SBOL Visual:
Standard for synthetic biology diagrams

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COMBINE
Salt Lake City
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Problem: Communicating Gene Constructs

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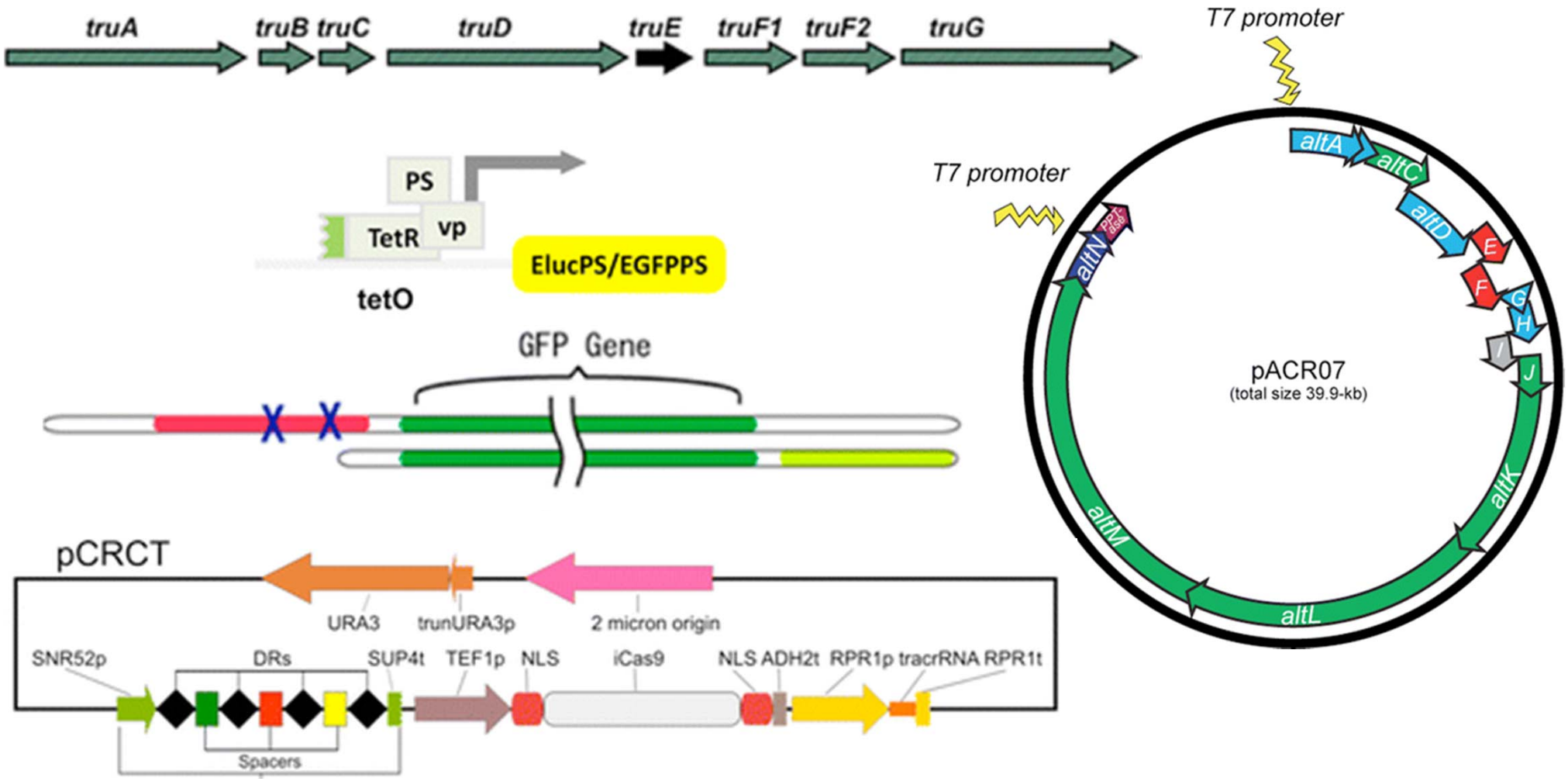
Construct diagrams from recent ACS Syn.Bio. papers:



