

**PWRUP:
A Playbook & Whiteboard
for
Rapid User Programming**

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PWRUP (“power up”)

- New research sponsored by DARPA
 - Funding for half-year analysis/proof-of-concept
 - Potential follow on for implementation
- Ultimate goal:
 - End-user programmability of behavior systems
 - Scenario & mission specification at many different levels of abstraction
 - Creation of new behaviors by users

PWRUP Approach

- Libraries of programmer developed behaviors
 - Formal specification of behaviors/behavior units
 - Encapsulate complex components/component interactions
 - Expose behavior parameters in user-friendly ways
- Visual programming
 - Create programs within the semantics and operators of the task domain
- Program verification and validation
 - Guide user by confirming syntax and semantics, ensure specified constraints are not violated

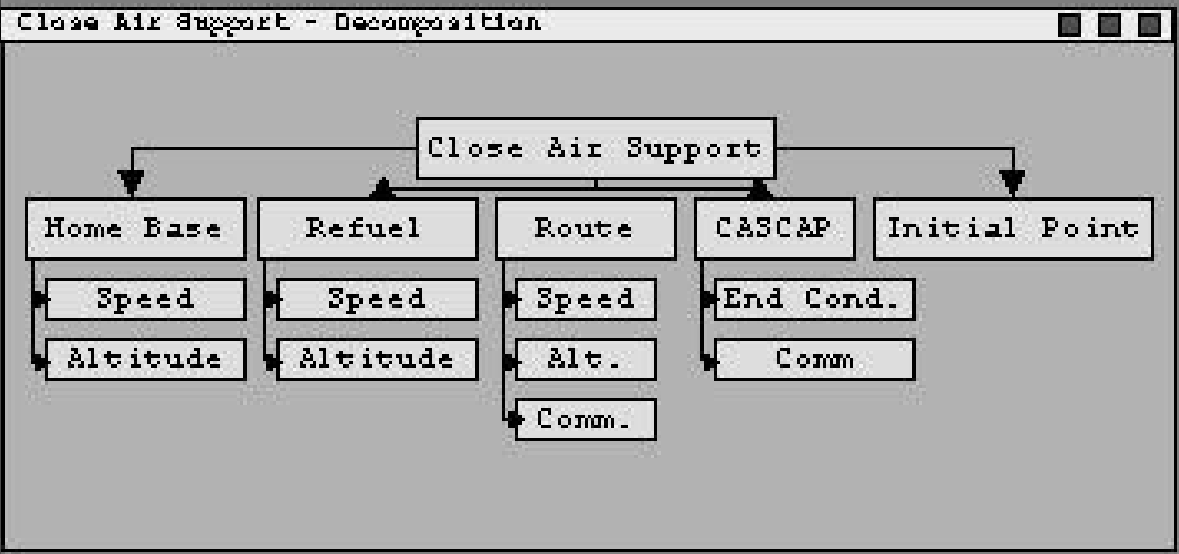
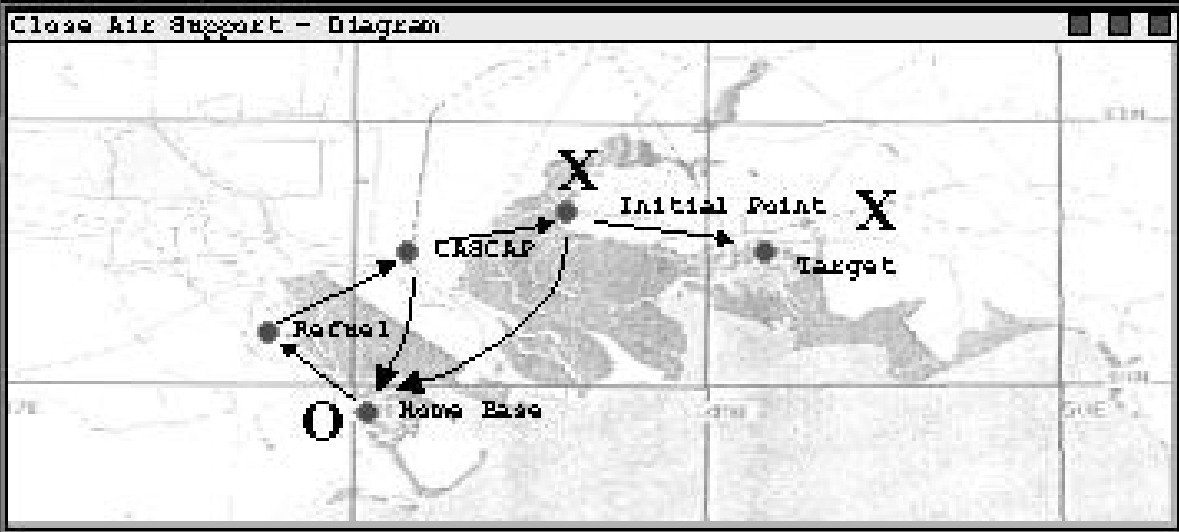
Missions Playbook



File Edit View Tools Help



- ❖ Missions
 - ❖ Close Air
 - Diagram
 - ⊙ Decompo
 - ❖ BarCAP
 - ❖ SCUDCAP



Why might you care?

- General techniques for formally representing and encapsulating operators, problem spaces, objects and dependencies
 - Easy-to-use (and re-use) Soar knowledge libraries!
 - Formal codification of idiomatic conventions
- Domain-general, real-time program verification & constraint-checking
 - Techniques applicable/tailorable to both knowledge engineers and end-users
- End-user programming tool (PWRUP)
- Ideas/suggestions? wray@soartech.com