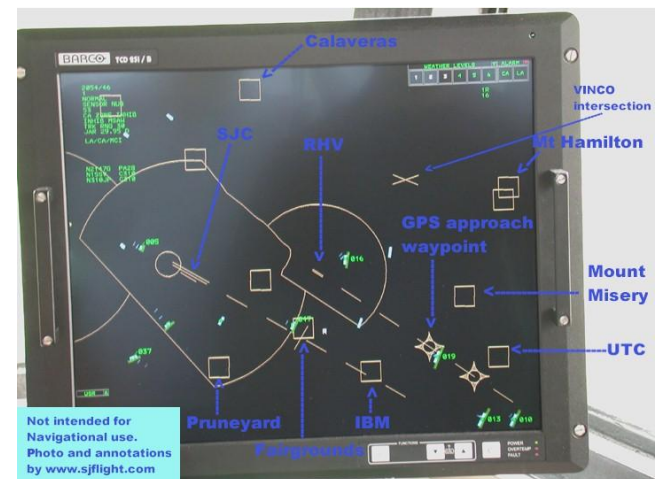
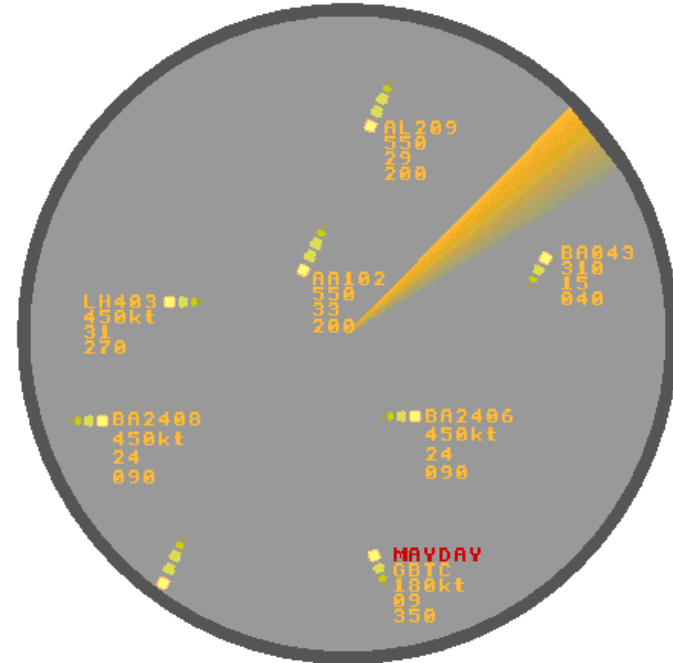
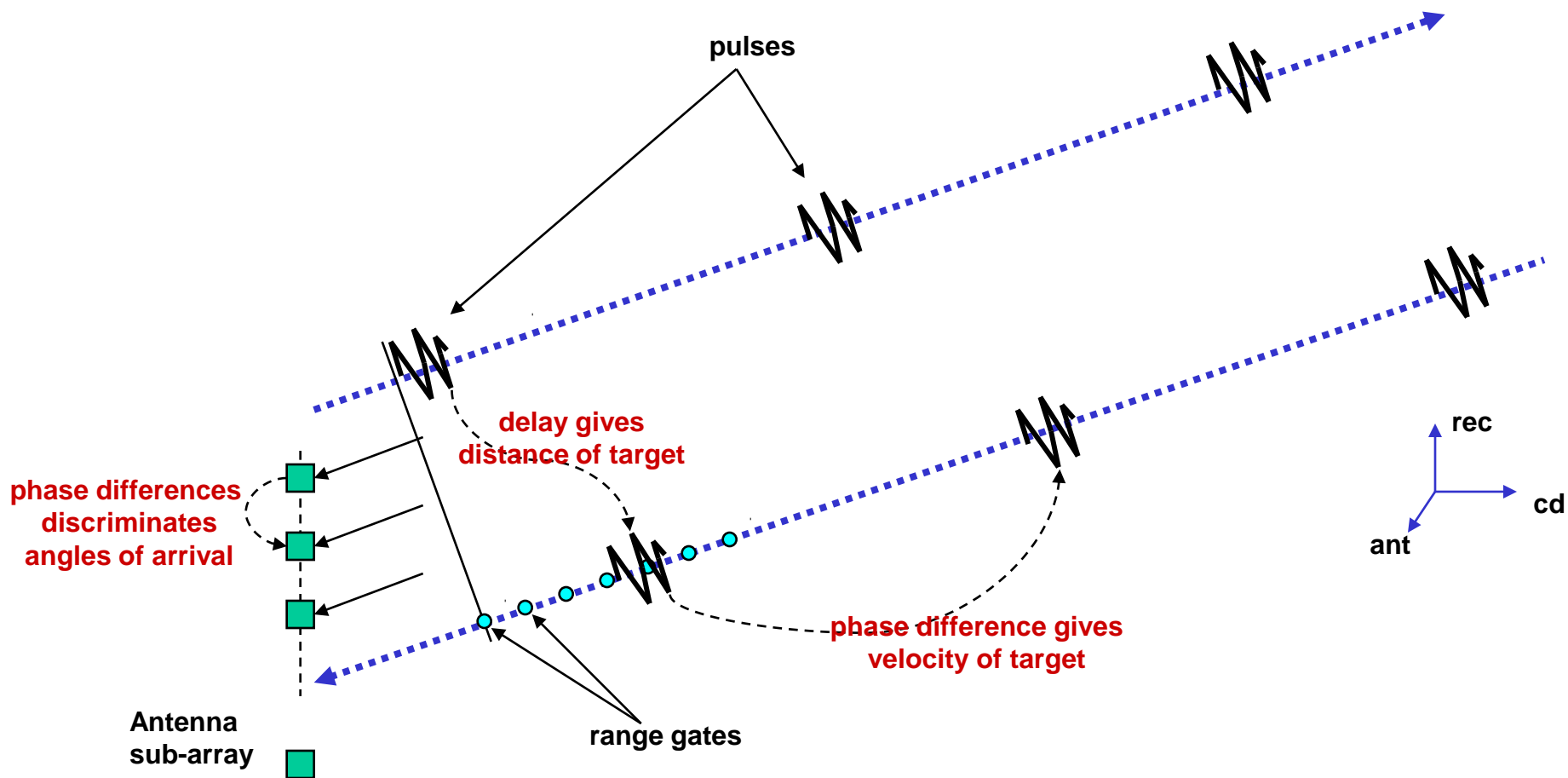


