

Product Overview

VirtualLab™ 3.6



Overview of New Features

VirtualLab™ 3.6: New Features

- VirtualLab™ 3.6 supports latest Windows Operating Systems and different license models
- VirtualLab™ 3.6 supports real color representation
- VirtualLab™ x64 3.6 supports 64-bit and multi-core systems

Supported Platform and License Models

Supported Platforms

- VirtualLab™ 3.6 supports
 - Microsoft Vista
 - Microsoft XP , incl. XP x64
- VirtualLab™ 3.6 supports
 - Single License (1 dongle per computer)
 - Network License (1 dongle attached to the server, floating license)
 - Education Licenses in conjunction with a single license

Real Color Representation

Real Color Representation

- The handling of real color images in VirtualLab™ has been improved considerably in Version 3.6 including
 - Import of real color images
 - Visualization of real color images



VirtualLab™ x64

VirtualLab™ x64: Overview

- VirtualLab™ x64 has been developed especially for high performance computing.
- VirtualLab™ x64 requires a 64-bit Windows operating system.
- VirtualLab™ x64 can make use of a multi-core system speeding up designs and simulations by a factor close to the number of cores.
- VirtualLab™ x64 can exploit the entire physical memory allowing higher spatial and spectral resolutions of fields.

VirtualLab™ x64: Features I

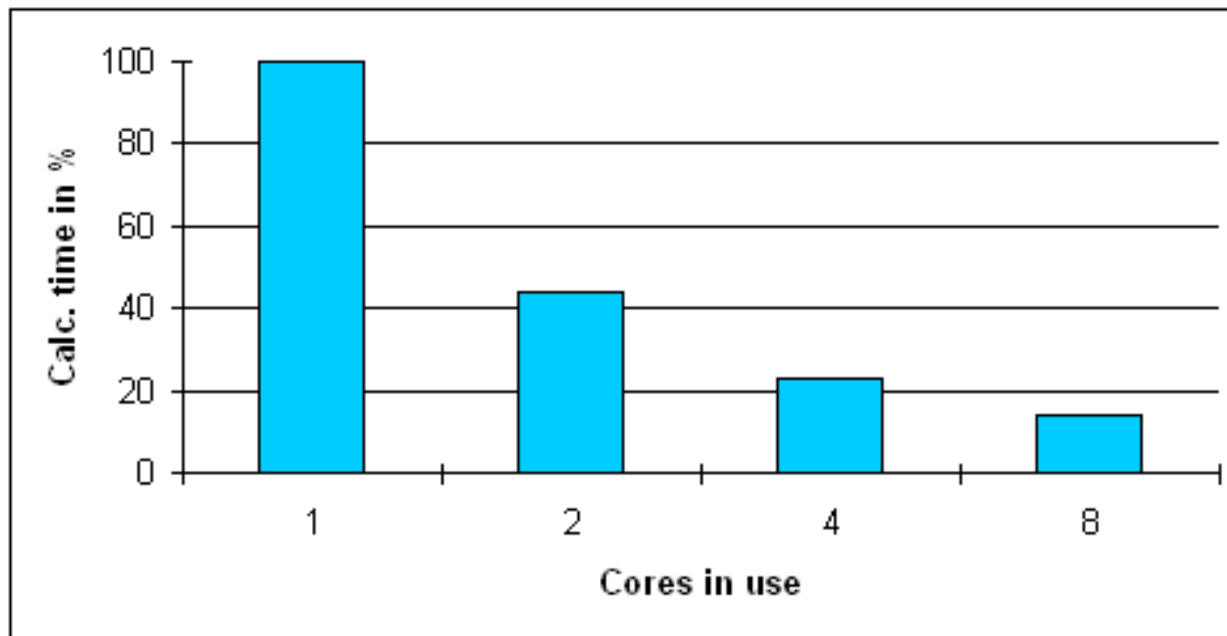
- VirtualLab™ x64 can make use of the full physical memory. In contrast, the 32bit edition is restricted to less than 3 GB.
- VirtualLab™ x64 can handle large design and simulation problems. So 10.000 x 10.000 sampling points do not pose a problem for VirtualLab™ x64.
- Even 30.000 by 30.000 and more sampling points can be handled, depending on the computer being used.

VirtualLab™ x64: Features II

- VirtualLab™ x64 can make use of multi-core systems. In contrast, the 32bit edition does not speed up on multi-core systems.
- In VirtualLab™ x64, design and simulation tasks speed up on multi-core systems. Speed up numbers depend on the specific task and the system being used.
- Typically we expect that the computing time for design tasks drops below $1/3$ on a 4-core system (2 CPU, each dual core) and to about $1/6$ on an 8-core system (2 CPU, each quad-core).

Example: Speed up of Design Tasks

- Comparison of the computation time for a design problem: VirtualLab™ 32bit Edition (100%) and VirtualLab™ x64 using 2,4 and 8 cores (2 CPU, each quad-core).



VirtualLab™ x64: Customized Editions

- Customized Editions may speed up further algorithms and simulation tasks and are offered on request
- Such tasks may include, e.g.,
 - Polychromatic simulations
 - Simulations of multi-mode sources (modeling of LEDs)

Contact

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