Good IDEF0 Task Models

Good IDEF0 Task Models

- Follow IDEF0 rules.
- Tell a "transformative" story.
- Model operator tasks.
- Show other transformations.
- Model important by-products/side effects.
- Model human performance-shaping factors.
- Model guidance information, other constraints.
- Model user(s)/operator(s).
- Model tools, equipment, etc.
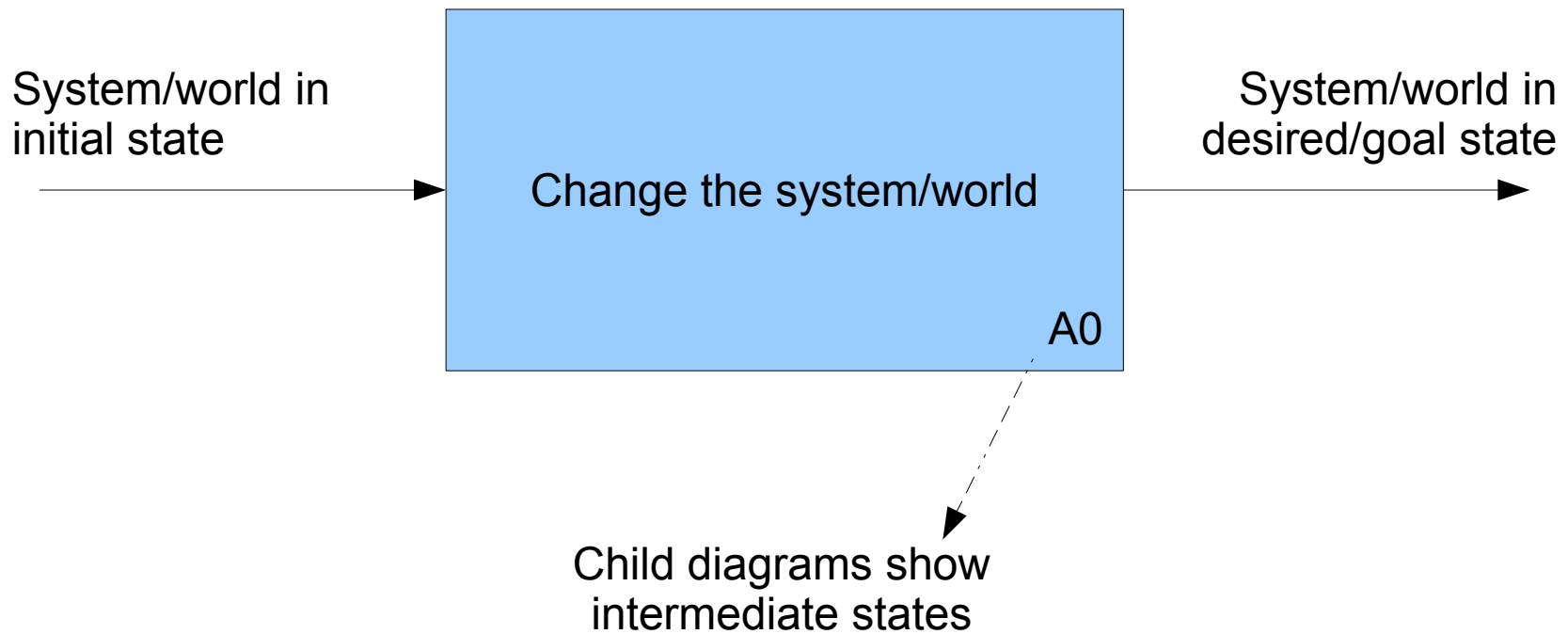- Provide sufficient level of detail.

Good IDEF0 Task Models

- **Follow IDEF0 rules and guidelines, e.g.,**
    - verb phrases in boxes
    - noun phrases on arrows
    - 3-6 boxes per diagram (except A-0)
    - All boxes in diagram have same "flavor," e.g.,
        - level of detail
        - parallel construction (same label syntactic structure)
    - Functionally dominant boxes towards upper left
    - etc.

Good IDEF0 Task Models

- Follow IDEF0 rules.
- **Tell a "transformative" story:**

System/world in
initial state

→

Change the system/world

A0

System/world in
desired/goal state

→

Child diagrams show
intermediate states

Good IDEF0 Task Models

- Follow IDEF0 rules.
- Tell a "transformative" story.
- **Model operator tasks as IDEF0 activities:**

- Enter/ingress
- Plan …
- Prepare …
- Configure/setup …
- Monitor …
- Control …
- Communicate ...

- Detect …
- Decide …
- Diagnose …
- Evaluate …
- Maintain …
- Predict …
- Exit/egress
- etc.

Good IDEF0 Task Models

- Follow IDEF0 rules.
- Tell a "transformative" story.
- Model operator tasks.
- **Show other transformations as inputs/outputs, e.g.,**
    - parts, materials, supplies, etc. to be used
    - documents, records to be updated
    - tools, equipment, devices, etc. to be prepared, configured, setup to be used (as mechanisms)
    - etc.

Good IDEF0 Task Models

- Follow IDEF0 rules.
- Tell a "transformative" story.
- Model operator tasks.
- Show other transformations.
- **Model important by-products/side effects as outputs, e.g.,**
  - reports
  - documents
  - other communication
  - waste
  - etc.

Oregon State UNIVERSITY **OSU** College of Engineering

Good IDEF0 Task Models

- Follow IDEF0 rules.
- Tell a "transformative" story.
- Model operator tasks.
- Show other transformations.
- Model important by-products/side effects.
- **Model human performance-shaping factors as controls, e.g.**
  - Environmental factors
  - Time & other stressors
  - Fatigue
  - Other user/operator factors
  - System/equipment factors

Good IDEF0 Task Models

- Follow IDEF0 rules.
- Tell a "transformative" story.
- Model operator tasks.
- Show other transformations.
- Model important by-products/side effects.
- Model human performance-shaping factors.
- **Model guidance information, other constraints as controls, e.g.**
  - orders
  - policies, procedures, checklists
  - rules, regulations
  - etc.

Good IDEF0 Task Models

- Follow IDEF0 rules.
- Tell a "transformative" story.
- Model operator tasks.
- Show other transformations.
- Model important by-products/side effects.
- Model human performance-shaping factors.
- Model guidance information, other constraints.
- **Model user(s)/operator(s) as mechanisms.**

Good IDEF0 Task Models

- Follow IDEF0 rules.
- Tell a "transformative" story.
- Model operator tasks.
- Show other transformations.
- Model important by-products/side effects.
- Model human performance-shaping factors.
- Model guidance information, other constraints.
- Model user(s)/operator(s).
- **Model tools, equipment, etc. as mechanisms.**

Good IDEF0 Task Models

- Follow IDEF0 rules.
- Tell a "transformative" story.
- Model operator tasks.
- Show other transformations.
- Model important by-products/side effects.
- Model human performance-shaping factors.
- Model guidance information, other constraints.
- Model user(s)/operator(s).
- Model tools, equipment, etc.
- **Provide sufficient level of detail to**
  - demonstrate deep understanding of system, tasks
  - support requirements development