

Futuremark Inc.

# 3DMark Vantage Driver Approval Policy

*Revision 2*

*Product version: 1.0.1*

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## 1 Driver Approval Process Overview

The Driver Approval process has been established to help the users of 3DMark Vantage to produce accurate, repeatable and comparable results with different hardware configurations. An approved driver version has been tested by Futuremark to test its compatibility with 3DMark Vantage and verify that the test workloads are being run unaltered and as specified. In general, all performance evaluations and comparisons based on 3DMark Vantage results should only be done with data produced with approved driver versions.

## 2 General Driver Approval Guidelines

The following general conditions need to be met by any driver version prior to being considered for approval testing:

1. Only official, public and production quality driver releases by the IHV will be considered for approval.
2. The driver must be WHQL certified for all graphics chipsets that the driver supports or for driver supported chipsets capable of running 3DMark Vantage.
3. OEM specific drivers can be approved if they are based on an approved reference driver by the IHV and otherwise fulfill the guidelines. OEM's are required to inform Futuremark about any such drivers and specifically request their approval.
4. The driver-package must be publicly available for download on the official IHV driver download page by the time the approval is being completed and published.
5. Futuremark aims to process all new driver approval requests within 7 working days.
6. Futuremark will maintain a public list of approved driver versions on its website.

## 3 Driver Optimization Policy for 3DMark Vantage

As a general policy, any and all 3DMark Vantage - specific optimizations in the drivers are prohibited. Additionally, all generic driver optimizations that change the rendering quality or rendering technique requested or specified by 3DMark Vantage are prohibited.

1. It is prohibited for the driver to change the rendering quality level, rendering technique or replace or alter any shaders or other parts of the workload from that what is requested by 3DMark.
2. With the exception of configuring the correct rendering mode on multi-GPU systems, it is prohibited for the driver to detect the launch of 3DMark Vantage executable and to alter, replace or override any quality parameters or parts of the benchmark workload based on the detection. Optimizations in the driver that utilize empirical data of 3DMark Vantage workloads are prohibited.
3. Generic driver optimizations that do not violate the above rules and benefit applications and games in general, are acceptable only if the rendering output is mathematically consistent with that of Microsoft® DirectX® reference rasterizer.
4. The default settings of the benchmark will utilize an AGEIA PhysX PPU hardware if one is available in the system. The utilization of the AGEIA PhysX PPU can be switched off and the result will still be approved as a default result.

5. Based on the specification and design of the CPU tests, GPU make, type or driver version may not have a significant effect on the results of either of the CPU tests as indicated in Section 7.3 of the 3DMark Vantage specification and whitepaper.  
A driver which does not comply with this approval criteria can be approved conditionally if using the “Disable PPU” benchmark option resolves the non-compliance. A notification about the approval condition will be listed on the approved drivers list and using the “Disable PPU” option is required for any result to be considered approved.

## 4 Futuremark Approved Special Case Drivers

The following points are required to be fulfilled by a driver in order for it to be approved by Futuremark for special case events such as a product launch:

1. The driver must comply to the Driver Approval Policy defined in this document, with the following exceptions:
  - a. The driver may be pre-release and is not required to be WHQL certified.
  - b. The driver must be delivered to Futuremark at least 1 week ahead of the desired approval date.
  - c. The Special Case driver-package must be publicly available for download on the IHV’s web site within 7 working-days after the approval.

Note: Any special case approved drivers will be removed from the approved driver list as soon as the next official WHQL driver has been released. Due to the temporary nature of the special case driver approvals, special case approvals will not be listed or acknowledged on Futuremark’s web-services, such as the ORB.

## 5 Cancellation of Driver Approvals

Futuremark reserves the right to cancel and void the approval of any currently approved drivers if the driver is later found not to comply with the Rules and Policies defined in this or later revisions of this document. The change of the approval status will be published on the appropriate driver approval lists on Futuremark’s website.

## 6 Policy Revisions

Futuremark reserves the right to revise the Rules and Policies defined in this document at its discretion.