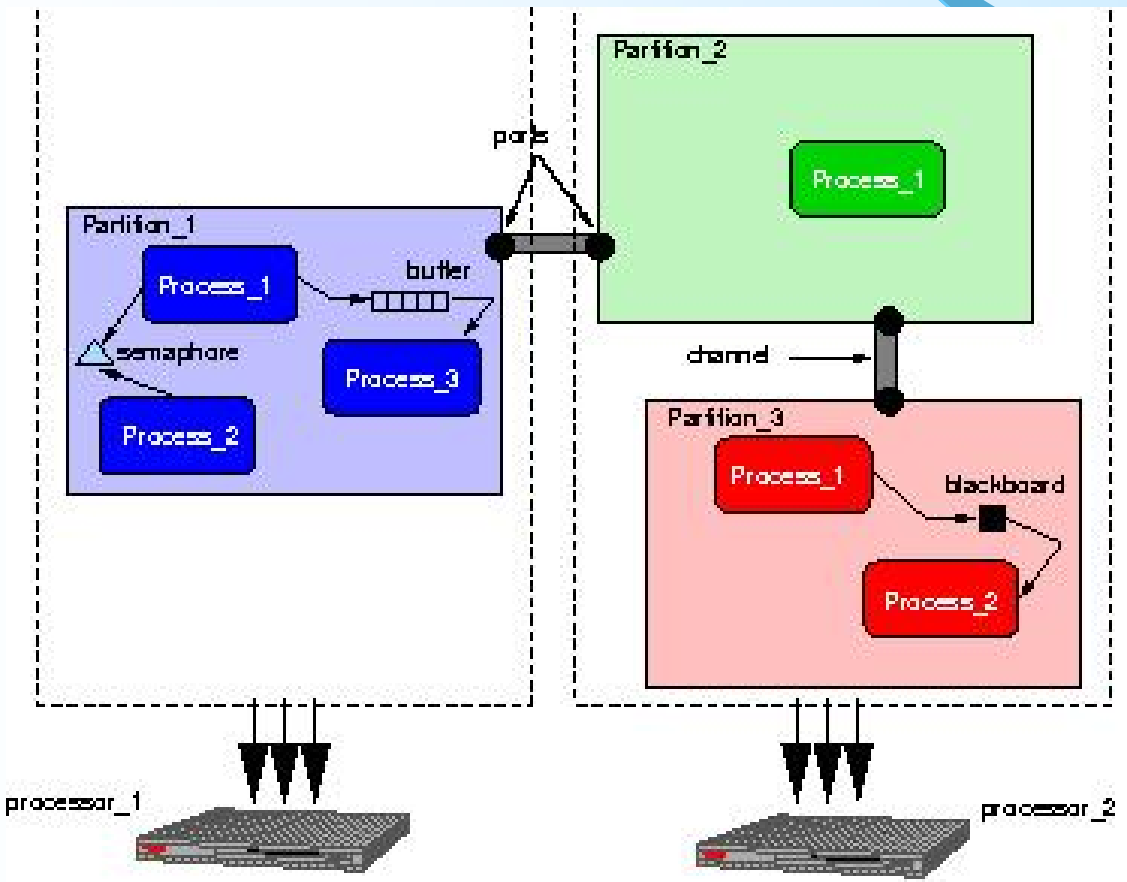
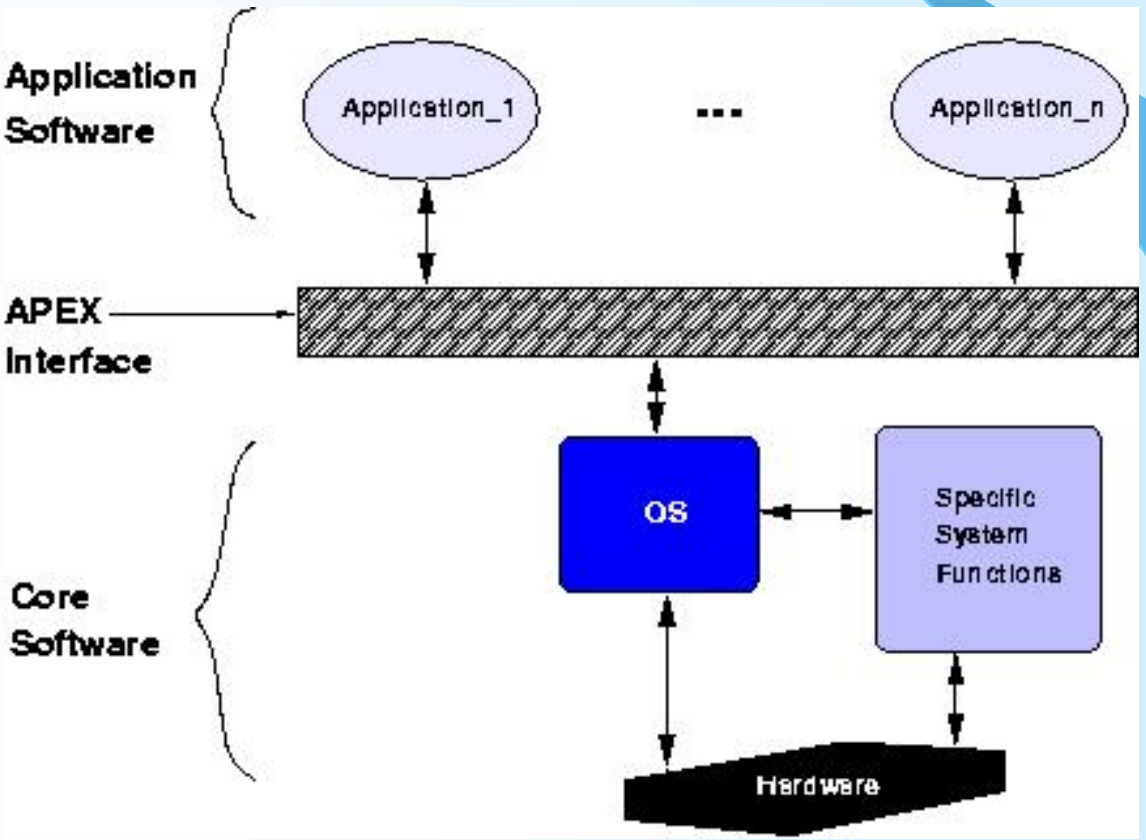
An ongoing use of Polychrony
Modeling of Modular Avionics Architectures
(based on ARINC 653 standard)

