
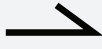





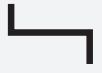


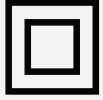












SBOL Visual Update

Current Symbol Set

 promoter	 primer binding site
 cds	 restriction site
 ribosome entry site	 blunt restriction site
 terminator	 5' sticky restriction site
 operator	 3' sticky restriction site
 insulator	 5' overhang
 ribonuclease site	 3' overhang
 rna stability element	 assembly scar
 protease site	 signature
 protein stability element	 user defined
 origin of replication	

RFC

Synthetic Biology Open Language Visual (SBOL Visual), version 1.0.0

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March 21, 2013

1. Purpose

In this BioBricks Foundation Request for Comments (BBF RFC), we specify the Synthetic Biology Open Language Visual standard (SBOL Visual) to enable consistent, human-readable depiction of genetic designs.

2. Relation to other BBF RFCs

BBF RFC 93 REPLACES BBF RFC 16

3. Copyright Notice

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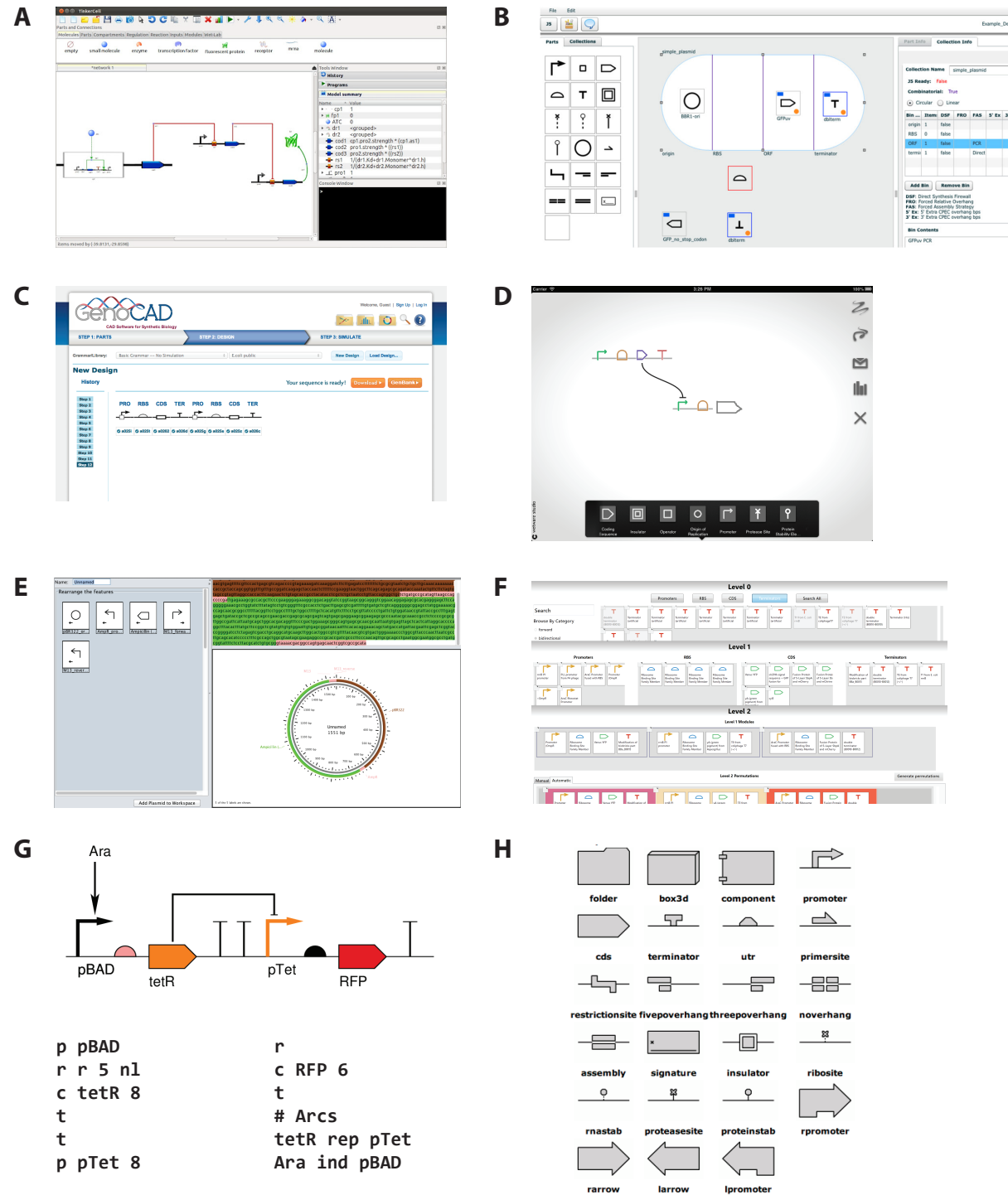
4. Description of SBOL Visual

The Synthetic Biology Open Language Visual (SBOL Visual) project is an effort to create an open-source graphical notation to support the description and specification of genetic designs. SBOL Visual is intended for use by biological engineers in forward engineering projects. It aims to encourage and support model-driven engineering by establishing a common set of symbols.

SBOL Visual Version 1.0.0 consists of a set of symbols that can be used to graphically depict functional information encoded by nucleic acid sequences. Each symbol in the set has three components: a shape, a display name, and a definition.

SBOL Visual symbol shapes are defined by spatial pattern, in a manner similar to alphanumeric characters. Stylistic features such as line width and color are left unspecified. When using symbols to represent parts or features in sequence, horizontal alignment and/or use of one or more lines to connect the symbols is RECOMMENDED. In such cases, the default configuration of the symbol shapes presented in Section 7 of this document implies that the genetic part is oriented in a 5' to 3' direction on the positive strand of the DNA molecule. Symbols that are both horizontally and vertically symmetric and represent parts on the positive strand SHOULD be positioned with their centers above the line. Negative strand conventions are a 180-

Tools



New to SBOL Visual

- BioCompiler (via GraphViz)
- SBOL Designer
- VectorNTI Express Designer
- Teselagen
- Genome Compiler

Next Steps

- Discussion and refinement of current symbols
 - Usage (e.g. components on a line)
- Define symbol lifecycle
 - Symbol Sandbox
- Adding regulation
- SBOL/SBOL Visual Ontology
 - Making SBOL Visual machine readable
- Relation to SBOL Core
- Development of Best Practices page