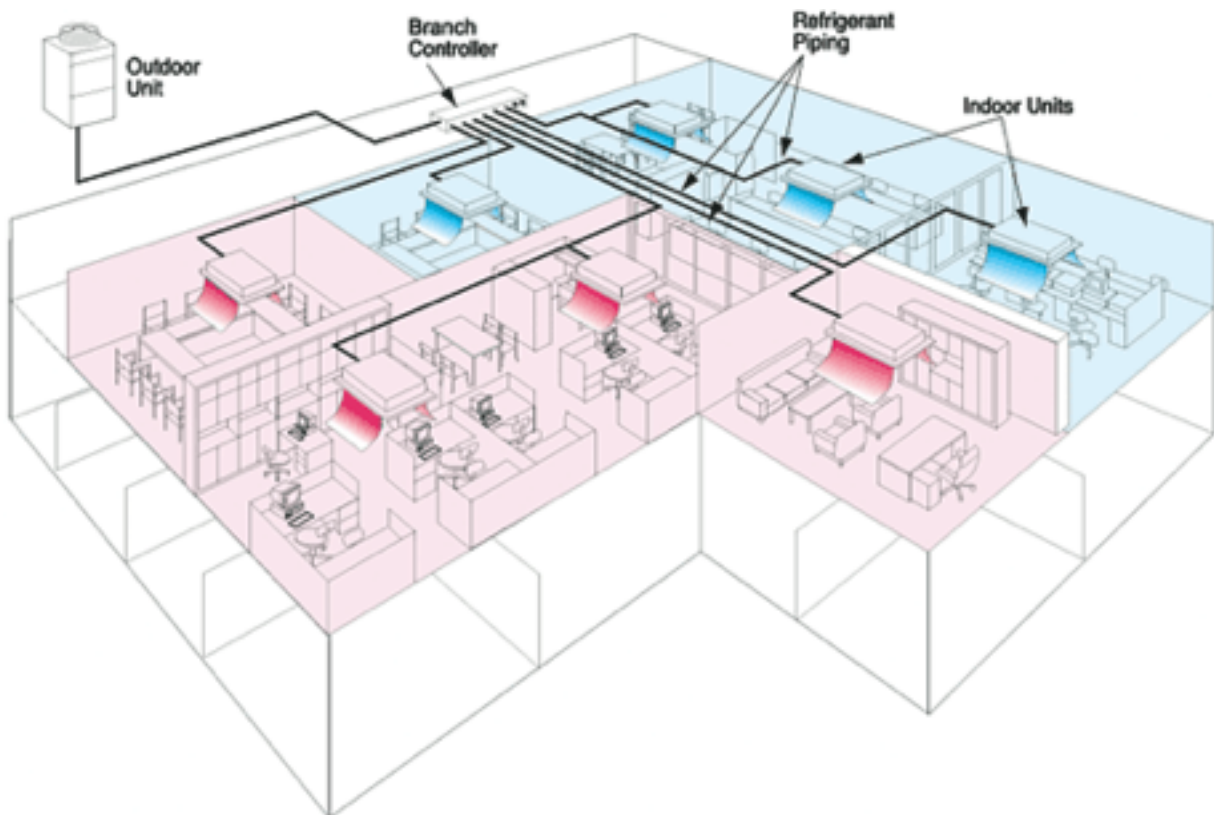


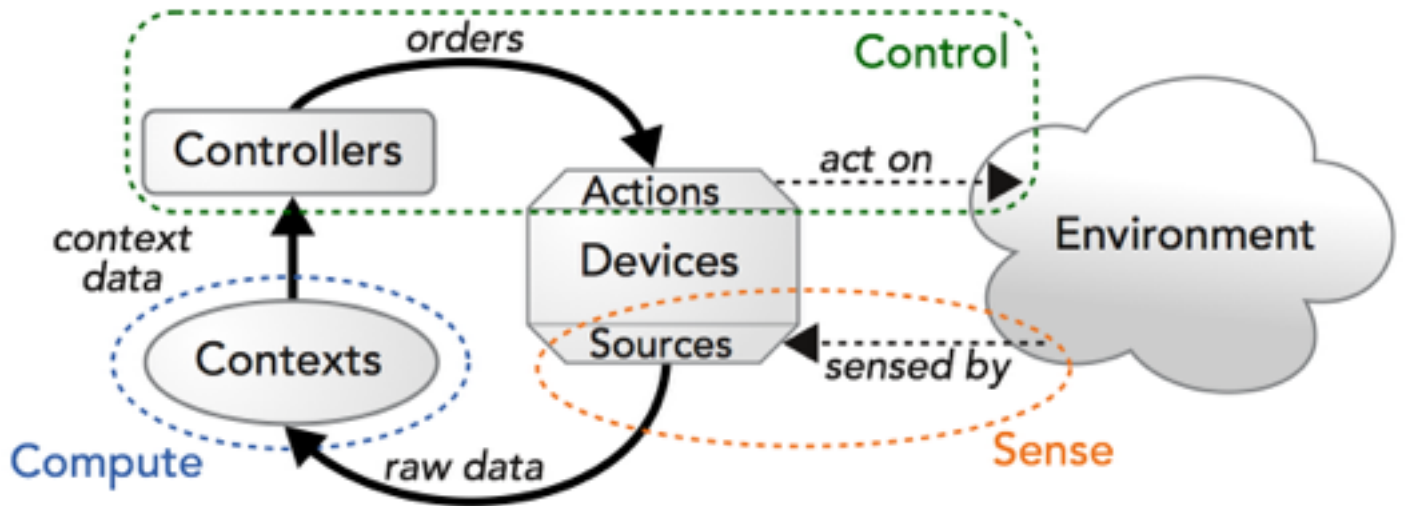
HVAC manager

Sensors / Actuators :

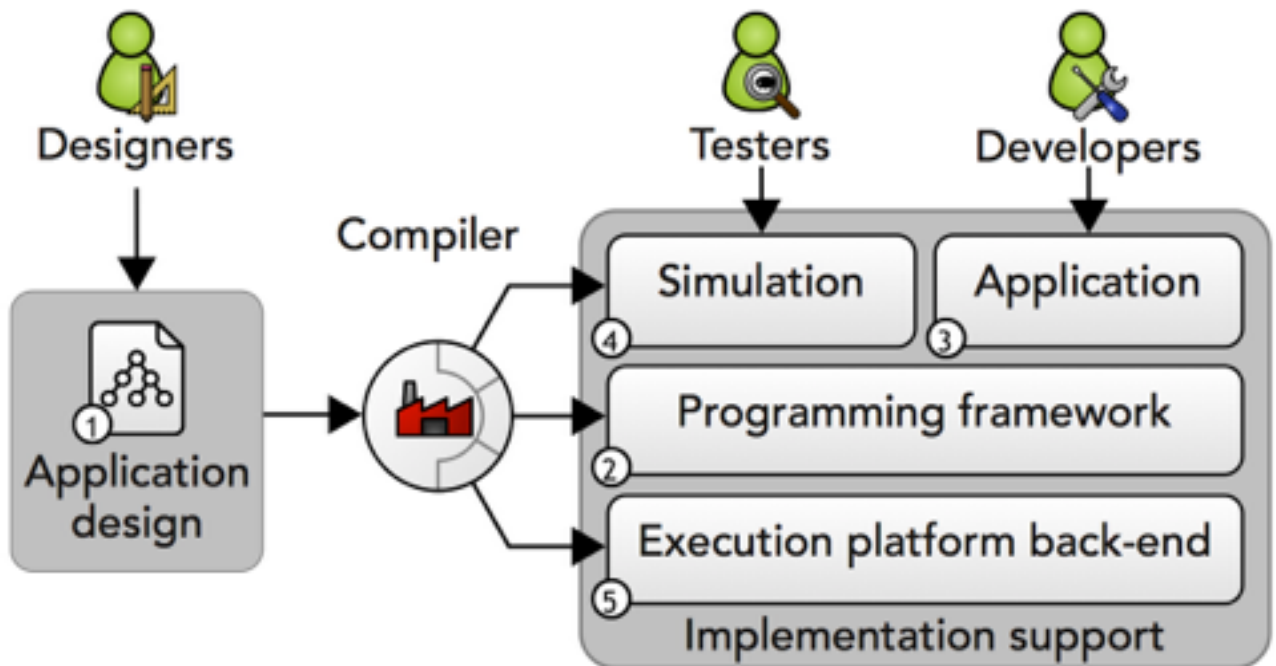
1. Temperature sensors
 - send periodically ambient temperature
2. Control panel
 - allows to define the target ambient temperature for the building
3. HVAC system

