GALILEO

(Turbo Nutter)
(Risc PC II)

Request to proceed to feasibility

19 July 1994

[redacted]

Product Marketing

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What is Galileo?

- A major technology project
- Produces a new hardware and software architecture
- Produces a product line analogous to Risc PC
- Provides technology to produce

  "Baby Nutter"
  Operating system, compilers and user interfaces for OM

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Why?

- Existing Risc OS/uniprocessor designs cannot compete
- Generates revenue from a market we understand (enthusiasts)
- Provides a way forward for the faithful
- Is exciting/motivating work for Acorn Technical Division/Acorn
- Harness ARM strengths (MIPS/Dollar)
- Provides a focus for technologies that Acorn needs to work on, if it wants to be in R + D

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What components does it use?

Hardware

- A mega video controller
  1600 x 1200 x 32 bit colour
  (3 x 0.6m VIDC20 or another design)

  - A scalable bank of processors
    - 4 slots
    - each slot takes upto 8 ARM processors
      or 4 Power PC or 2 Pentiums

  - A Risc PC style case
    i.e. modular

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Hardware/continued

- A PCI internal bus for cheap high-performance peripherals
- PCI expansion card support
- A high-performance sound system
- An ARM 800 soldered down to boot the system
- A raid IDE disc system

Software

- TAOS
  - pre-emptive, multitasking heterogeneous, asymmetrical, multiprocessor, micro kernel

- A 3D interface
  - "ROOMS" concept
  - 3D objects -drawn/rendered, processed in real time
  - dispatchers for 2D interfaces
    - Risc OS
    - Windows
    - Unix

Software/continued

- A toolkit
  - 'C' Compiler
  - C++ Compiler
  - Debuggers
  - 3D primitives support

- File systems - remapped/supported
  - DOS
  - Windows NT
  - UNIX
  - Risc OS

When

• Sign Heads of Agreement TAOS by	31. 8.94
• Commission Simtec to produce ARM multiprocessor Risc PC Card	31. 9.94
• Announce strategy at Acorn World with first demo's	31.10.94
• Show multiprocessor/ROOMS demo at BETT	31. 1.95
• Ship first end user toolkit	31. 1.95
• Show beta O/S Acorn World '95 Show first Galileo hardware	31.10.95
• Show final hardware spec BETT '96	31. 1.96
• Ship first customer samples	1. 4.96

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