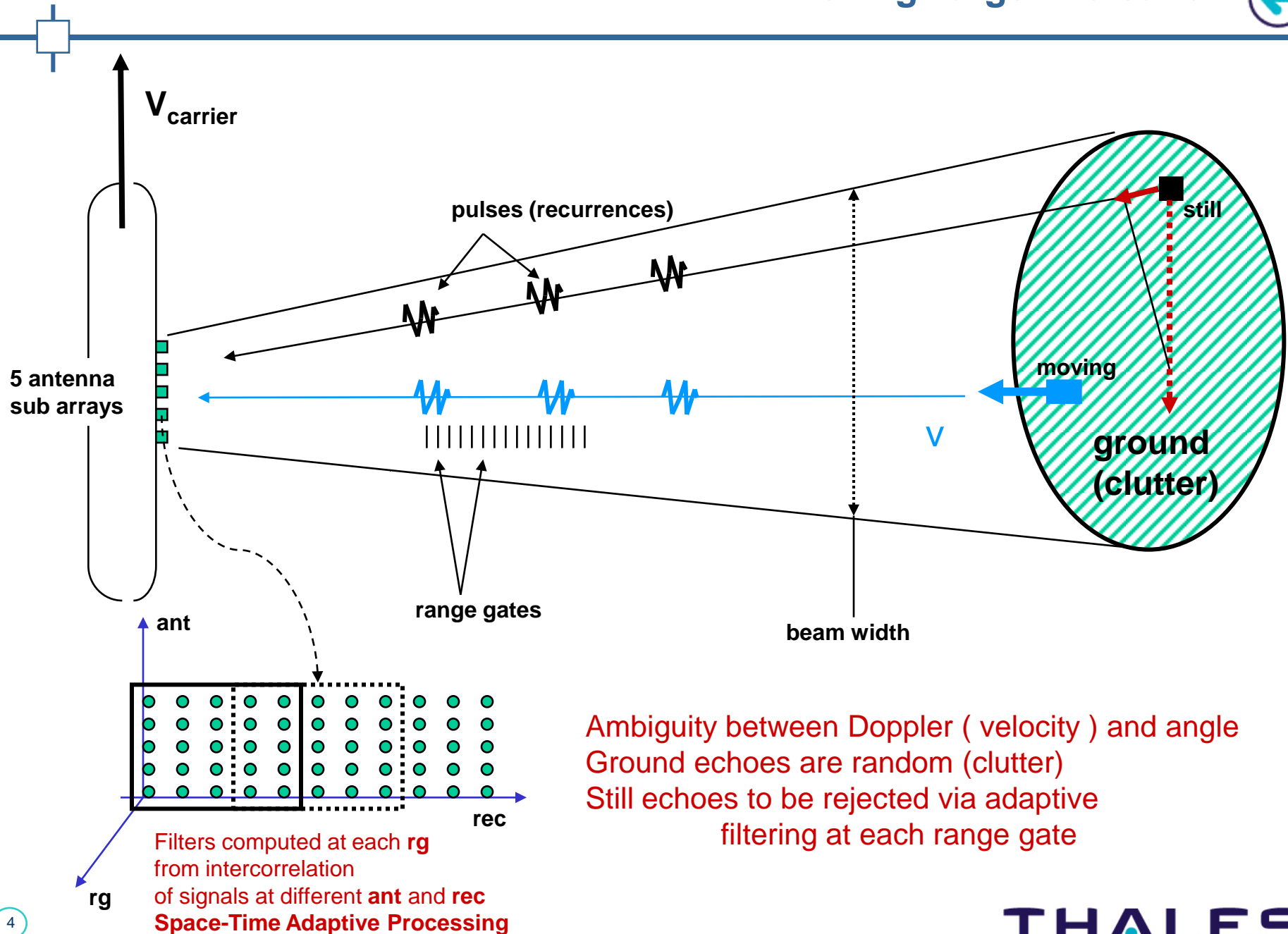


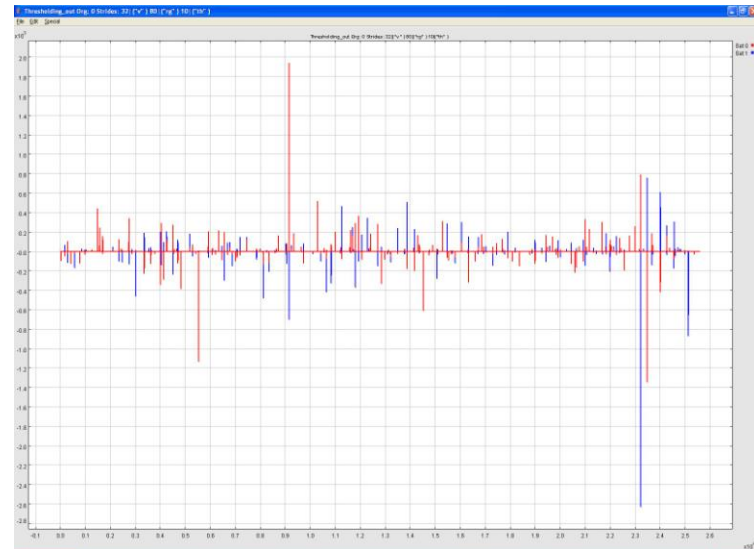
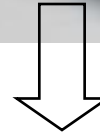
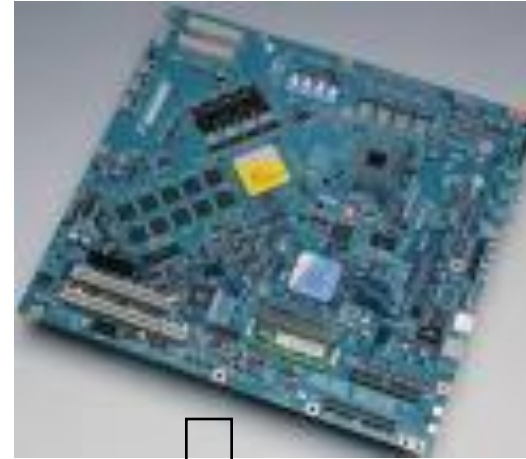
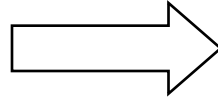
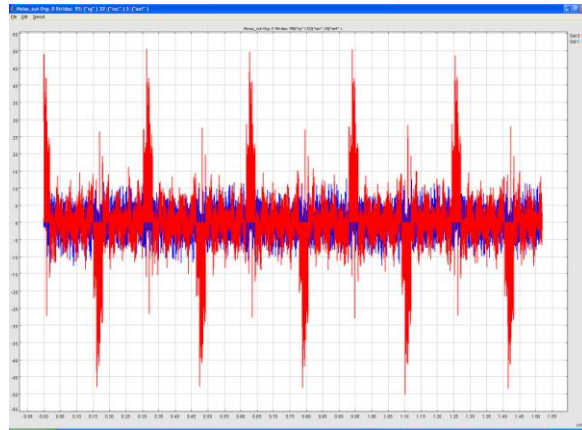
## ➔ Designing a signal processing Application on multi-core architecture with MARTE