Well, they're sort of similar…

Standards simplify communication

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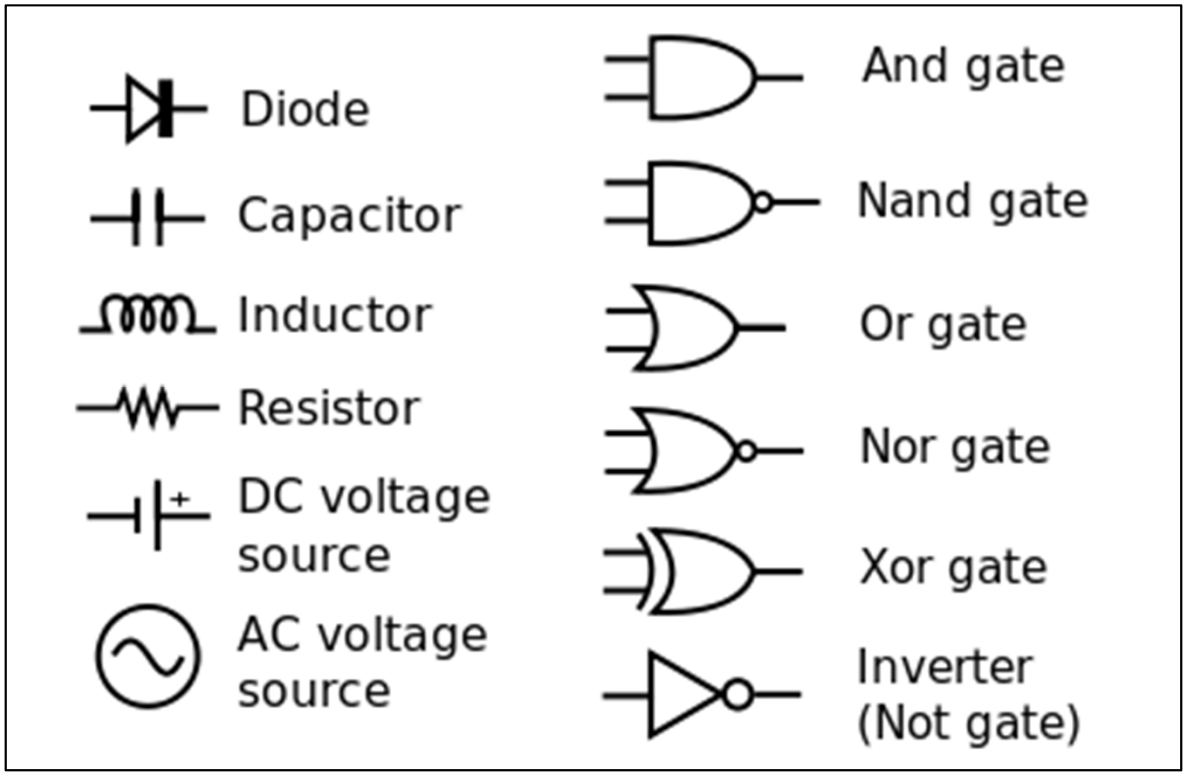
Inspiration: Standard Electronic Symbols:



… and many others in IEEE Std. 91/91a; IEEE Std. 315

What is the equivalent for synthetic biology?

