

## Applications:

- Simple models used as illustrations, such as models of polyhedra or other mathematical objects
- Models of complex shapes described by triangular tessellations
- Visualization of meshes used in scientific simulations
- Visualization of data produced by simulations
- Visualization of any model that can be described with Kip's large variety of geometrical shapes and logical operators

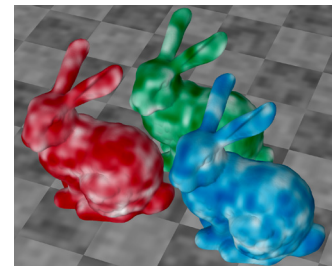
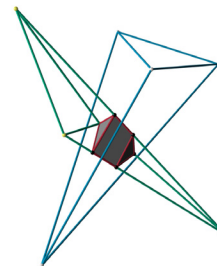
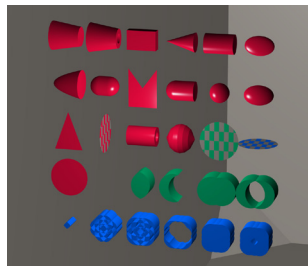
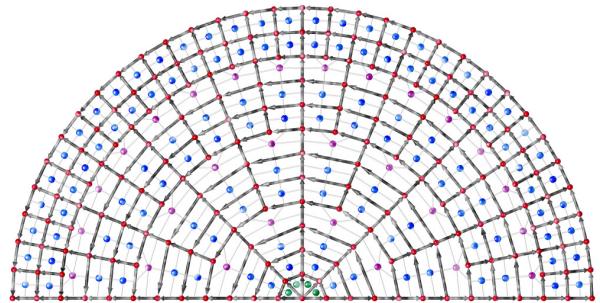
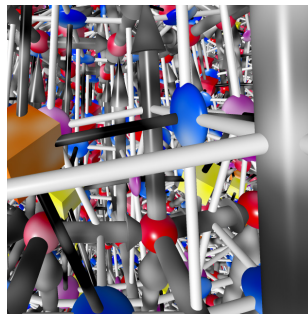
## Benefits:

- Platform independent
- Rapid rendering
- Easy to use API
- Accessible from any C++ code
- Requires no outside libraries

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*Images generated by the Kip Ray Tracer.*

## Summary:

Kip Ray Tracer (Kip) is a high-performance ray tracing library that provides rapid rendering, compact code, and ease of use through an application programming interface (API) that functions independently of any graphical user interface, on-screen display, or other enclosing application. Kip supports constructive solid geometry models based on any of several built-in shapes and logical operators. It also provides a mechanism by which programmers may define additional shapes and operators.

Additional features include basic texturing, input/output of models using a simple, human-readable file format with full error checking and detailed diagnostics, and support for shared data parallelism with OpenMP.

Kip's API compiles into compact efficient code in order to avoid large unwieldy executables. Moreover, Kip's geometrical shapes use very little memory so large numbers of shapes can be used simultaneously.

Users only need a C++ compiler in order to use every feature the library offers, as Kip does not rely on libraries aside from those available in any ANSI Standard C++ implementation. Kip is written in Standard C++, is platform independent, and does not require build systems, configuration or installation scripts, setup wizards, special macro preprocessing, or makefiles.

**Development Stage:** General distribution

**Intellectual Property Status:** Copyright Protected

**Licensing Status:** Available for non-exclusive licensing