Summary

October 16, 2019

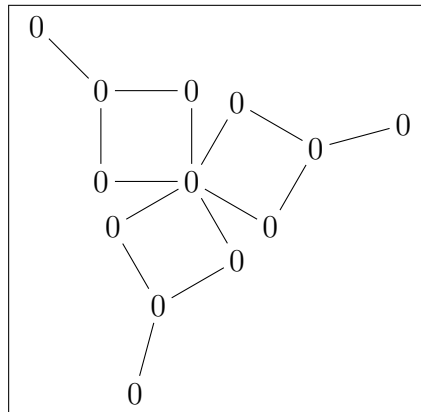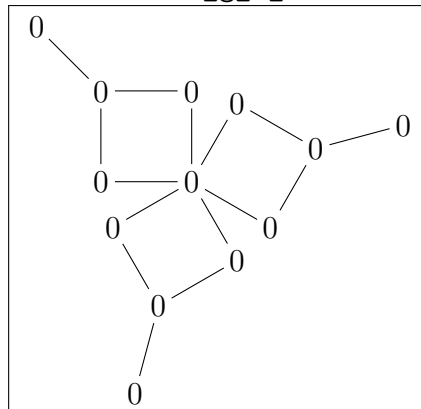# Contents

0.1 Loaded Graphs

0.1.1 Goal

$$\boxed{0}$$

File: out/000_g_0_10300000

$$\boxed{0}$$

File: out/000_g_0_11310100

0.1.2 Start
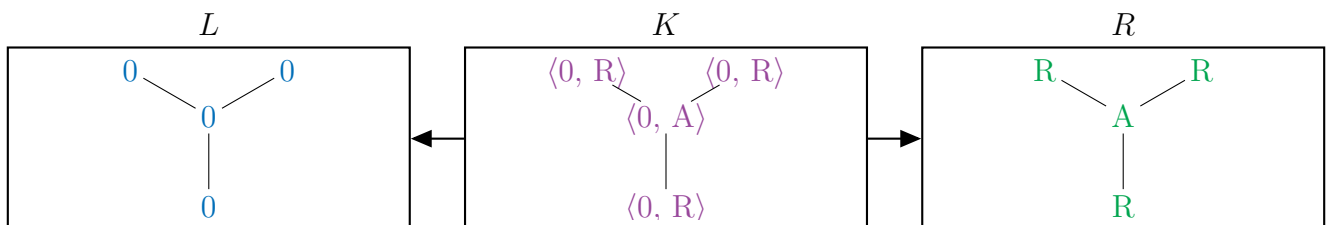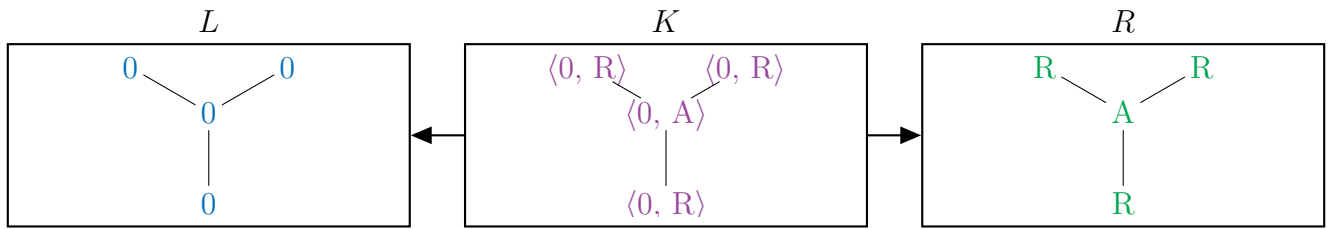

File: out/001_g_1_10300000
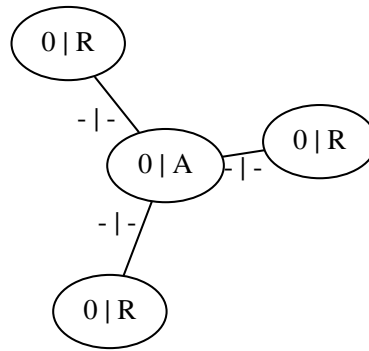

File: out/001_g_1_11310100

0.2 Loaded Rules

0.2.1 Mark for conversion

L	K	R

Files: out/003_r_0_10300000_{L, K, R}

$$
\begin{array}{ccc}
\begin{array}{c} 0 \quad\quad 0 \\ 0 \\ 0 \end{array} &
\begin{array}{c} \langle 0,\,R\rangle \quad \langle 0,\,R\rangle \\ \langle 0,\,A\rangle \\ \\ \langle 0,\,R\rangle \end{array} &
\begin{array}{c} R \quad\quad R \\ A \\ R \end{array}
\end{array}
$$