SBOLv

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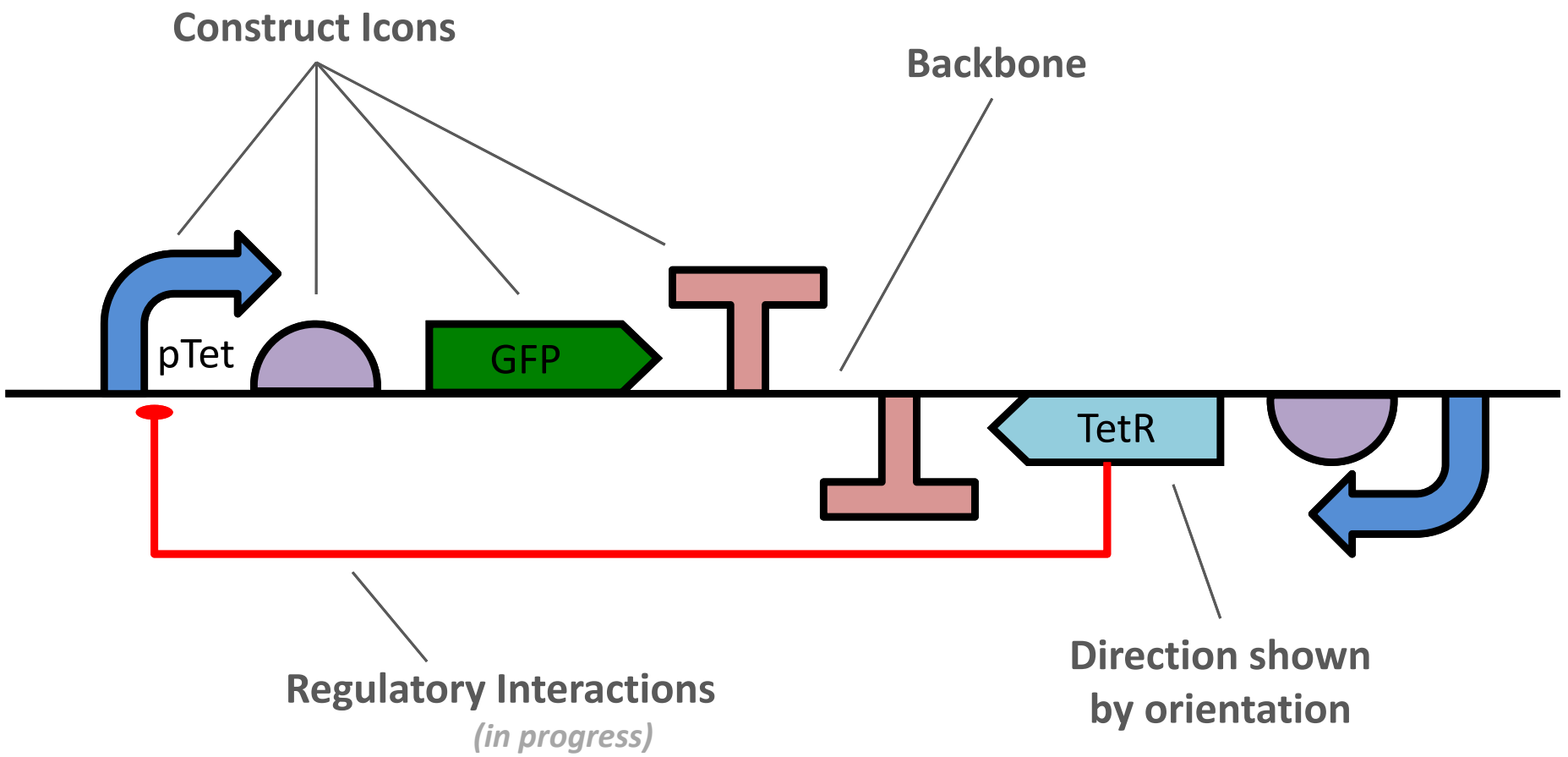

Synthetic Biology Open Language - Visual

Community standards in development since 2008

SBOL Visual 1.0: BBF RFC #93 doi: 1721.1/78249

(Prior versions: BBF RFC #68, #16)

Current SBOLv Symbols:

