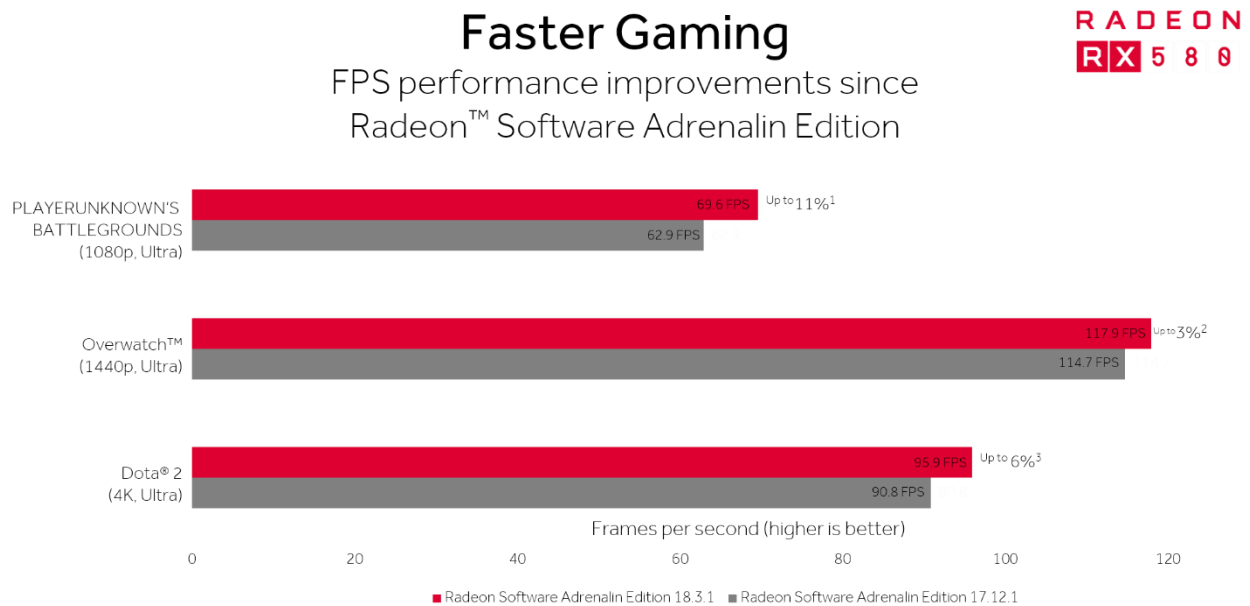


Introducing Project ReSX

In recent months, we kicked off a special project inside of the Radeon Software group known as Project ReSX (Radeon eSports Experience). The goal of this project was to optimize the performance of some of the most popular PC games in the world on Radeon™ GPUs, to ensure the best possible eSports experience for Radeon owners.

We approached this problem from multiple angles. We worked with game developers to suggest internal optimizations for their games, including sending engineers to work on site with the game development houses. Meanwhile, we built optimizations into our drivers to improve performance, as well.

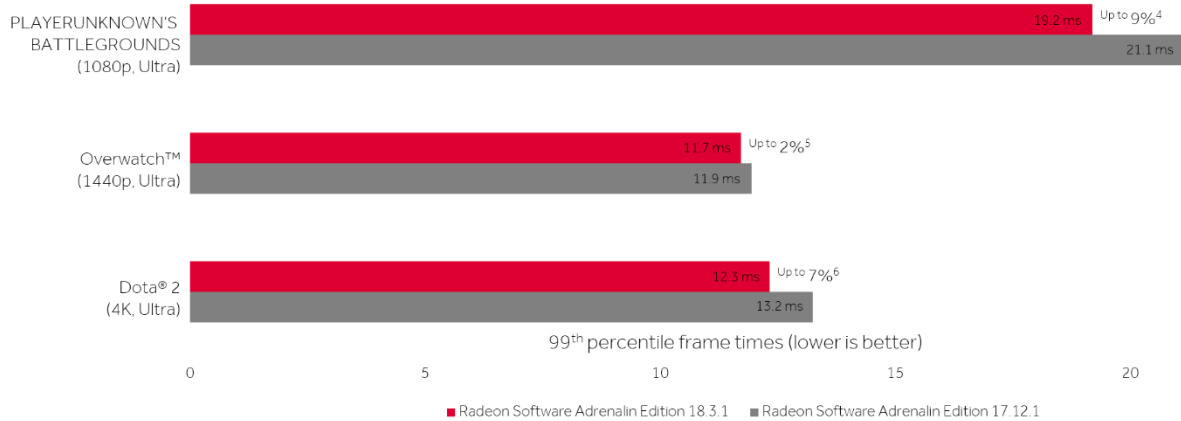
Radeon Software 18.3.1 incorporates a host of changes made possible by Project ReSX. All told, it delivers some notable performance improvements over Radeon Software Adrenalin Edition, released late last year. Although we encourage you to test for yourself, here's a quick look at the improvements in our upcoming software release made possible by Project ReSX.



Project ReSX isn't just about higher benchmark scores, though. Our aim is to improve the experience for Radeon GPU owners by ensuring smooth, consistent gameplay. To see how we're doing there, we looked at the 99th-percentile frame time—sometimes known as the 1% low FPS—to get a sense of how we handle the most difficult frames to render quickly. Here are the results.

