HOW TO PERFORM TEST
ARCGIS PRO
On Nvidia GRID GPUs

Esri UC, July 2017
NVIDIA GRID GPUS
# NVIDIA GPU’S

## GPUs Targeted at Graphics Virtualization

<table>
<thead>
<tr>
<th></th>
<th>M10</th>
<th>M60</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GPU</strong></td>
<td>Quad Mid-level Maxwell</td>
<td>Dual High-end Maxwell</td>
</tr>
<tr>
<td><strong>CUDA Cores</strong></td>
<td>2560 (640 per GPU)</td>
<td>4096 (2048 per GPU)</td>
</tr>
<tr>
<td><strong>Memory Size</strong></td>
<td>32 GB GDDR5 (8 GB per GPU)</td>
<td>16 GB GDDR5 (8GB per GPU)</td>
</tr>
<tr>
<td><strong>H.264 1080p30 streams</strong></td>
<td>28</td>
<td>36</td>
</tr>
<tr>
<td><strong>Max vGPU instances</strong></td>
<td>64</td>
<td>32</td>
</tr>
<tr>
<td><strong>Form Factor</strong></td>
<td>PCIe 3.0 Dual Slot</td>
<td>PCIe 3.0 Dual Slot</td>
</tr>
<tr>
<td><strong>Power</strong></td>
<td>225W</td>
<td>240W / 300W (225W opt)</td>
</tr>
<tr>
<td><strong>Thermal</strong></td>
<td>passive</td>
<td>active / passive</td>
</tr>
</tbody>
</table>

**USER DENSITY**
- Optimized

**PERFORMANCE**
- Optimized
VIRTUALIZATION INNOVATION

Major Areas

USER EXPERIENCE & PERFORMANCE

SCALABILITY

MANAGEMENT & MONITORING

OS & HYPERVISOR PLATFORMS

GPU AND SERVER PLATFORMS

CSP ENABLEMENT
UPGRADING TO WIN10
Higher Graphics Requirement from any Operating System to Date
WINDOWS 10: CPU VERSUS NVIDIA GRID

Avg 34% Increase in Win10 UX Quality

User Experience Scale

5  Outstanding - as good (or almost) as physical
4  Pretty good for a virtual desktop
3  Tolerable, i guess I can make do
2  Barely useable, borderline, but I’ll get tired of this soon
1  Unacceptable, unusable - fire someone in IT!
NVIDIA GRID RESOURCES

GRID Test Drive
www.nvidia.com/trygrid

GRID Website
www.nvidia.com/grid

GRID YouTube Channel
http://tinyurl.com/gridvideos

Questions? Ask on our Forums
https://gridforums.nvidia.com

NVIDIA GRID on LinkedIn
http://linkd.in/QG4A6u

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Performance Testing
ArcGIS Pro
ESRI PERF TOOLS ADD-IN

Tool for Performance Monitoring

New ArcGIS Pro Add-in for Performance Monitoring: PerfTools

by Ian Sims on August 16, 2016

Are you curious to know how long ArcGIS Pro takes to render a particular bookmark or spatial extent, or play an animation? Or have you needed to monitor how long it takes to make a spatial selection from your underlying data?

A new add-in for ArcGIS Pro, PerfTools, can help users capture this pivotal performance information. With PerfTools, a comprehensive scripting capability allows you to edit, run, and log performance scenarios as you make underlying changes to your hardware, virtualization environments, spatial data, or other key user workflows. You’ll soon be able to discover any performance ramifications, make adjustments, and re-run. To get you started, we’ve enclosed several sample scripts with the PerfTools download.

For power users and GIS developers, the scripting language of PerfTools is extensible, allowing you to develop custom commands. Samples and documentation from PerfTools will guide you through the process of adding your custom code and timers.

PerfTools is a free add-in that can run on ArcGIS Pro 1.2 and 1.3. In future blog posts, we will highlight how to use some of its crucial functionality.

Download PerfTools for ArcGIS Pro 1.2 and 1.3

Disclaimer: This add-in is not supported by Esri Support Services; any questions or feedback regarding PerfTools should be forwarded to perftools@esri.com
NVIDIA GRID GPU PROFILER

GPU Utilization

- Useful for exploring different workflows beyond inside of Esri application

- Contrast results from Esri PerfTools Add-in benchmark
Demo