The Open Source AADL Tool Environment (OSATE) Graphical Editor
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What is RSESC?

- One of the 10 independent non-profit Research Centers operating under the Office of the Vice President for Research and Economic Development at UAH
- Multi-disciplined and affordable team of professionals with decades of experience in understanding customer requirements
  - Space and earth based mission payload design, fabrication and integration
  - Rotorcraft research, engineering and sustainment
  - Unmanned systems design and integration
  - System engineering, logistics development/management and project management
  - Structural, safety, reliability, failure analysis, and material science and
- Core Member of the ASSURE Team supporting the FAA Unmanned Aerial Systems (UAS) Center of Excellence
- Member of the Systems Engineering Research Center (SERC)
- Vertical Lift Consortium (VLC)
- Member of the C5 and CEED OTA Consortiums

AUVSI

The FAA's Center of Excellence for UAS Research
ASSURE
Alliance for System Safety of UAS through Research Excellence

SYSTEMS ENGINEERING
Research Center

ARMY AVIATION
Association of America, Inc.

AHS INTERNATIONAL

VLC
Vertical Lift Consortium

OMG
OBJECT MANAGEMENT GROUP

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What is the OSATE Graphical Editor?

- Part of OSATE that allows viewing and editing AADL models graphically.
- Open-source
- Uses graphics defined in the AADL standard.

Textual

```
system implementation integration.implementation1 extends integration.generic
subcomponents
    ecu1 : processor speed_regulation::platform::ecu_can_one_connector;
    ecu2 : processor speed_regulation::platform::ecu_can_one_connector;
properties
    Actual_Processor_Binding => (reference (ecu1)) applies to image_acquisition,
        radar_acquisition, speed_estimate, position_voter, obstacle_detection;
    Actual_Processor_Binding => (reference (ecu2)) applies to
        obstacle_distance_evaluation, speed_threshold_calculation, speed_controller,
        emergency_detection, warning_activation;
end integration.implementation1;
```