L. Rioux











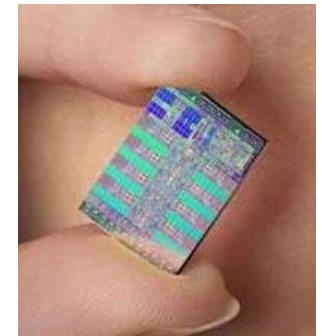
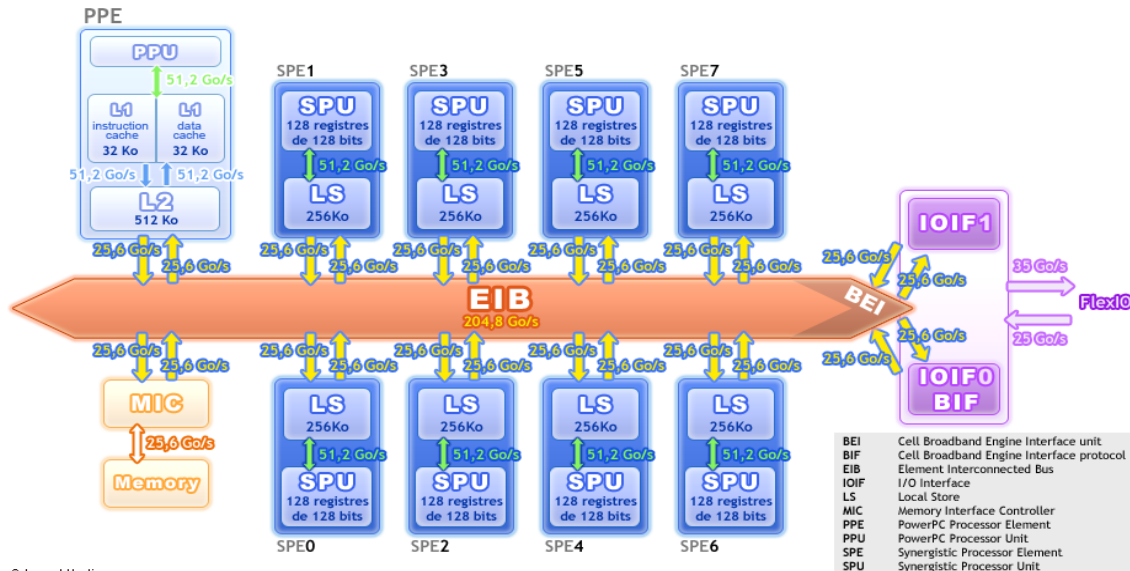
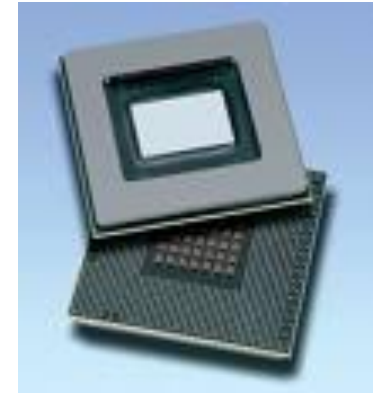
## MARTE: Model the Multi-Core Processor

