Control (batch) file

Hardware definition

Device: core|thread affinity and constraints (placement)

Application definition file (behaviour) (topology)

Orchestrator

Supervisor binary

Core binaries

Threads

Cores

M

Mothership

MPI backplane

M *Supervisor*

Devices

Conventional MPI universe

POETS RISC-V network

Abstract application (device) graph

Abstract device behaviour assembled into SoftSwitches, cross compiled and deployed to physical threads