

GAME ENGINE BLACK BOOK

COMMANDER KEEN

BAS SMITS

v1.0

IBM PC

COMMANDER KEEN

Commander Keen was the first smooth-scrolling platform game on the IBM PC. But how did Ideas from the Deep — the team that later became id Software — manage to turn a machine designed for static word processing and spreadsheets into something resembling a Nintendo Entertainment System? If you've ever wondered that, this book is for you.

This is a software engineering book written by someone who witnessed the rise of the PC as a dominant gaming platform. The book takes you back to IBM PC in the early nineties. It attempts to describe in great detail the Commander Keen game engine and its hardware, the IBM PC with a EGA graphic card. The book contains plenty of drawings to explain techniques such as adaptive tile refresh, virtual screen tile refresh, mixed model programming, keyboard scan codes, bit shift tables, compression methods like Huffman and RLEW, and many other tricks.

To fully enjoy this book, a basic understanding of the C programming language and x86 assembly is recommended. Open it up and discover what it was like to write groundbreaking PC games in the early nineties.