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## NEW DIGITAL BUSES

Ref : 003280A

Duration : 1 day

### OBJECTIVES

- Packet switching benefits compared to shared buses are highlighted
- The course details the operation of new buses and the consequences on system architecture
- This workshop has been designed for project managers that 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

**Contents of the training must be selected from the list of topics below**

### RELATED COURSES

- MVD offers trainings covering in depth particular buses like PCI, PCI-Express, RapidIO, IEEE1394a/b, USB2.0, USB 3.0, HyperTransport, Ethernet, CAN, Flexray
  - Don't hesitate to look : <http://www.mvd-fpga.com/fr/formationsBUS.html>

### Contact

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**Course only available on-site**

**Next sessions, see : <http://www.mvd-fpga.com/en/formationsCalend.html>**

### TOPICS

#### 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

#### NEW COMPONENT INTERCONNECT BUSES

- Hypertransport
- Parallel RapidIO
- PCI Express Gen1, Gen2 and Gen3

#### NEW CALCULATORS INTERCONNECT BUSES

- Gigabit Ethernet
- Serial RapidIO

#### NEW BUSES ENABLING CONNECTION TO REMOTE PERIPHERALS

- USB2.0 and the new USB3.0
- IEEE1394 a/b

#### WIRELESS SOLUTIONS

- Bluetooth
- Zigbee
- Wifi

#### HIGH INTEGRITY BUSES

- CAN
- Flexray

### DOCUMENTATION

- Training manuals will be given to attendees during training in print.