Files: out/004_r_0_11300100_{L, K, R}

File: out/005_r_0_combined

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

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

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

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

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

0.2.2 RemoveSingleR

L
R —— A

K
R   A

R
R   A

Files: out/008__r__1__10300000__{L, K, R}

L
R —— A

K
R   A

R
R   A

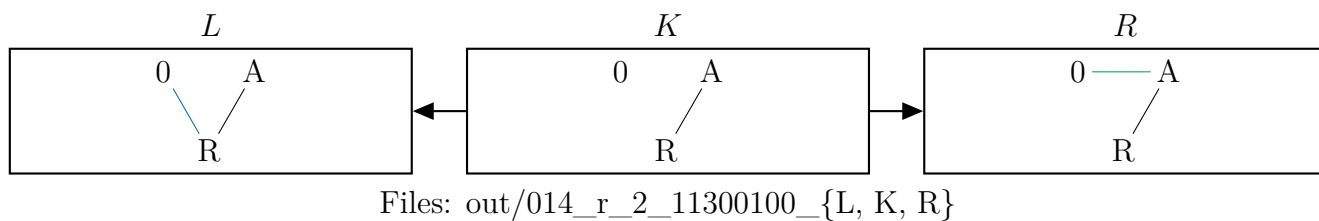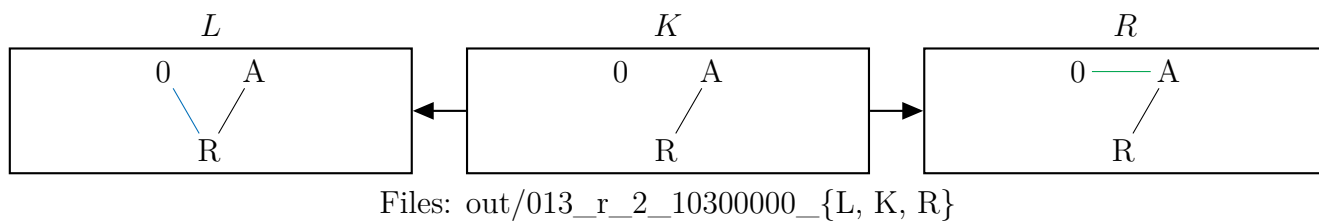Files: out/009__r__1__11300100__{L, K, R}
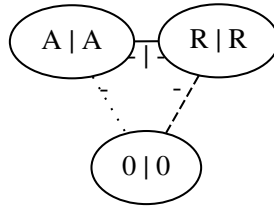
A | A ···· R | R
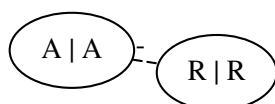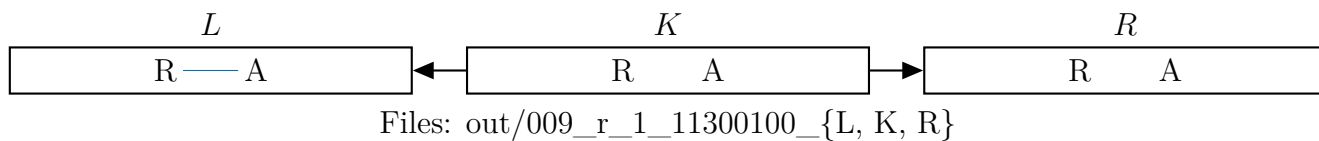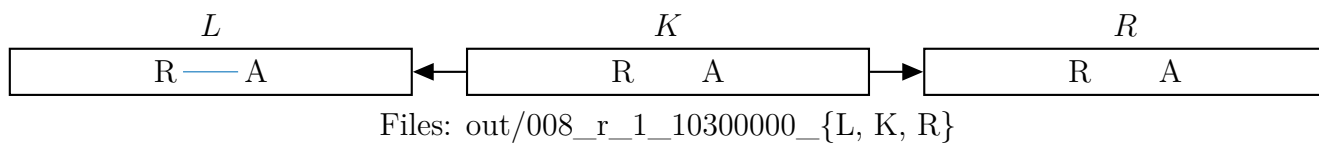
File: out/010__r__1__combined

