

Technical Specification for GAMMA-RAY Version 19

1. Operating Systems

GAMMA-RAY version 19 runs solely on the following operating systems:

Name	Major Version	Minor Version
Windows VISTA VISTA 32 Bit / 64 Bit	6	0
Windows 7 32 Bit / 64 Bit	6	1
Windows 8 32 Bit / 64 Bit	6	2
Windows 8.1 32 Bit / 64 Bit	6	3
Windows 10.0 32 Bit / 64 Bit	10	0

Other operating systems, platforms, and variations are not supported.

2. Processors

In principle, GAMMA-RAY version 19 is executable with all Intel-compatible processors.

A speed-optimization of the rendering engine was implemented for following processors (accomplished acceleration of the renderings through optimization approx. factor 3.5 to 4.1):

Manufacturer	Name	CPUID
AMD	AMD K5	50x
AMD	AMD K5	51x
AMD	AMD K5	52x
AMD	AMD K5	53x
AMD	AMD K6	56x
AMD	AMD K6	57x
AMD	AMD K6	58x
AMD	AMD K6	59x
AMD	AMD K6	5Dx
AMD	AMD Athlon	61x
AMD	AMD Athlon	62x
AMD	AMD Duron	63x
AMD	AMD Athlon	64x

Manufacturer	Name	CPUID
AMD	AMD Athlon	65x
AMD	AMD Athlon	66x
AMD	AMD Athlon	67x
AMD	AMD Athlon	68x
AMD	AMD Athlon	69x
AMD	AMD Athlon	6Ax
AMD	AMD Athlon	6Bx
AMD	AMD Athlon	6Cx
AMD	AMD Athlon	6Dx
AMD	AMD Athlon	6Ex
AMD	AMD Athlon	6Fx
AMD	AMD Athlon weitere	5xx
AMD	AMD Athlon weitere	6xx
AMD	AMD Athlon 64	F4x
AMD	AMD Athlon 64	F5x
AMD	AMD Athlon 64	F7x
AMD	AMD Sempron 64	F8x
AMD	AMD Athlon 64	FCx
AMD	AMD Athlon 64	FEx
AMD	AMD Athlon 64	FFx
AMD	AMD Athlon 64	10Fxx
AMD	AMD Athlon 64	20Fxx
AMD	AMD Athlon 64	30Fxx
AMD	AMD Athlon 64	40Fxx
AMD	AMD Athlon 64	50Fxx
AMD	AMD Athlon 64	60Fxx
AMD	AMD Athlon 64	70Fxx
AMD	AMD Athlon 64	C0Fxx
AMD	AMD Athlon 64	100Fxx
AMD	AMD Athlon 64	200Fxx
AMD	AMD Athlon 64	300Fxx
AMD	AMD Athlon 64	500Fxx
AMD	AMD Athlon 64	600Fxx
AMD	AMD Athlon 64	660Fxx

Manufacturer	Name	CPUID
AMD	AMD Athlon 64	810Fxx
AMD	AMD Athlon 64	870Fxx
Intel	Intel Pentium Mod. 2	51x
Intel	Intel Pentium Mod. 2	52x
Intel	Intel Pentium Mod. 3	53x
Intel	Intel Pentium Mod. 4	54x
Intel	Intel Pentium Mod. 8	58x
Intel	Intel Pent.Pro Mod. 1	61x
Intel	Intel PentiumII Mod. 3	63x
Intel	Intel PentiumII Mod. 5	65x
Intel	Intel PentiumII Mod. 6	66x
Intel	Intel PentiumIII Mod. 7	67x
Intel	Intel PentiumIII Mod. 8	68x
Intel	Intel PentiumIII Mod. 9	69x
Intel	Intel PentiumIII Mod. 11	6Bx
Intel	Intel PentiumIII Mod. 14	6Ex
Intel	Intel Pentium weitere	5xx
Intel	Intel Pentium weitere	6xx
Intel	Intel PentiumIV Mod. 0	F0x
Intel	Intel PentiumIV Mod. 1	F1x
Intel	Intel PentiumIV Mod. 2	F2x
Intel	Intel PentiumIV Mod. 3	F3x
Intel	Intel PentiumIV Mod. 4	F4x
Intel	Intel PentiumIV Mod. 6	F6x
Intel	Intel Core 2 Quad	106xx
Intel	Intel Core 2 Quad	150X
Intel	Intel Core 2 Quad	160X
Intel	Intel Core 2 i3/i5/i7	206xx
Intel	Intel Core 2 i3/i5/i7	306xx
Intel	Intel Core 2 i3/i5/i7	406xx
Intel	Intel Core 2 i3/i5/i7	506xx
Intel	Intel Core 2 i3/i5/i7	806xx
Intel	Intel Core 2 i3/i5/i7	906xx

