Summary

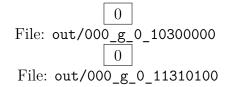
October 16, 2019

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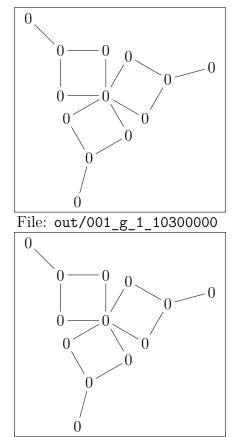
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### 0.1 Loaded Graphs

#### 0.1.1 Goal



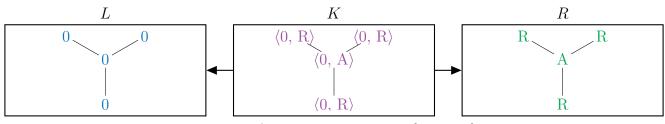
#### 0.1.2 Start



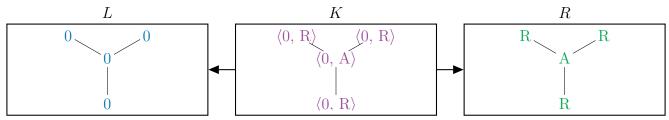
File: out/001\_g\_1\_11310100

## 0.2 Loaded Rules

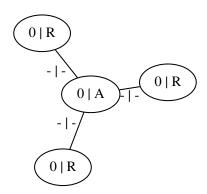
#### 0.2.1 Mark for conversion



Files: out/003\_r\_0\_10300000\_{L, K, R}



Files: out/004\_r\_0\_11300100\_{L, K, R}



File: out/005\_r\_0\_combined

$$|\{e \in \text{outEdges}(0)\}| = 3$$

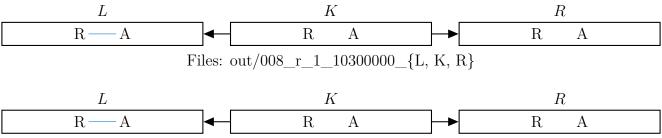
$$\begin{aligned} |\{e \in \text{outEdges}(0) \mid \\ \text{label}(\text{target}(e)) \in \{\text{`0'}\} \\ \}| &= 3 \end{aligned}$$

$$\begin{split} |\{e \in \text{outEdges}(1) \mid \\ \text{label}(\text{target}(e)) \in \{\text{`R'}, \text{`A'}\} \\ \}| = 0 \end{split}$$

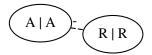
$$\begin{aligned} |\{e \in \text{outEdges}(2) \mid \\ \text{label}(\text{target}(e)) \in \{\text{`R'}, \text{`A'}\} \\ \}| = 0 \end{aligned}$$

$$\begin{split} |\{e \in \text{outEdges}(3) \mid \\ \text{label}(\text{target}(e)) \in \{\text{`R'}, \text{`A'}\} \\ \}| = 0 \end{split}$$

#### 0.2.2 RemoveSingleR



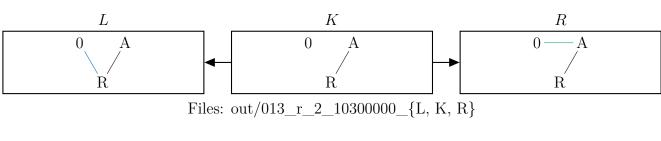
Files:  $out/009_r_1_11300100_{L, K, R}$ 

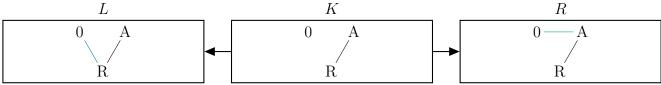


File: out/010\_r\_1\_combined

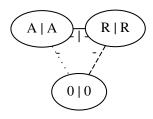
$$\begin{aligned} |\{e \in \text{outEdges}(1) \mid \\ \text{label}(\text{target}(e)) \in \{\text{`O'}, \text{`A'}\} \\ \}| = 0 \end{aligned}$$

#### 0.2.3 reattachExternalEdge



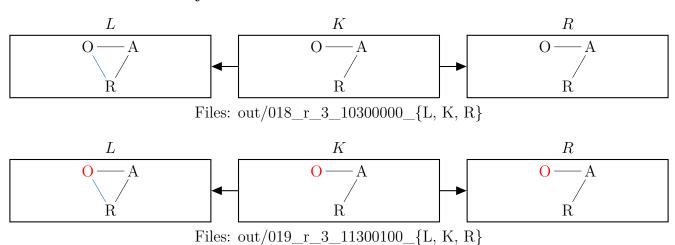


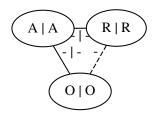
Files: out/014\_r\_2\_11300100\_{L, K, R}