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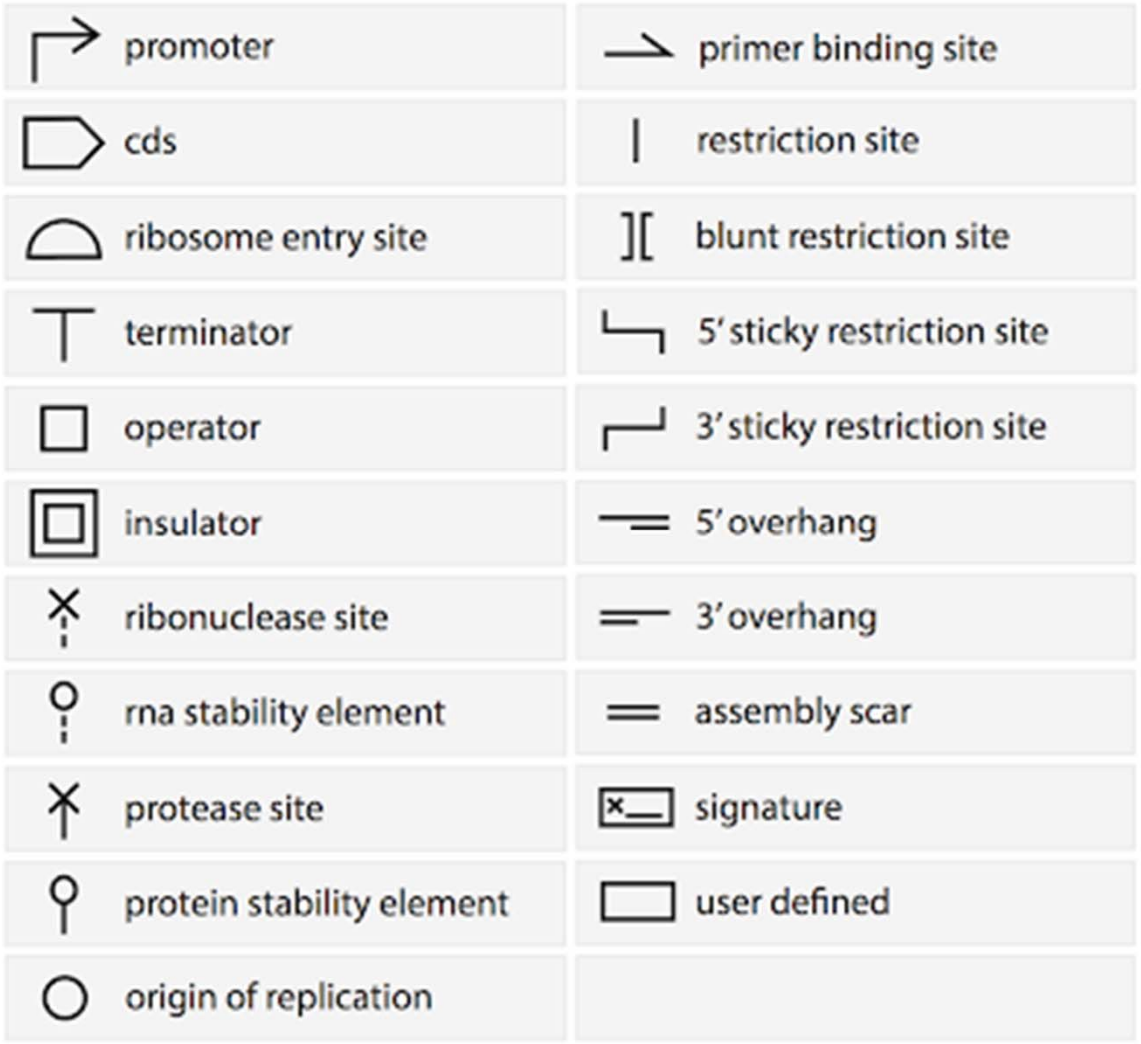

New symbols added by community consensus

Flexibility of Style

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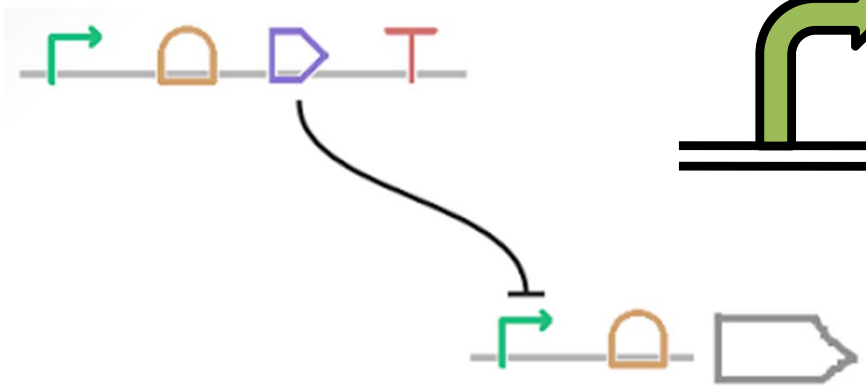

