

Node-specific hardware controls

Device 1

Device 2

⋮

Node Controllers
(local or networked)

RadarControllerNode

- Communicate with hardware
- Define and register fields
- Capture and broadcast data
- Define control callbacks
- State transitions

"Platform"

System-level Controller
(local)

RadarSystemController

- Single point-of-contact between GUI and the larger platform
- Track system-level state
- Define system-level behaviors
- Communicate with child nodes, either locally or over the network
- Process node events
- Synchronize parameters between nodes
- Control scan topology (when #nodes > 1)

-invoke-

-broadcast-

-invoke-

broadcast

RadarControlGUI

HardwareController

- Select platform
- Construct interface from registered field packet
- Track and Synchronize field state between various parts of the GUI
- Control platform lifecycle

catch hardware state change

invokeRadarController

ScanMode

- Trigger radar actions
- Visualize data
- High-level state machine programming

Field Controls

User Interaction

ScanMode Control Fields

Start Scan

Abort Scan