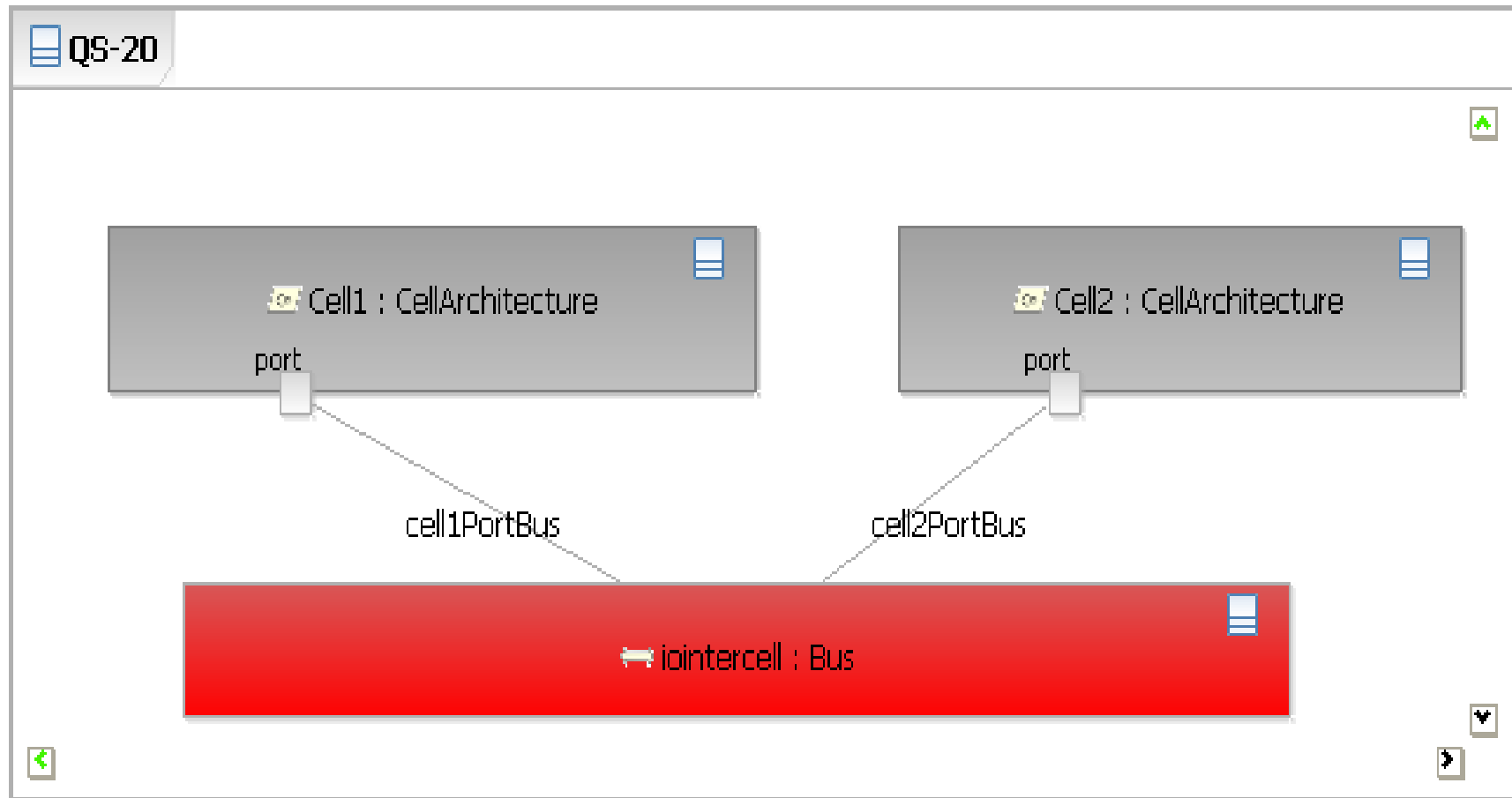
The IBM CELL processor



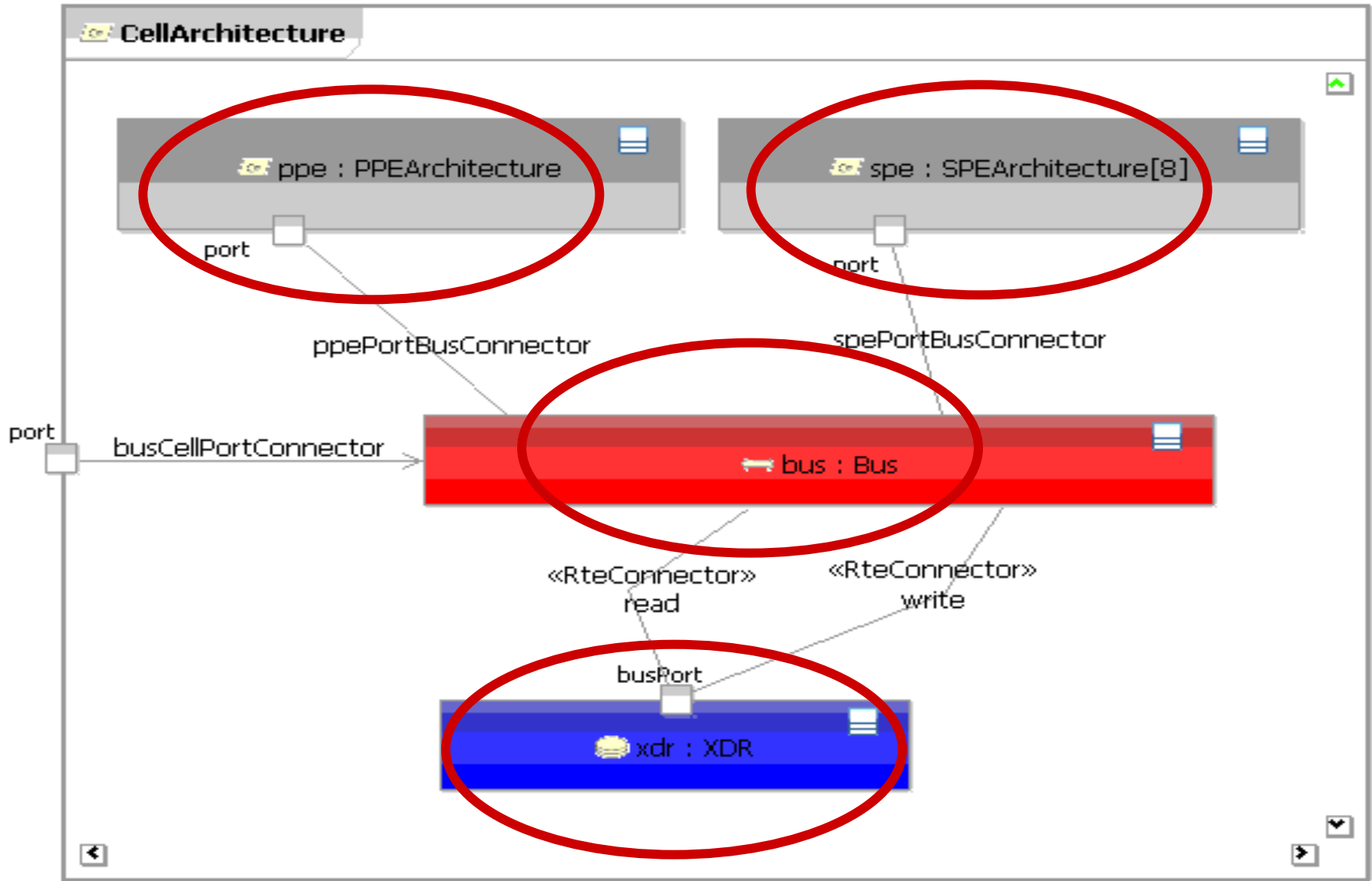


