### SBGN PD

Current status, future changes and unresolved issues

Harmony 2011 NYC

# PD Specification

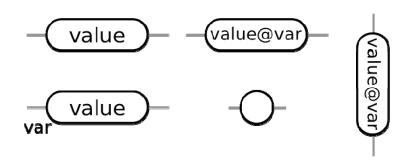
- Level 1 Version 1: Sep 2008
  - Original specification
- Level 1 Version 1.1: Sep 2009
  - Fixed inconsistencies
  - Typos
  - Clarified "ontology" of glyphs
  - Nomenclature changes for consistency with other languages
- Level 1 Version 1.2: Oct 2010
- Level 1 Version 1.3: Feb 2011
  - Minor changes of clarity
  - Document errors
- Level 1 Version 2.0 Apr/May 2011

### What's in Version 2.0

- New/Modified Glyphs
- Resolving semantic "issues"
- Enumerated rules
- Improve organisation/clarity of the spec

# Level 1 Version 2.0: Glyphs

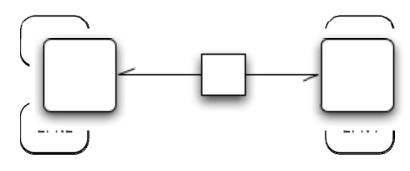
State Glyph Change



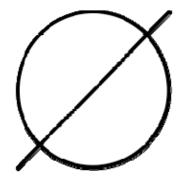
**New Annotation Glyph** 



Reversible Arc



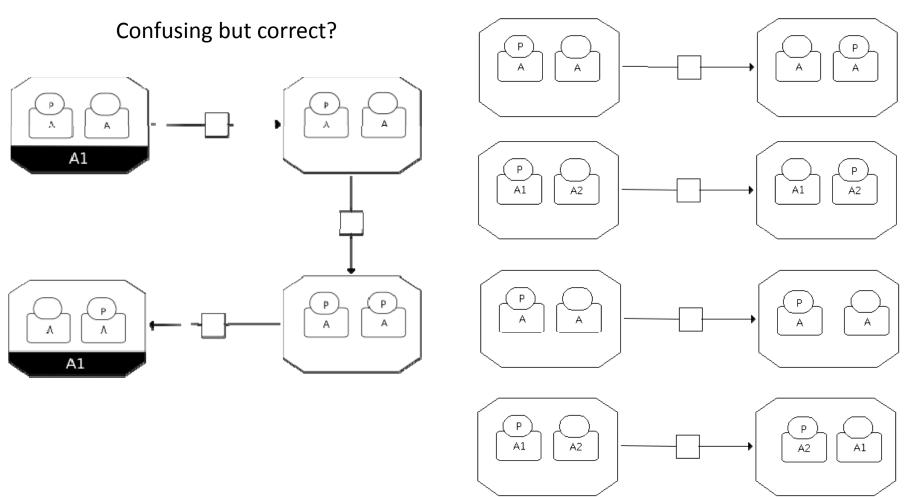
**Empty Set** 



### **Level 1 Version 2.0: Semantics**

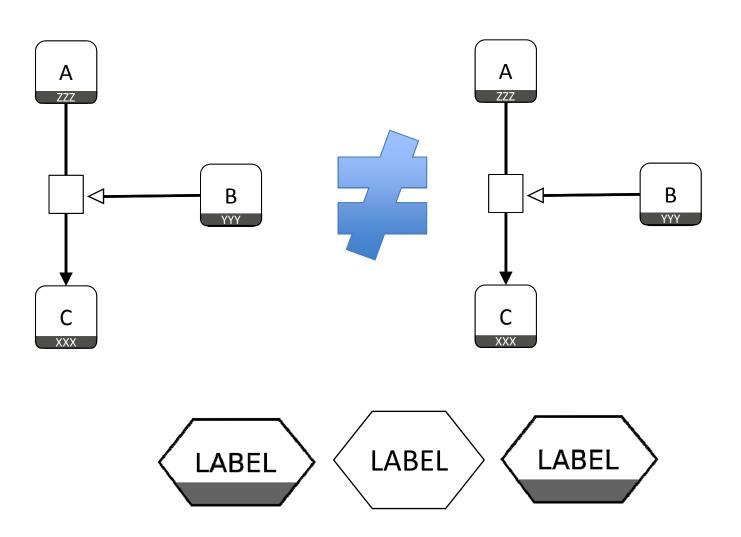
#### Subunits are not EPNS

#### Synthetic Unique Names



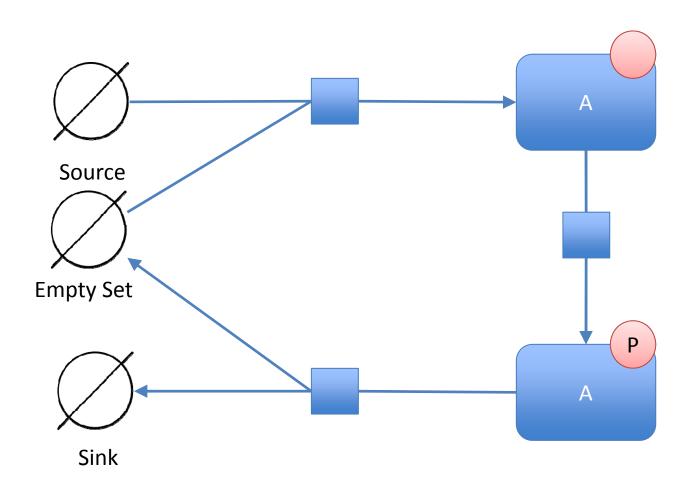
### Level 1 Version 2.0: Semantics

**Process Duplication** 



## Level 1 Version 2.0: Semantics

Source and Sink => Empty Set



# Level 1 Version 2.0: Spec

- Focus more on EPN types rather than glyphs
  - Integrate clone marker section
  - Integrate multimer section

Integrate semantic rules into glyphs

Enumerate rules – facilitate computational validation

# Road Map for PD

- Level 1 Version 2.0
  - Draft for Review: May 2011
  - RFC: 2-3 Weeks
  - Release June 2011
- Tool support!
- Level 2 Version 1.0
  - Theme: RISC notation?
  - Start work in Harmony 2012?
  - Release First Draft COMBINE 2012?

### **ER** Issues

- Delay
- Can arrow come from entity
- Can't define initial state
- Outcome not an Entity