- Integrated Modular Avionics architectures (IMA)



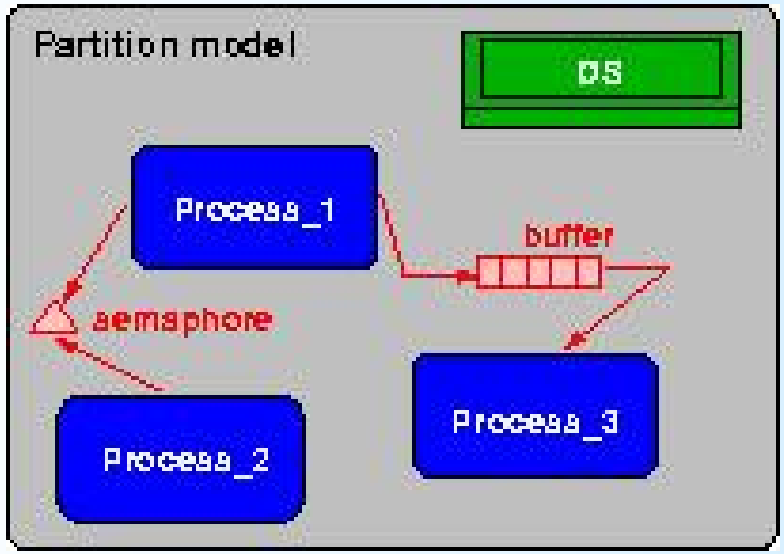
ARINC 653 standard

- Describes the APEX (APplication EXecutive) services (communication, synchronization, process/time management…) based on the IMA approach

