How was Wolfenstein 3D made and what were the secrets of its speed? How did id Software manage to turn a machine designed to display static images for word processing and spreadsheet applications into the best gaming platform in the world, capable of running games at seventy frames per second? If you have ever asked yourself these questions, Game Engine Black Book is for you.

This is an engineering book. You will not find much prose in here (the author's English is broken anyway.) Instead, this book has only a bit of text and plenty of drawings attempting to describe in great detail the Wolfenstein 3D game engine and its hardware, the IBM PC with an Intel 386 CPU and a VGA graphics card.

Game Engine Black Book details techniques such as raycasting, compiled scalers, self-modifying code, deferred rendition, pulse width modulation, linear-feedback shift registers, fixed-point arithmetic, runtime generated code, VGA Mode Y, and many other tricks. Open up to discover the architecture of the software which pioneered the first person shooter genre.

## i386

## GAME ENGINE BLACK BOOK

## WOLFENSTEIN 3D

WOLFENSTEIN 3D

**FABIEN SANGLARD** 

**v2.2**