The Apollo Guidance Computer: Architecture and Operation

Chapter 0: The state of the art

From whence we came: early computing
Outside the computer room: early computing in aviation and space
Computing in manned spacecraft
Defining computer "power"
The evolution of computing
Technology acquisition: consumers vs the aerospace industry

Chapter 1: The AGC hardware

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Overview of Chapter 1
Physical characteristics of the AGC
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Double precision numbers
FIGMENT
Instructions: the basic units of computer operation
Memory management
A tour of low core and the central registers
Keeping time in the AGC: timers and clocks
Counters - CDUS (X, Y, Z, OPTS, OPTT) and PIPAS (X, Y, Z)
Radar, engine and crew interfaces
Memory addressing and banking in the AGC
Interrupt processing
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Communicating with the outside world: the I/O system

Chapter 2: The Executive and Interpreter

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The Executive
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Chapter 4: Mission programs and operations

Chapter 5: Epilogue