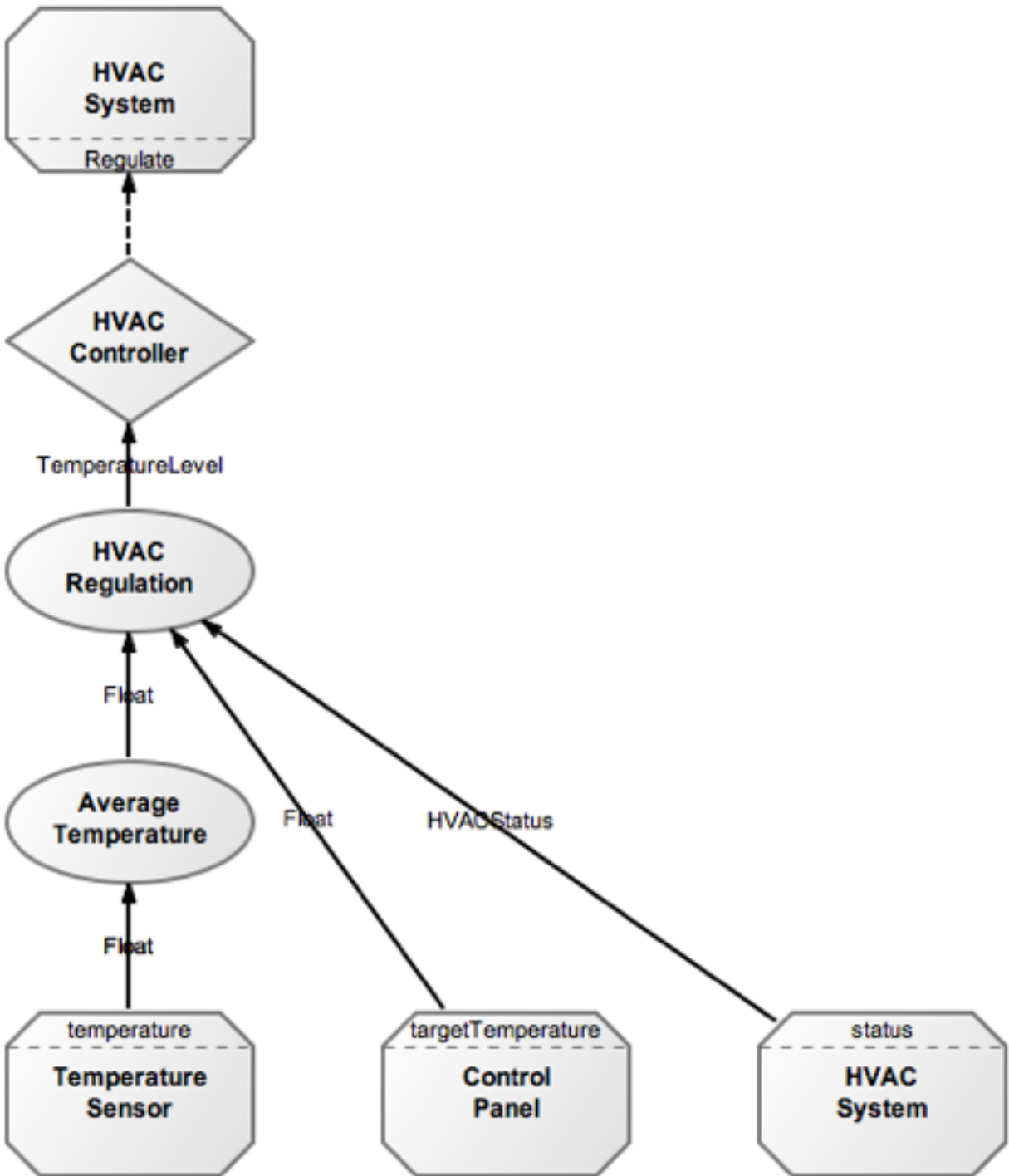


The Sense/Compute/Control paradigm



DiaSuite





```

include "taxonomy.diaspec";
/* TAXONOMY
enumeration HVACStatus {
    HEATING, COOLING, STOPPED
}

action Regulate {
    warmUp();
    coolDown();
    stop();
}

action SetTargetTemperature {
    setTemperature();
}

device ControlPanel extends PhysicalDevice {
    source targetTemperature as Float;
    action SetTargetTemperature;
}

device HVACSystem extends PhysicalDevice {
    source status as HVACStatus;
    action Regulate;
}*/
/* Application */
enumeration TemperatureLevel { COLD, OK, HOT}

context AverageTemperature as Float indexed by location as String {
    when provided temperature from TemperatureSensor
    get temperature from TemperatureSensor always publish;
}

context HVACRegulation as TemperatureLevel indexed by location as String {
    when provided AverageTemperature
    get targetTemperature from ControlPanel, status from HVACSystem
    maybe publish;
}

controller HVACController {
    when provided HVACRegulation do Regulate on HVACSystem;
}

```