Evaluating TriMedia

## Decision support

BORES Signal Processing

Benefits

This seminar is intended for decision-makers who wish to make a proper and well-informed evaluation of TriMedia for particular projects.

The Philips pnx1300 and pnx1500 are powerful processors capable of supporting large and complex multimedia applications. To lean enough to make a proper evaluation can take a lot of time.

In just one day we explain and clarifywhat TriMedia is and how it works, so that you can make well-informed decisions quickly and with confidence.

Lots to think about?
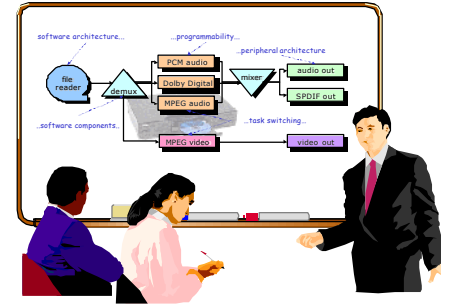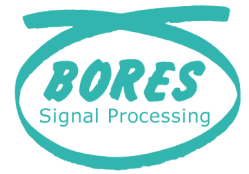
We put it in context

Contents

This seminar explains the TriMedia processor core, peripherals and software architecture in the context of evaluation of this technology. It is designed to clarify how the elements of a TriMedia system work together and why they are designed that way. We look into the background to the architectural and system-level choices that were made in developing the TriMedia product, so that these insights can be applied to its evaluation for use in particular projects.

Evaluation in context

We explain how the background to TriMedia's design is driven by the desire for performance in certain applications, and show how the resulting design choices relate to performance in particular new projects.

- System architecture
- TriMedia system
- Characteristics of media processing
- Architectural choices in media processing
- Matching resources to application needs
- TriMedia core architecture
- Compiler tools
- Peripheral architecture
- Software Architecture
- Integrated Appliance Developer's Kit

Software Architecture

- Software Architecture
- Software Architecture layers
- Operating (Component) Layer
- Software Components
- component configuration
- component connection
- Data Packets
- Data formats
- Integrated Appliance Developer's Kit
- pSOS+ operating system
- Software Development Environment

Application examples

- IADK example - video encode and decode
- DV decoder (digital video camera)
- MPEG-2 decoding
- MPEG-2 transport stream
- "MPEG-4 decoding
- "Audio / video synchronization

Peripheral Architecture

- Peripheral architecture
- Peripheral MMIO registers
- Software Architecture - devices
- Device library layer
- Board Support Library
- Peripheral configuration
- pnx1300 Peripherals
- pnx1500 peripherals
- Video input and output
- Image Co-Processor (pnx1300)
- Memory Based Scaler (pnx1500)
- Audio input and output
- PCI and XIO bus
- General Purpose I/O (pnx1500)

CPU core architecture

- TriMedia CPU core architecture
- Superscalar and VLIW scheduling
- TriMedia core functional units
- Instruction set design
- Compilation tools
- TriMedia cache architecture
- Debugging and simulation
- Optimisation
- Profiling
- Profile driven optimisation
- Single Instruction Multiple Data ("SIMD)
- Custom operations
- SIMD operation FIR example

Time and arrangements

This 1-day seminar is presented 'on-site' by arrangement - the material can be adapted if you have specific needs (at extra cost). It is designed as an introduction for all members of an inter-disciplinary team. For programmers who will be working in-depth with TriMedia we recommend the alternative 4-day 'TriMedia foundation' seminar series which gives a more complete and thorough grounding in TriMedia core, cache, and peripheral architectures as well as in optimization.

- on-site by arrangement
- travel and accom charged at cost

Evaluating TriMedia

- 1-day seminar presentation
- £4,000 (€6,400, $8,000)
- arrangements as above

TriMedia 'foundation' series

- 4-day seminar series
- £1,320 (€2,200: $2,640) per person
- arrangements as above

To book or find out more

Call us by 'phone or send email to book or to ask questions.

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