Graphical

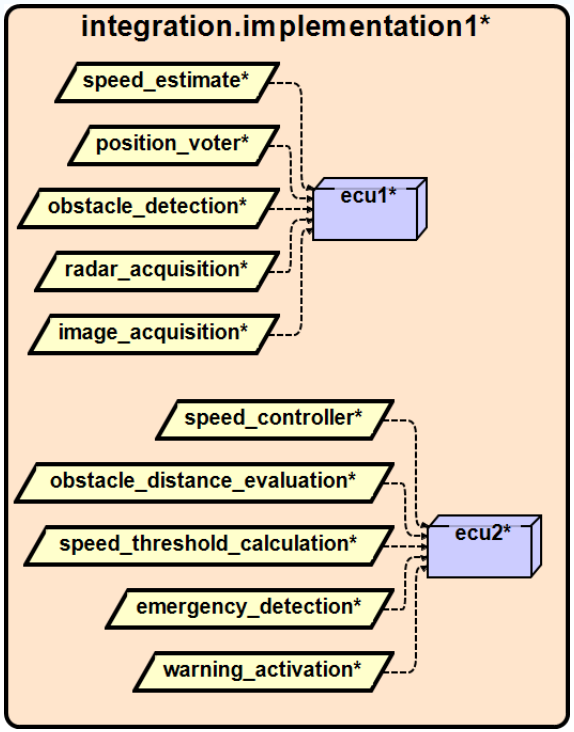

Diagram created using the OSATE speed-regulation example

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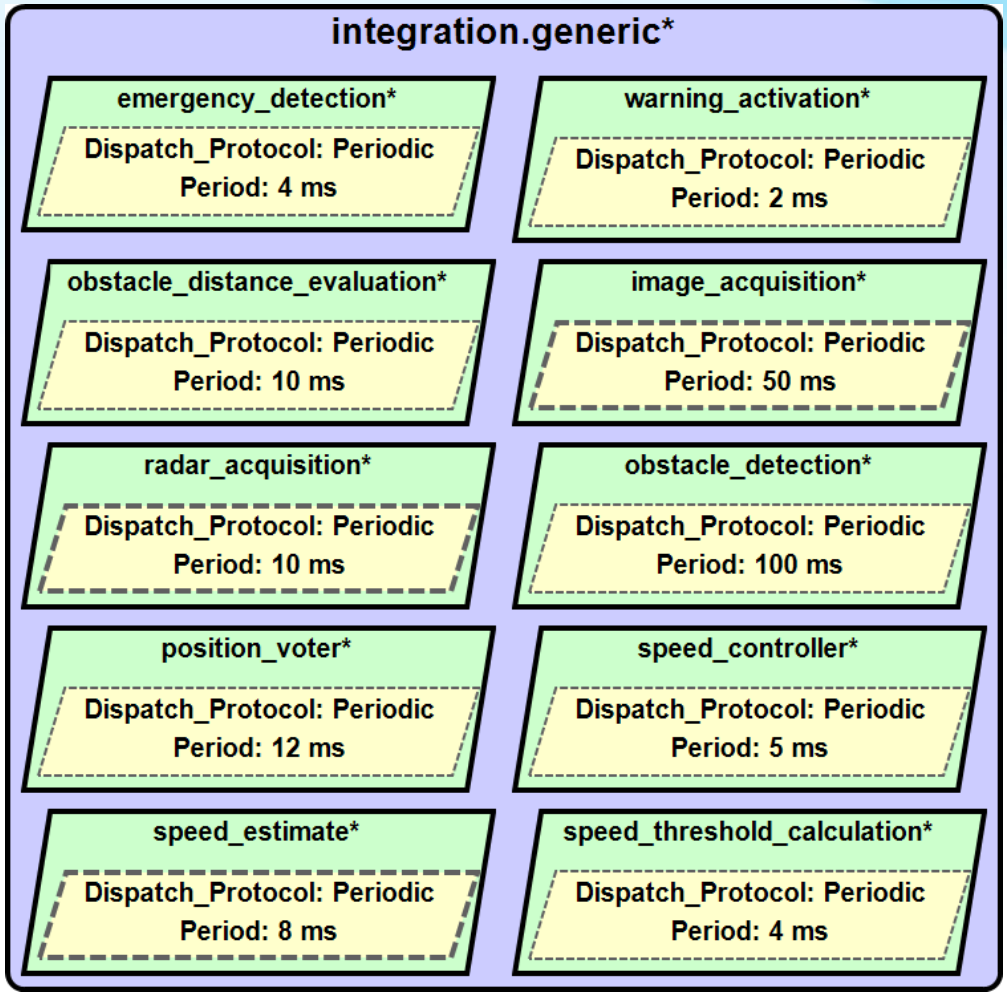
Capabilities

- Diagram editing
- Diagram annotations
- Model editing
- Bind model elements
- Display flows
- Display AADL properties
- Automatic layout
- Alignment tools



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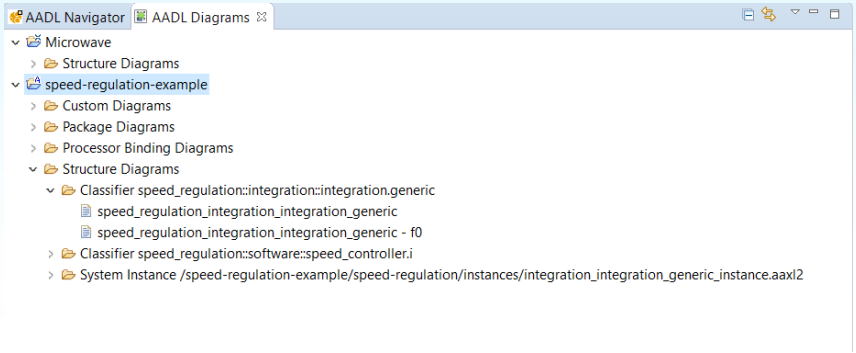
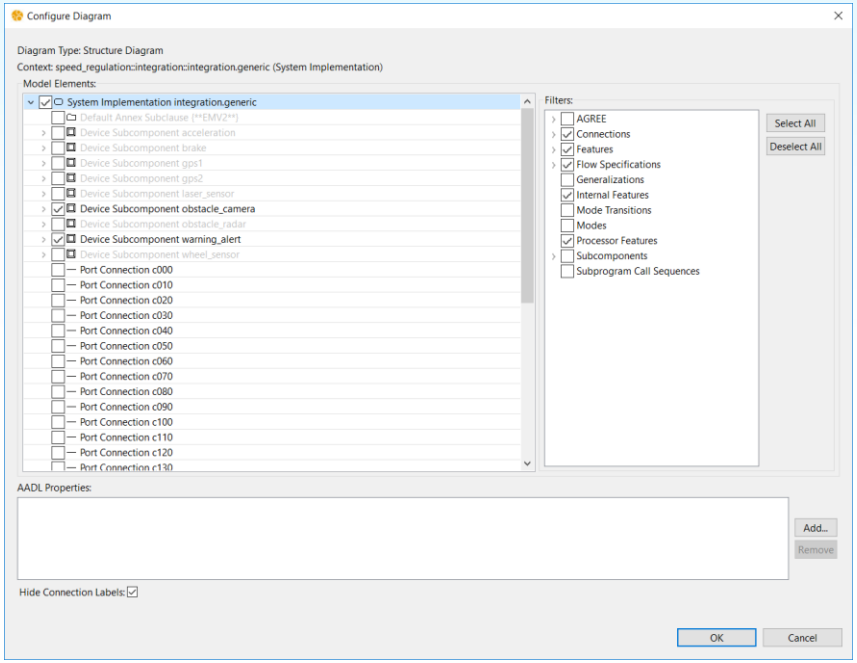
Capabilities