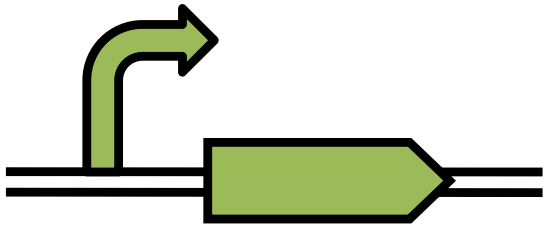

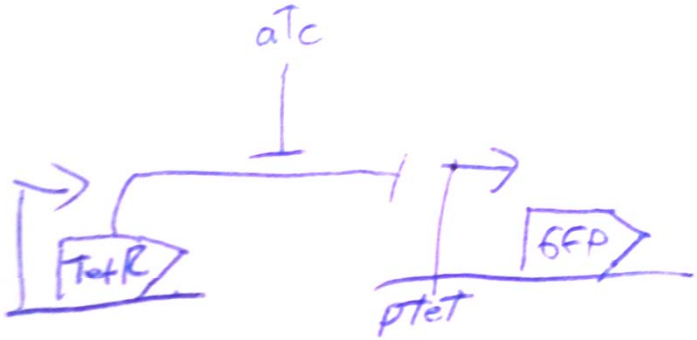

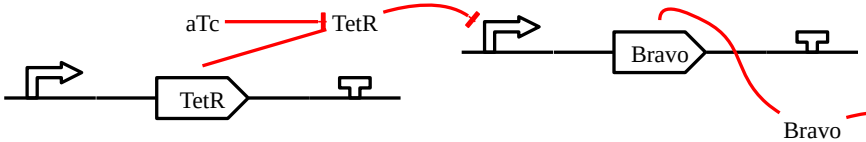

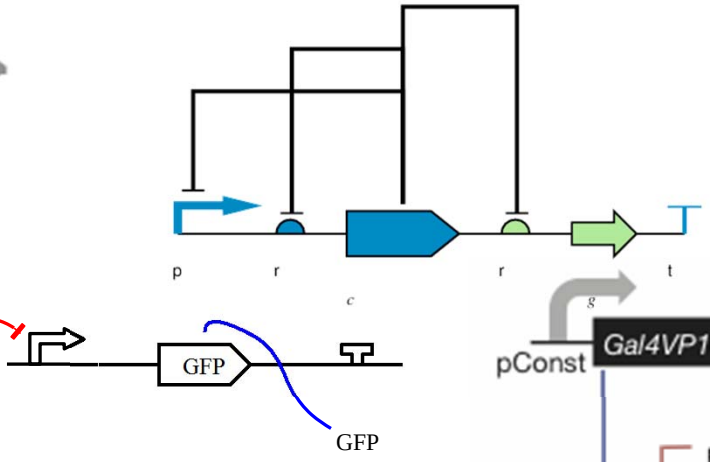

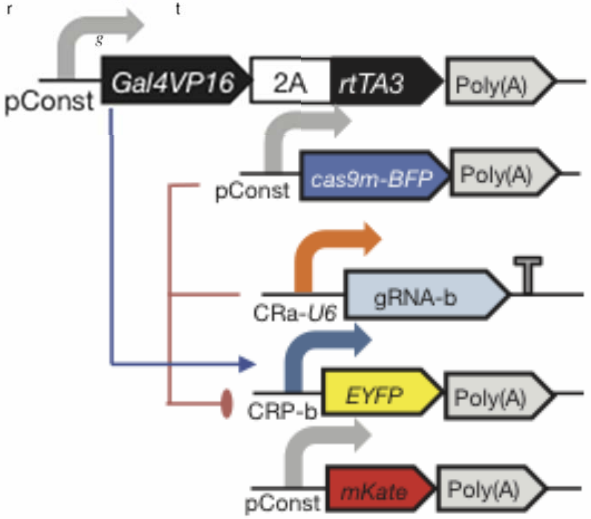

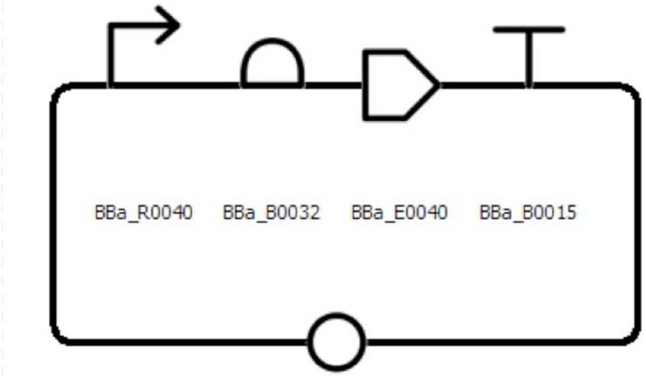

Color, Text, Scaling, Strands: all your choice

Is anything prohibited?

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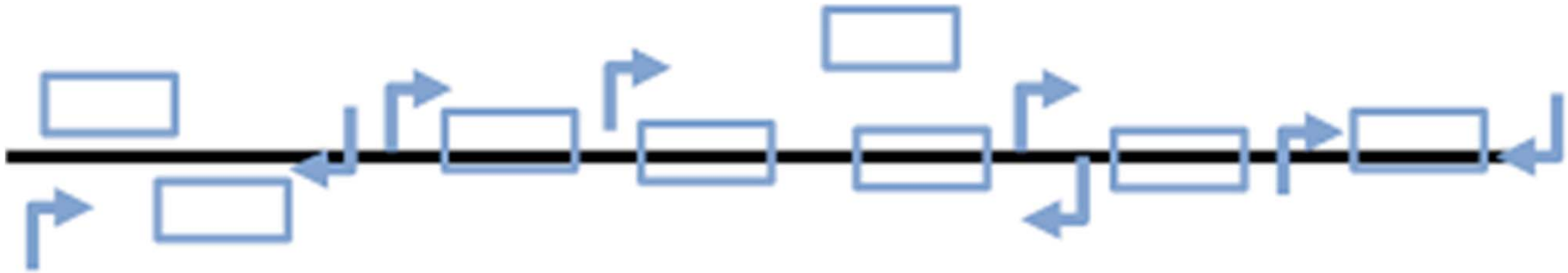

Yes.