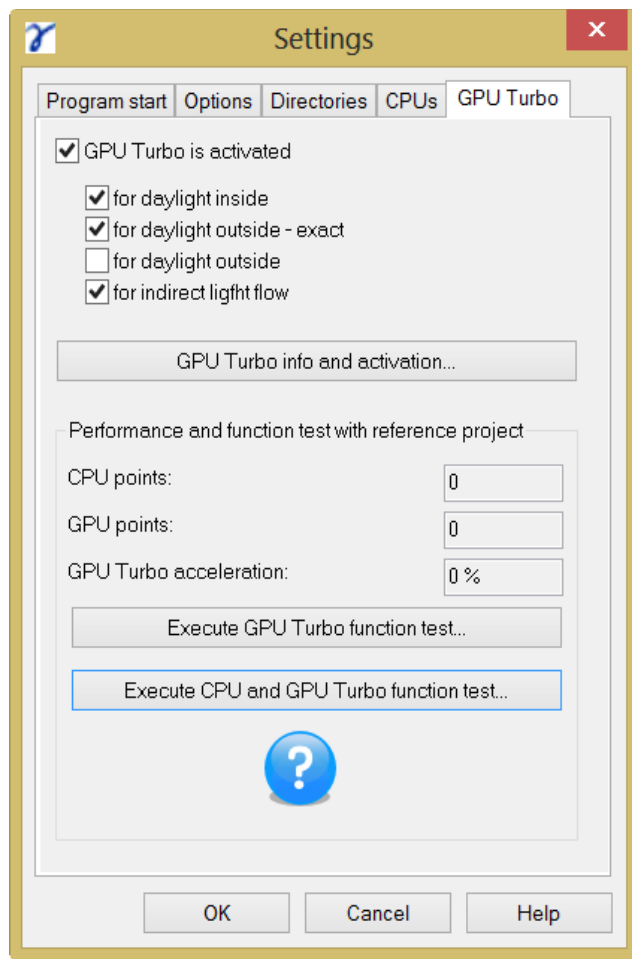
The add-on-modules VR-Machine and Panorama-Player are supported on the same operating systems and CPUs as GAMMA-RAY version 19.

For the additional module **GPU Turbo** you can use the following graphics processors:

Manufacturer	Product Name	Memory
NVIDIA	GeForce GTX, GTS, GT u.a.	>= 1 GB
NVIDIA	Quadro (Mid Range, High End, Ultra High End) Quadro K2000 Quadro K2000D Quadro 4000 Quadro 5000 Quadro K5000 Quadro 6000	>= 2 GB
NVIDIA	Quadro Mobile (17.3" Platform) Quadro 3000M Quadro K3000M Quadro 4000M Quadro K4000M Quadro 5010M Quadro K5000M	>= 2 GB
AMD	AMD Radeon HD	>= 1 GB
AMD	AMD Fire Pro	>= 2 GB

We cannot guarantee that these graphics cards unequivocally support **GPU Turbo**. This is dependent on the respective driver of the manufacturer which is constantly altered.

In order to check whether or not your graphics card is suitable for **GPU Turbo**, you can perform the GPU Turbo functionality test. It can be started in the dialog under **File->Settings->GPU Turbo**.



It is recommendable to install the latest driver for your graphics card after installing GAMMA-RAY Version 19. If **GPU Turbo** works with this driver, you should make a backup of the old driver so that you can re-install it if necessary.