AMD ENDURO™ TECHNOLOGY
Efficiency without the sacrifice

HOW TO USE AMD ENDURO TECHNOLOGY
Beginning with version 13.152.4 of the AMD Catalyst™ driver, you will find new features and adjustments to fine-tune performance and power savings for your applications. While most people are content with the default settings that are already in place, we also give users the ability to customize their settings to cater to their own personal requirements, whether it’s increasing performance or enhancing battery life.

If your notebook is equipped with AMD Enduro technology, you can access it by right-clicking on the Windows desktop and selecting the AMD Catalyst™ Control Center.

Once the AMD Catalyst Control Center is open, you will find a Power section, and under that, select Switchable Graphics Global Settings.

You will find a window that looks like this:

KEY BENEFITS:
- Offers built-in GPU power sensing for improved headroom and performance based on thermal requirements of system.
- Adjusts GPU power based on application performance, giving you the performance you require for light 3D/video applications, and maximizes performance in 3D gaming and compute applications.

HOW TO GUIDE ON MANAGING PERFORMANCE AND BATTERY LIFE ON YOUR AMD-EQUIPPED MOBILE WORKSTATION
It used to be that mobility meant sacrifice. Moving from a desktop to smaller, lighter devices required a drastic downsize in performance, in battery life, or both.

With AMD’s innovations in power technology, you don’t have to compromise anymore. AMD FirePro™ graphics are taking the limitations out of your mobile computing experience with intelligent power technologies that give you the best of both worlds: performance when you need it and power savings when you don’t.

WHAT IS AMD ENDURO™ TECHNOLOGY?
AMD Enduro™ technology regulates your notebook’s GPU to give you an instant boost in graphics performance when you need it and consumes virtually zero watts of power when you don’t. Get great performance out of your battery using AMD FirePro™ professional graphics.

Learn more about AMD FirePro™ graphics for mobile workstations at www.amd.com
In this window, you will find a list of recent applications as well as all applications right below it. You can assign power states (High Performance, Power Saving, or Based on Power Source) to key applications, and customize the way you want apps to run on your system.

• **“High Performance”** will force the application to always run on the performance GPU if “Optimal Power Savings” or “Optimize Performance” is selected in the global options.

• **“Power Saving”** will force the application to always run on the power-saving GPU if “Optimal Power Savings” or “Optimize Performance” is selected in the global options.

• **“Based on Power Source”** will run applications based on whichever option is selected in the global options.

Quick Global Settings Summary:

<table>
<thead>
<tr>
<th>APPLICATION SETTING</th>
<th>DESCRIPTION</th>
</tr>
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<tbody>
<tr>
<td>Force Power Saving Graphics</td>
<td>• Run applications on power saving GPU, regardless of profiles.</td>
</tr>
<tr>
<td>Optimize Power Savings</td>
<td>• Applications “Based on Power Source” run on power-saving GPU.</td>
</tr>
<tr>
<td></td>
<td>• Unknown applications run on power saving GPU.</td>
</tr>
<tr>
<td>Optimize Performance</td>
<td>• Applications “Based on Power Source” run on high-performance GPU.</td>
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<tr>
<td></td>
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</table>

**SELECTING POWER OPTIONS BY APPLICATION**

In the past, whenever users switched to battery mode, the performance of their notebook suffered, as performance was reduced to increase battery life. This may not be too noticeable if the user is working on a word processor or browsing the web; however, if they’re using a demanding application that requires the full rendering performance of the GPU, the performance difference between battery and AC mode can be substantial.

With AMD Enduro technology, users can now change the performance behavior of their notebook at the application level. You can still have the notebook perform on battery mode for regular tasks like checking email or browsing the web, but the minute you open your CAD or M&E application, the full power of the GPU comes to life.
OTHER AMD TECHNOLOGIES THAT HELP YOU SAVE POWER

In addition to AMD Enduro technology, AMD has other technologies that also help you save power and get the most out of your system.

AMD ZEROCORE POWER TECHNOLOGY²

It allows your AMD FirePro™ GPU to consume virtually no power while in idle state and also controls additional GPUs in AMD CrossFire™ technology mode to consume less when it is not in use.

KEY BENEFITS:
- Greater idle power reduction shutting down the GPU.
- Core GPU functional blocks consume 0W while the rest of the PC remains in long idle state.

AMD POWERTUNE TECHNOLOGY²

Intelligently monitors and manages the power draw of your AMD FirePro™ GPU to enable higher clock speeds, which provides improved performance.

KEY BENEFITS:
- Offers built-in GPU power sensing for improved headroom and performance based on thermal requirements of system.
- Adjusts CPU power based on application performance, giving you the performance you require for light 3D/video applications, and maximizes performance in compute applications or 3D rendering.

Learn more about AMD FirePro™ graphics for mobile workstations at www.amd.com

1. AMD Enduro™ technology automatically turns off the discrete GPU for non-intensive applications to help maximize battery life. Application enablement required; implementation varies by application and operating system. Supported by Windows® 7 and Windows 8 Standard and Professional editions; Linux OS supports manual switching between graphics solutions which requires restart of X-Server. Certain video and display features may not be available when the discrete GPU is turned off. Available with select AMD FirePro™ or AMD Radeon™ discrete graphics cards when combined with integrated graphics or APU graphics. Check with your system manufacturer for specific capabilities and supported technologies.

2. AMD PowerTune and AMD ZeroCore Power are technologies offered by certain AMD FirePro™ products, which are designed to intelligently manage GPU power consumption in response to certain GPU load conditions. Not all products feature all technologies – check with your component or system manufacturer for specific model capabilities.

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