Backing by Formal Semantics

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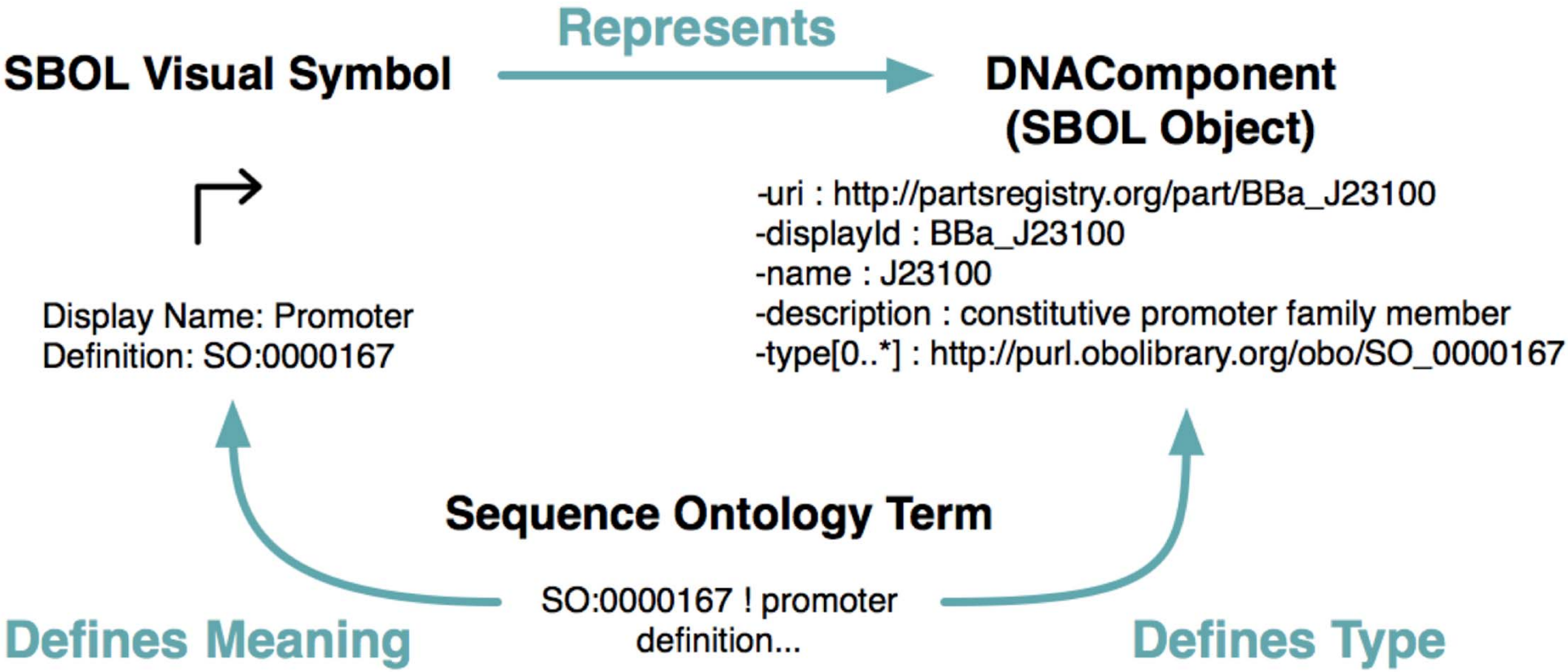

http://sbolstandard.org