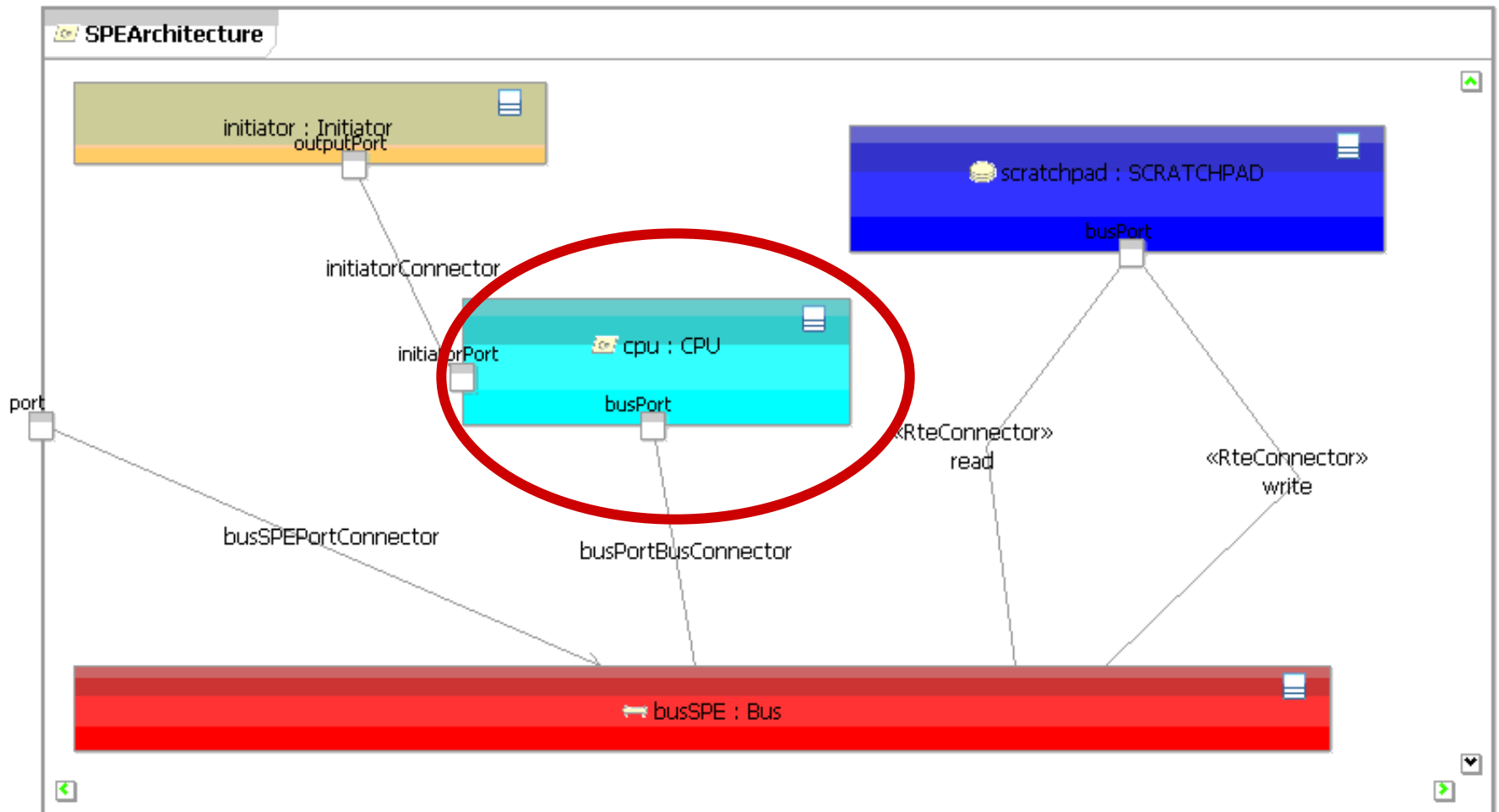
- Processor Multi-Core: 8 core
- Developed by Sony, Toshiba and IBM
- 128 bits processors at 3.2 GHz