File: out/015\_r\_2\_combined

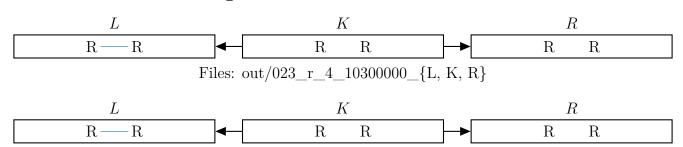
#### 0.2.4 remove Already Attached



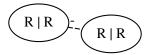


File: out/020\_r\_3\_combined

### ${\bf 0.2.5} \quad {\bf remove Inter REdge}$



Files: out/024\_r\_4\_11300100\_{L, K, R}

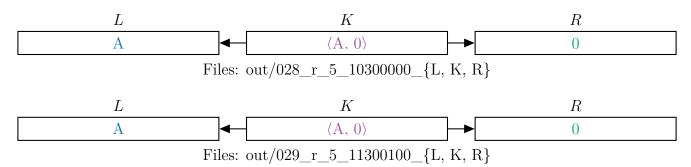


File: out/025\_r\_4\_combined

$$\begin{split} |\{e \in \text{outEdges}(0) \mid \\ \text{label}(\text{target}(e)) \in \{\text{`A'}, \text{`O'}\} \\ \}| = 0 \end{split}$$

$$\begin{aligned} |\{e \in \text{outEdges}(1) \mid \\ \text{label}(\text{target}(e)) \in \{\text{`A'}, \text{`0'}\} \\ \}| = 0 \end{aligned}$$

#### 0.2.6 unmark Collapsed Node

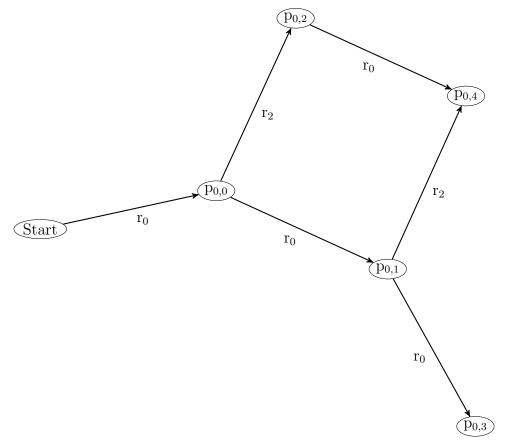


(A | 0)

File: out/030\_r\_5\_combined

$$\begin{aligned} |\{e \in \text{outEdges}(0) \mid \\ \text{label}(\text{target}(e)) \in \{\text{`R'}\} \\ \}| = 0 \end{aligned}$$

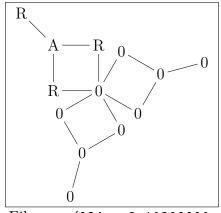
### 0.2.7 DG Hyper, dg\_0



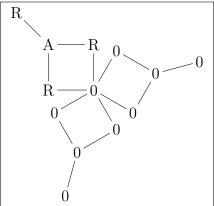
File: out/033\_dg\_0\_10100

## 0.3 Product Graphs

## $0.3.1 p_{0.0}$

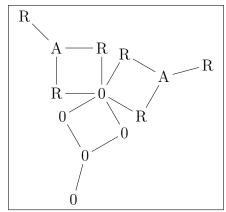


File: out/034\_g\_2\_10300000

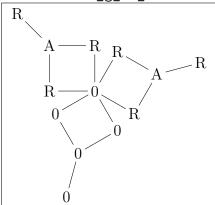


File: out/034\_g\_2\_11310100

0.3.2 p\_{0,1}

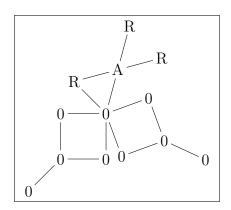


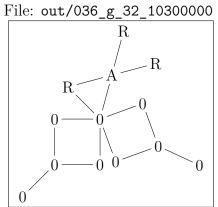
File: out/035\_g\_20\_10300000



File: out/035\_g\_20\_11310100

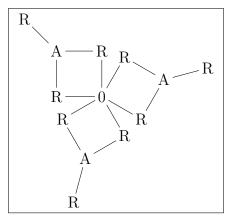
 $0.3.3 p_{0.2}$ 



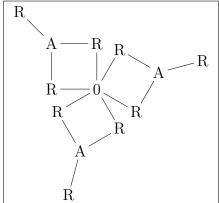


File: out/036\_g\_32\_11310100

### $0.3.4 p_{0.3}$

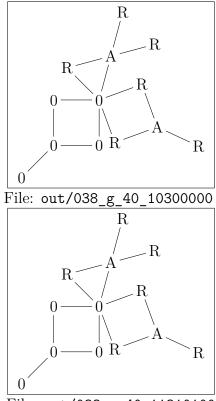


File: out/037\_g\_34\_10300000



File: out/037\_g\_34\_11310100

### $0.3.5 p_{0,4}$



File: out/038\_g\_40\_11310100

## 0.4 Flow Solutions, id 0