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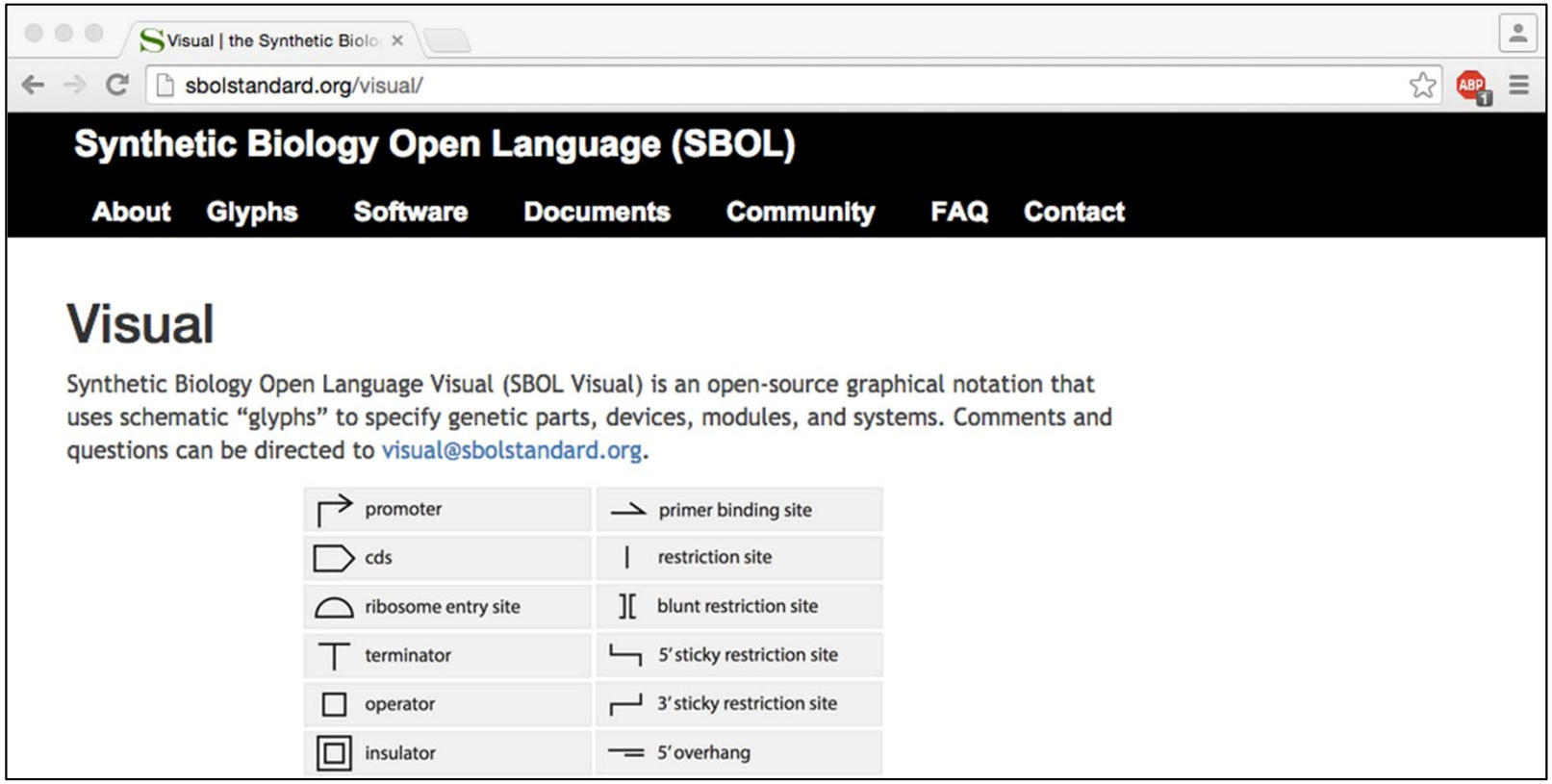
- Use the symbols in your papers & talks
- Contribute opinions, use cases, new symbols