Navigation



Configuration



Extensibility

- Diagram contents
- Tooltips
- Properties view
- Menu items

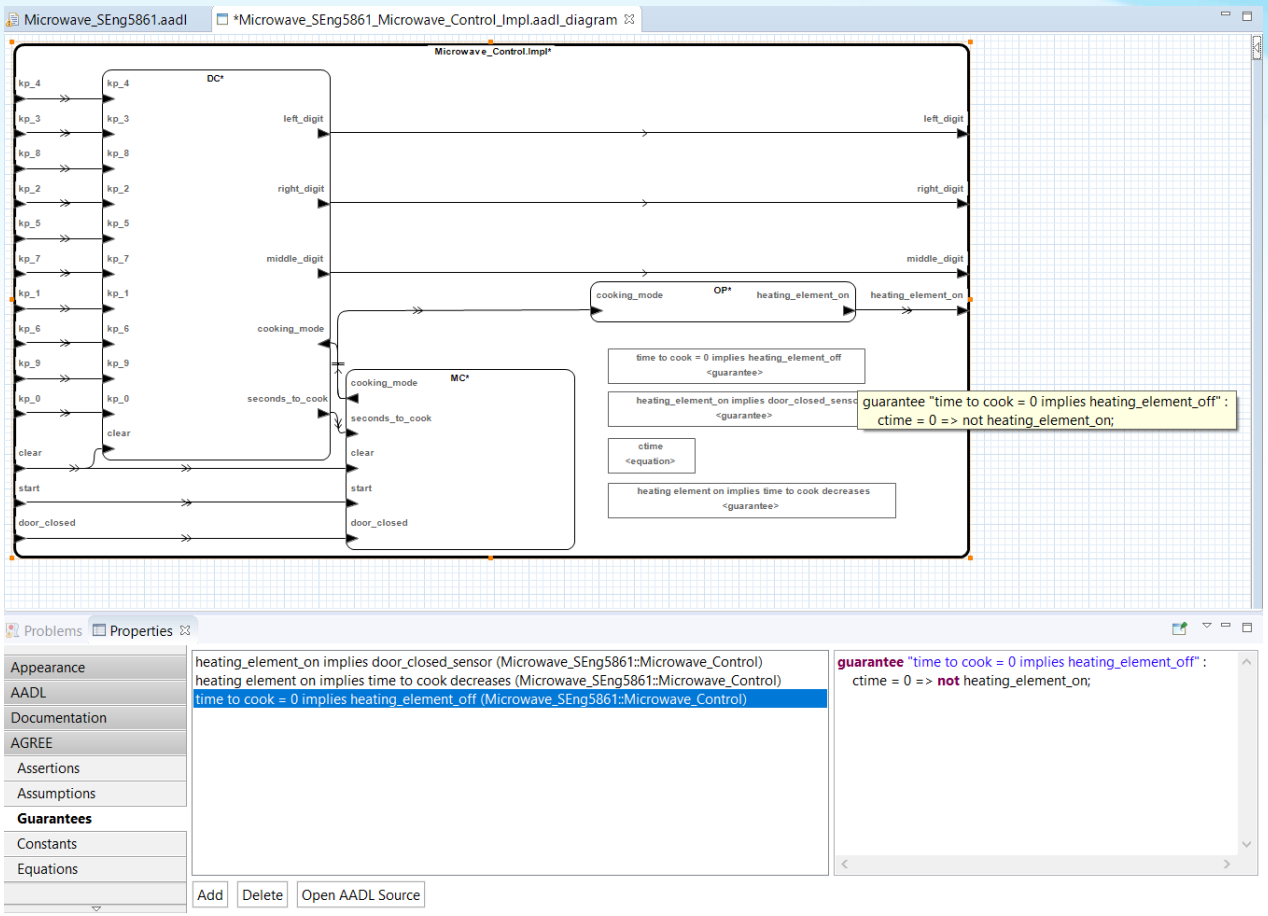


Diagram creating using the SMACCM Microwave example

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Booth

- Answer Questions
- Demonstrate capabilities
- Suggestions