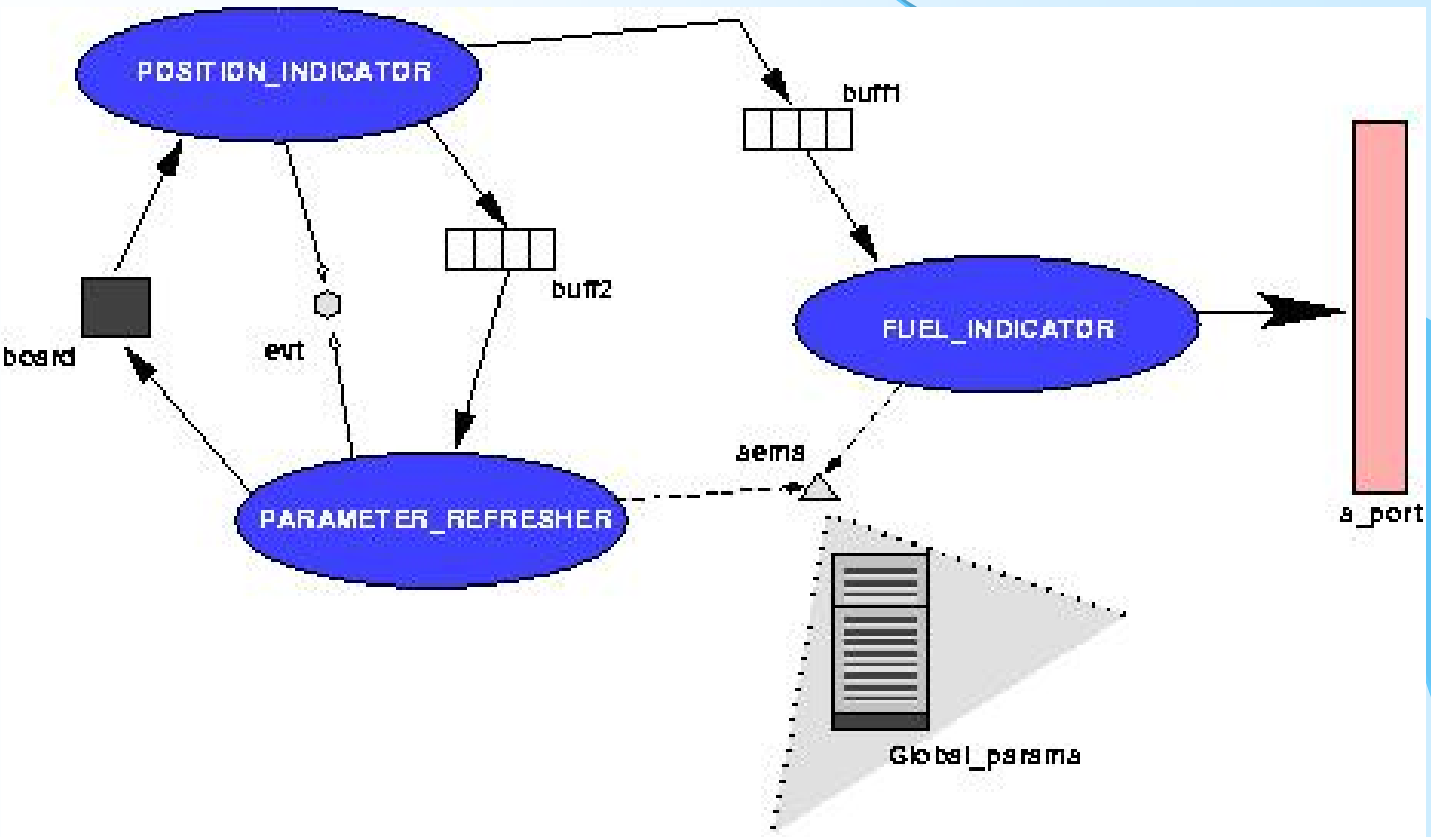


Modeling of partitions within Polychrony

- SIGNAL executive model of a partition:
- services model + process model + partition level OS model



Example: partition ON_FLIGHT



Application to embedded implementation of avionics simulator components

- Serializing real-time JAVA applications in SIGNAL with the ARINC API