- Community is open for anyone to join

Next key challenge: SBOLv 1.0 → 2.0

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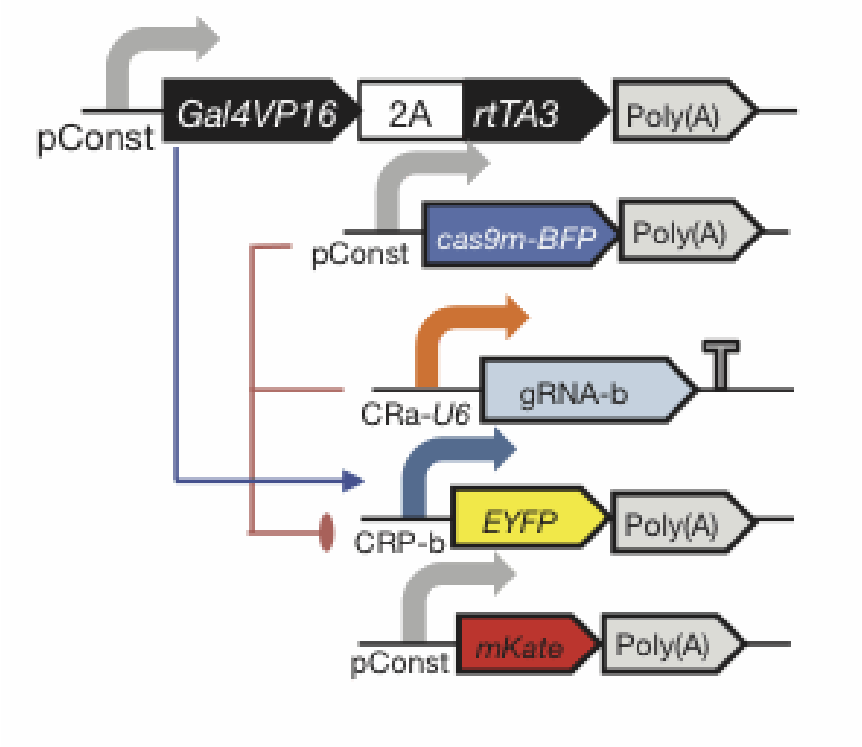
- Modules, interactions, models, partial locations



Strategy: Harmonization with SBGN