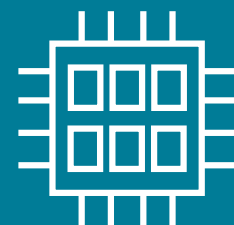


### CLOCK SPEED

**2.7-4.9**

Clock speed estimates how fast your PC processes data and performs calculations. Look for a base speed of 2.7GHz and the ability to boost speed up to 4.9GHz.

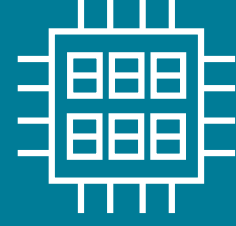
Performance reflects many factors beyond clock speed, so the fastest GHz data may not produce the most muscular PC.



### CORES

**6-12**

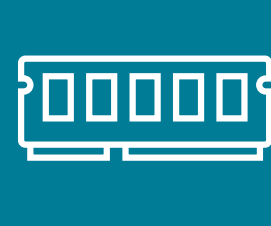
Each CPU core handles a specific application or function, a multi-core processor is more efficient than a single-core processor with the same speed. While modern CPUs may have up to 64 cores, 6-8 cores are sufficient for everyday business laptop users.



### THREADS

**12-16**

Threads let computers do many operations together, like collaborating in a videoconference while operating a spreadsheet. More threads enhance responsiveness, throughput and speed of the process. Look for a 12-16 thread count in business laptop processors for an optimal user experience.



### RAM

**8-16 GB**

RAM is where the data is stored that your CPU needs to run your applications and open your files. The higher the RAM, the more quickly your CPU can complete its work, and the smoother your experience will be.

## BENCHMARKING PC PERFORMANCE

The best way to assess PC performance is to compare specific user scenarios among competing hardware products. Commercial benchmarking tools provide the data.

### CPU

Measure single and multithreaded performance.

#### TOOLS

Cinebench

Geekbench

Passmark

CPU Mark

### SYSTEM

Track system performance with synthetic and application-based benchmarks.

#### TOOLS

Passmark Overall Score

PCMark® 10 Benchmark

SYSmark

### APPLICATION

Check application productivity performance on a test system.

#### TOOLS

PCMark® 10 Applications – Overall

Procyon Office Productivity

### CONTENT CREATION

Assess photo/video editing and 3D rendering performance.

#### TOOLS

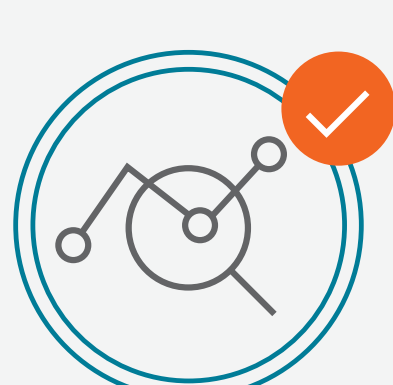
PCMark® 10 Digital Content Creation

Puget Systems

Photoshop

Blender

## BENCHMARKING BEST PRACTICES



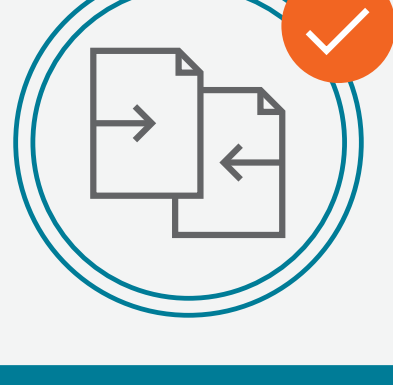
### DO YOUR HOMEWORK

Understand what you need to measure and why each data point matters.



### GET THE BIG PICTURE

Compare multiple data points from multiple software tools when assessing CPUs, systems, applications, and content production.



### COMPARE AVERAGES THE RIGHT WAY

Use the geomean of a large set of data points to reduce the potential for bias in benchmarking.



### PUT USERS FIRST

Measure the real-world PC performance data most relevant to your users' requirements and work habits.



### TEST FOR MULTITASKING

Assess performance when multiple applications run together, like Microsoft Office users on a 9-person Teams call.

For more benchmarking best practices on measuring performance while evaluating processors and PCs for business, check out **AMD Ryzen™ PRO Processors**