Fluid Gaming

99th percentile frame time improvements since
Radeon™ Software Adrenalin Edition

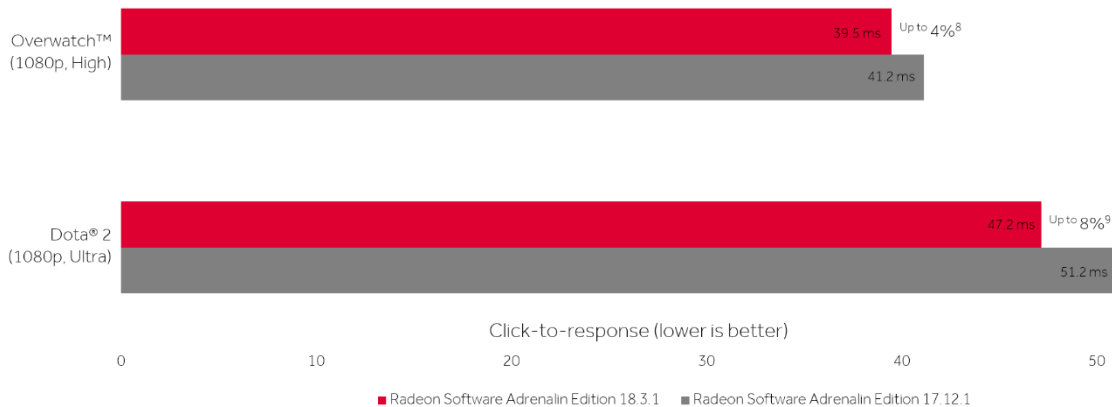


As you can see, Radeon GPUs now handle difficult frames more quickly, offering fluid gameplay in *PLAYERUNKNOWN BATTLEGROUNDS*, *Dota 2*, and *Overwatch*.

Smooth animation is just one component of the gaming experience, though. Another key part of the picture is responsiveness—specifically, the time between a mouse or key click and the on-screen response, which can be the difference between defeat and victory in a fast-twitch game. We've optimized recent Radeon Software releases to minimize input lag, and the results are clear.

More Responsive Gaming

Click-to-response improvements since
Radeon™ Software Adrenalin Edition



The positive results shown above are the product of many hours of hard work from our software and ISV engineering teams in cooperation with some of the world's top game developers. We're happy to see

that work paying off in Radeon Software 18.3.1, and we will continue to push for similar improvements across the newest and most popular PC games.

- 1-8. Testing conducted by AMD Performance Labs as of March 1st, 2018 on the 8GB Radeon RX 580, on a test system comprising of Intel i7 7700K CPU (4.2GHz), 16GB DDR4-3000 Mhz system memory, and Windows 10 x64. PC manufacturers may vary configurations, yielding different results. Performance may vary based on use of latest drivers. PC manufacturers may vary configurations, yielding different results.
- 1- With Ultra settings on PLAYERUNKNOWN'S BATTLEGROUNDS at 1920x1080, the Radeon RX 580 scored 69.6 FPS with Radeon Software 18.3.1 whereas the Radeon RX 580 scored 62.9 FPS with Radeon Software 17.12.1. Comparing FPS between software versions, Radeon Software 18.3.1 has 11% faster performance in PLAYERUNKNOWN'S BATTLEGROUNDS. ^{RS-216}
- 2- With Ultra settings on Overwatch at 2560x1440, the Radeon RX 580 scored 117.9 FPS with Radeon Software 18.3.1 whereas the Radeon RX 580 scored 114.7 FPS with Radeon Software 17.12.1. Comparing FPS between software versions, Radeon Software 18.3.1 has 3% faster performance in Overwatch. ^{RS-217}
- 3- With Ultra settings on Dota 2 at 3840x2160, the Radeon RX 580 scored 95.9 FPS with Radeon Software 18.3.1 whereas the Radeon RX 580 scored 90.8 FPS with Radeon Software 17.12.1. Comparing FPS between software versions, Radeon Software 18.3.1 has 6% faster performance in Dota 2. ^{RS-218}
- 4- With Ultra settings on PLAYERUNKNOWN'S BATTLEGROUNDS at 1920x1080, the Radeon RX 580 scored 19.2 ms 99th percentile frame times with Radeon Software 18.3.1 whereas the Radeon RX 580 scored 21.1 ms with Radeon Software 17.12.1. Comparing 99th percentile frame times between software versions, Radeon Software 18.3.1 has 9% lower 99th percentile frame times in PLAYERUNKNOWN'S BATTLEGROUNDS. ^{RS-219}
- 5- With Ultra settings on Overwatch at 2560x1440, the Radeon RX 580 scored 11.7 ms 99th percentile frame times with Radeon Software 18.3.1 whereas the Radeon RX 580 scored 11.9 ms with Radeon Software 17.12.1. Comparing 99th percentile frame times between software versions, Radeon Software 18.3.1 has 2% lower 99th percentile frame times in Overwatch. ^{RS-220}
- 6- With Ultra settings on Dota 2 at 3840x2160, the Radeon RX 580 scored 12.3 ms 99th percentile frame times with Radeon Software 18.3.1 whereas the Radeon RX 580 scored 13.2 ms with Radeon Software 17.12.1. Comparing 99th percentile frame times between software versions, Radeon Software 18.3.1 has 7% lower 99th percentile frame times in Dota 2. ^{RS-221}
- 7- With High settings on Overwatch at 1920x1080, the Radeon RX 580 scored 39.5 ms click-to-response with Radeon Software 18.3.1 whereas the Radeon RX 580 scored 41.2 ms with Radeon Software 17.12.1. Comparing click-to-response between software versions, Radeon Software 18.3.1 has 4% faster click-to-response in Overwatch. ^{RS-222}
- 8- With Ultra settings on Dota 2 at 1920x1080, the Radeon RX 580 scored 47.2 ms click-to-response with Radeon Software 18.3.1 whereas the Radeon RX 580 scored 51.2 ms with Radeon Software 17.12.1. Comparing click-to-response between software versions, Radeon Software 18.3.1 has 8% faster click-to-response in Dota 2. ^{RS-223}