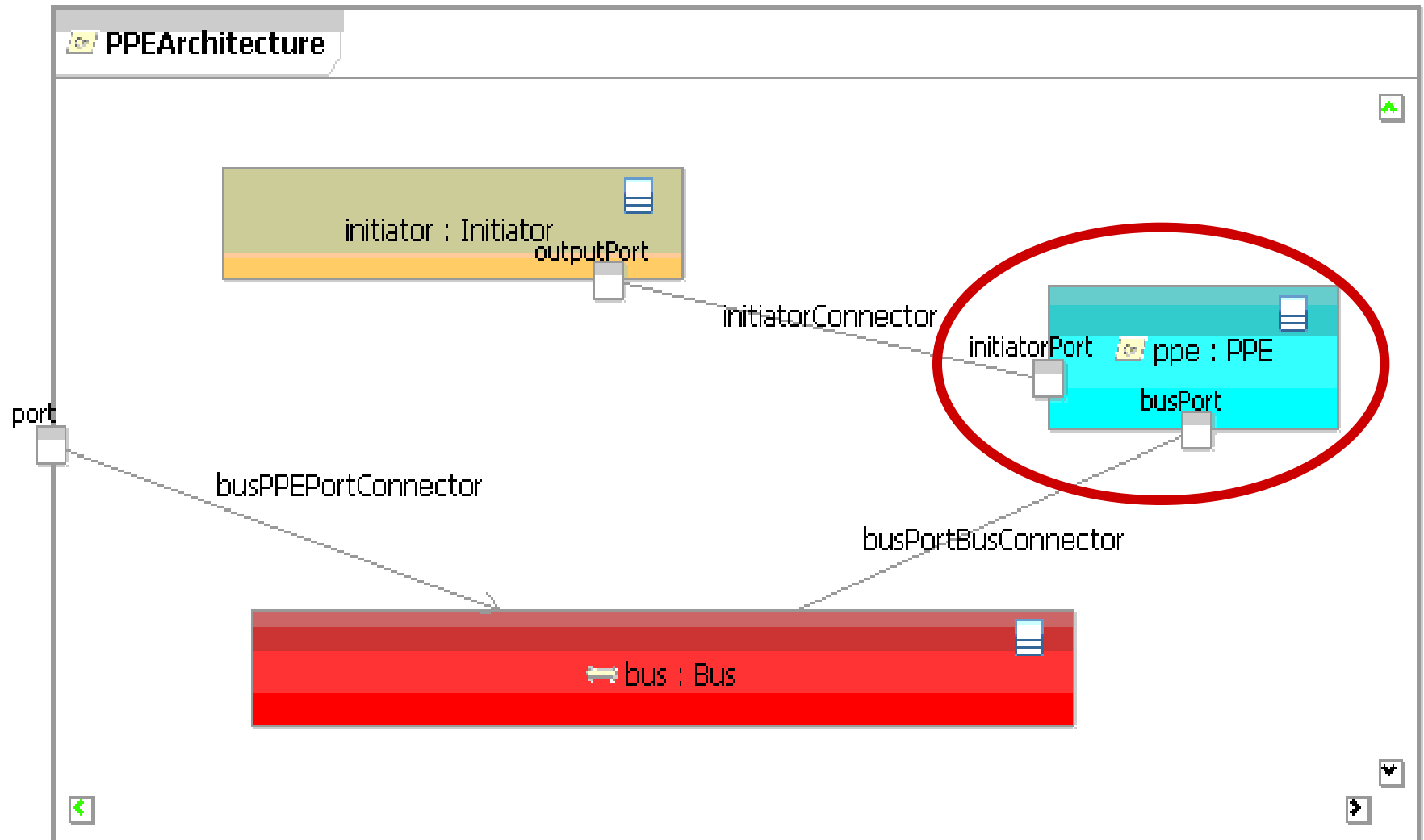






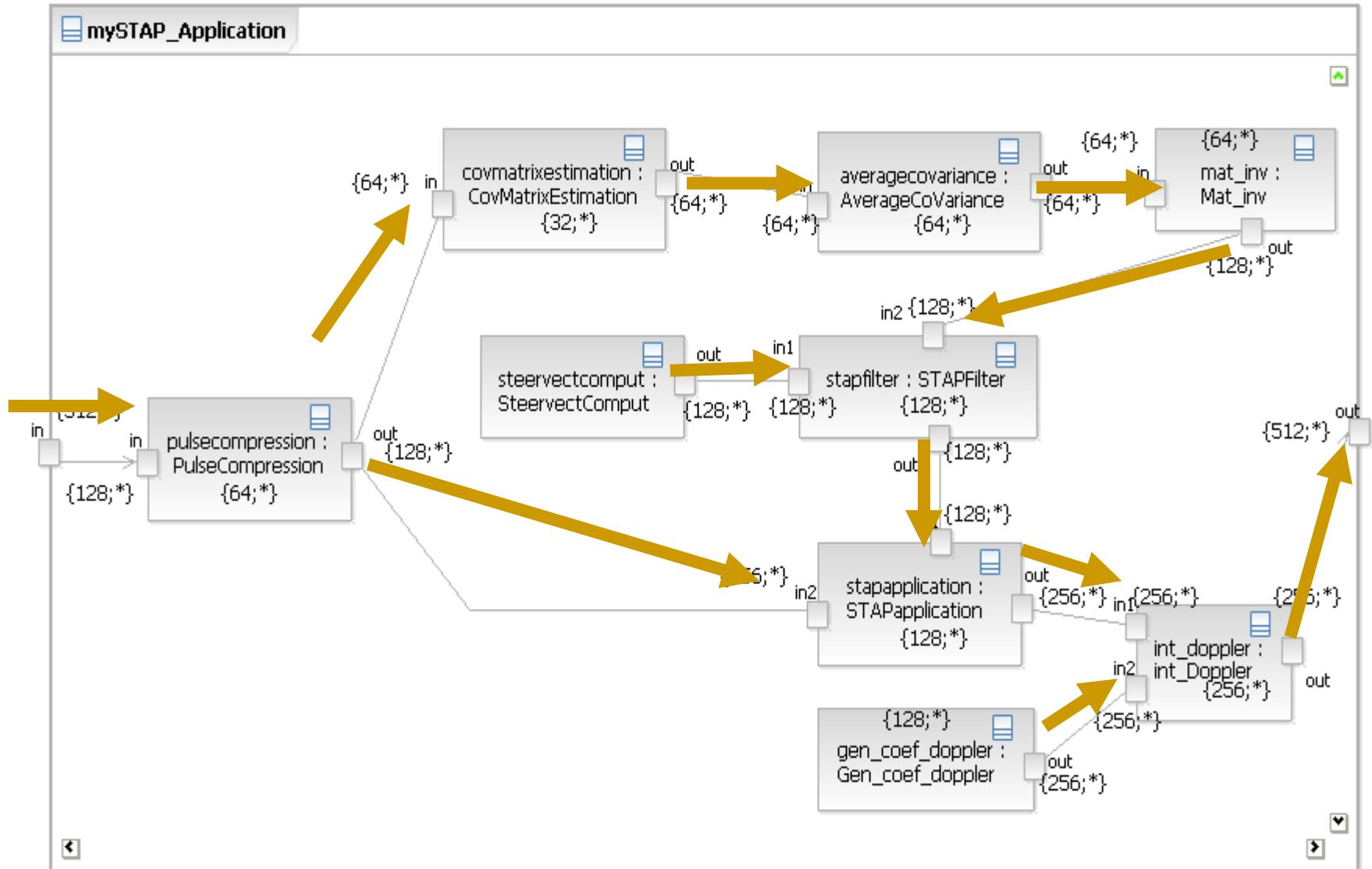


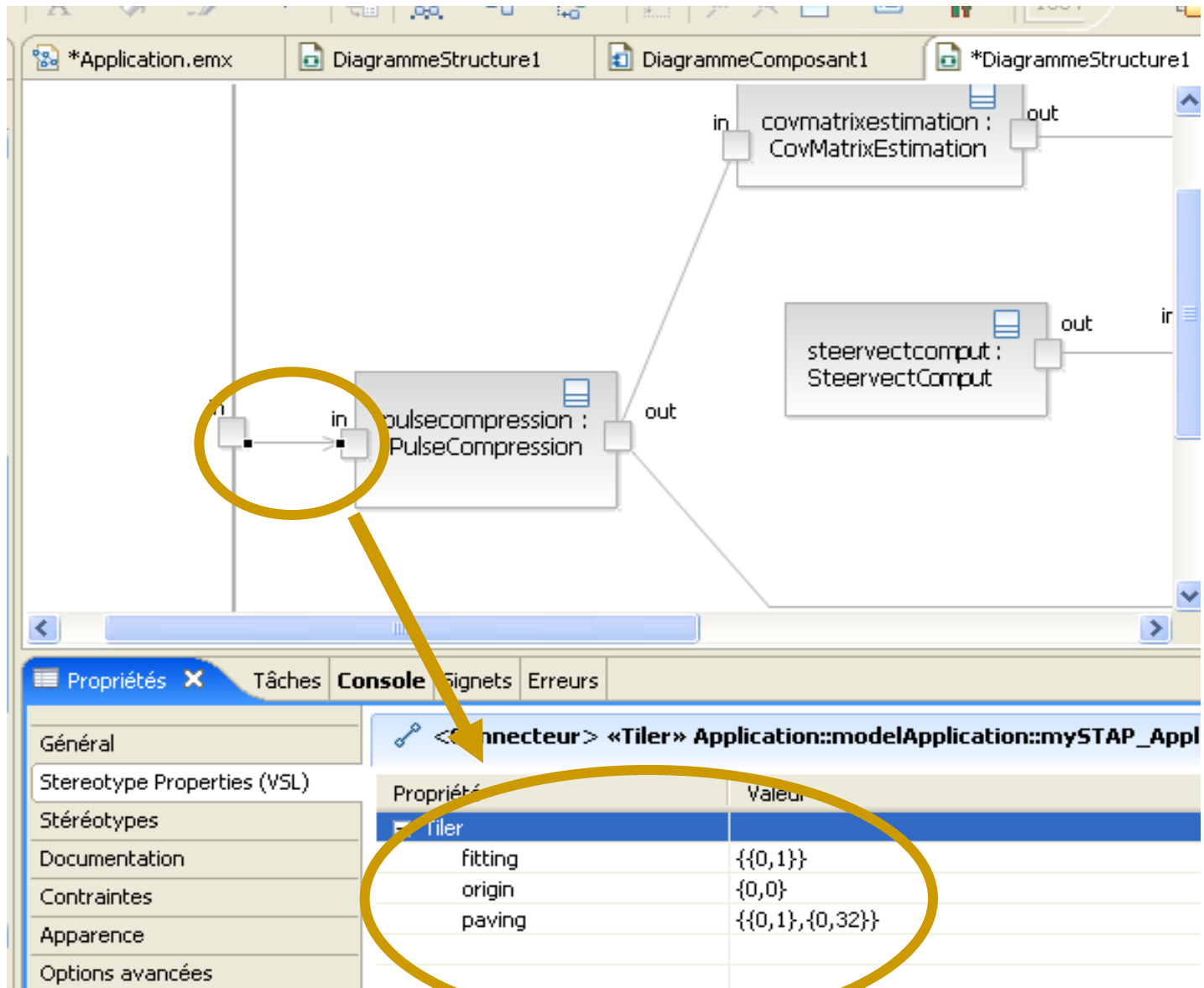


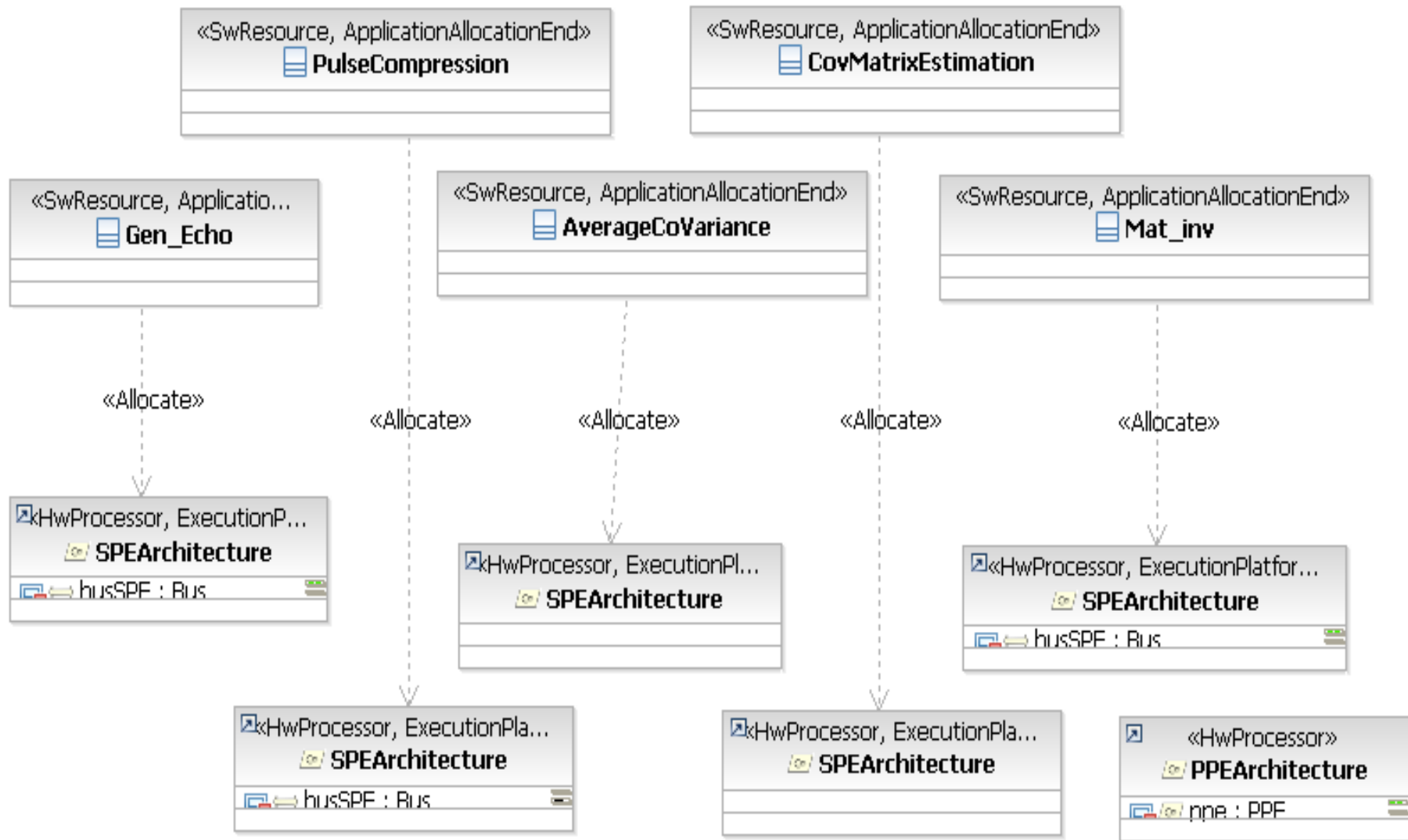




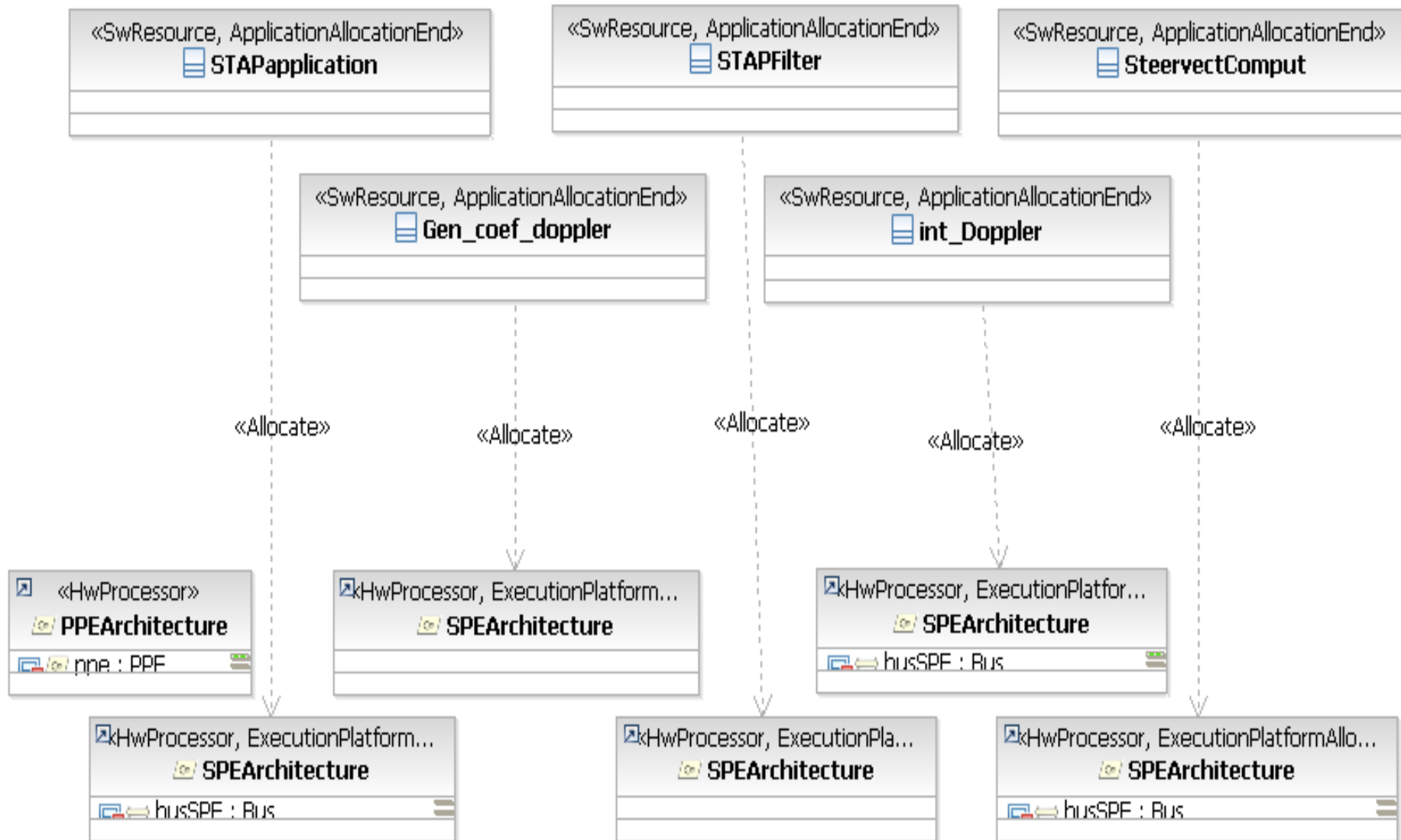
## Modeling the Signal Processing Application













## **MARTE can be used :**

- ▶ to design Signal Processing application
- ▶ To model multi-core processors
- ▶ To do allocation of application on hardware
- ▶ Validate the scheduling (something under experimentation)
  - ▶ Scheduling analysis to validate the allocation

## **MARTE is also interesting for massive data processing**

- ▶ With repetitive structure (MARTE Tilers)

## **Generate code from this model (C++/C)**