



## **IO - New digital buses**

**This 1-day seminar aims to describe and compare new digital interconnect standards**

### **Objectives**

- Packet switching benefits compared to shared busses are highlighted.
- The course details the operation of new busses and the consequences on system architecture.
- This workshop has been designed for project managers who intend to understand the operation of new buses without fully describing their protocol.
- Many references to exerciser providers and component manufacturers are done in order to explain not only the features of new buses but also their ecosystem.
- Ac6-training offers trainings covering in depth buses such as PCI-X, PCI-Express, RapidIO, IEEE1394a/b, USB2.0, HyperTransport, VME VXS.

*A more detailed course description is available on request at [info@ac6-training.com](mailto:info@ac6-training.com)*

### **Prerequisites**

- Experience of a digital bus like PCI or VME is recommended.

### **Plan**

#### **TRANSITIONNING FROM SHARED BUSES TO POINT-TO-POINT BUSES**

- Limitations of the PCI
- Parallel vs serial transfers
- Differential mode
- Packet switching
- Convergence to a common physical layer

#### **ENHANCEMENTS OF EXISTING BUSES**

- Intel Hub Link solution
- PCI-X
- VME Renaissance : 2eVME + 2eSST

#### **NEW COMPONENT INTERCONNECT BUSES**

- Hypertransport
- Parallel RapidIO

- PCI Express

## NEW CALCULATORS INTERCONNECT BUSES

- Infiniband
- Gigabit Ethernet
- Serial RapidIO

## NEW BUSES ENABLING CONNECTION TO REMOTE PERIPHERALS

- S-ATA
- IEEE1394b
- USB2.0, USB3.0
- Serial FPDP

## Summary

- Detailed comparison between Gigabit Ethernet, Serial RapidIO and PCI Express
- Various criterions are studied in order to clearly indicate the benefits and the disadvantages of these high speed interconnects

## Renseignements pratiques

**Durée : 1 jours**  
**Prix : 700 € HT**