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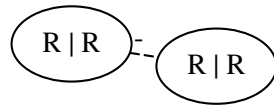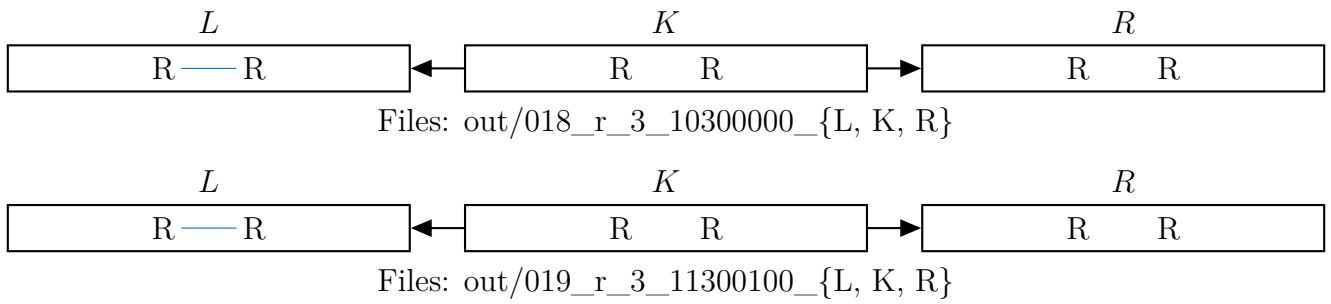$$\}| = 0$$

0.2.3 reattachExternalEdge

L
0   A
R

K
0   A
R

R
0 —— A
R

Files: out/013__r__2__10300000__{L, K, R}

L
0   A
R

K
0   A
R

R
0 —— A
R

Files: out/014__r__2__11300100__{L, K, R}

File: out/015_r_2_combined

0.2.4 removeInterREdge

Files: out/018_r_3_10300000_{L, K, R}

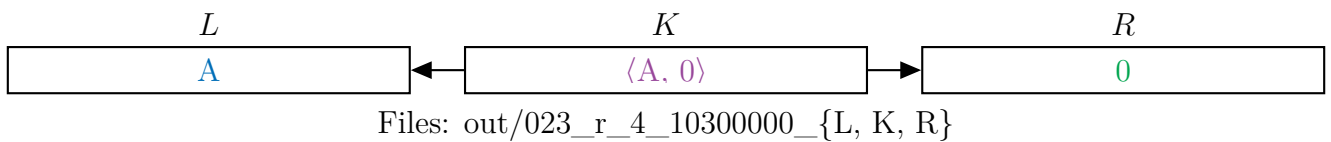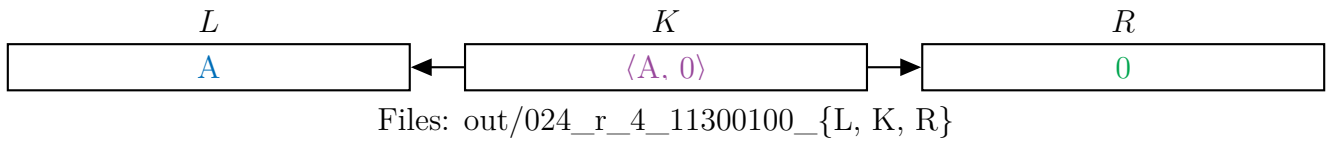Files: out/019_r_3_11300100_{L, K, R}

File: out/020_r_3_combined

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

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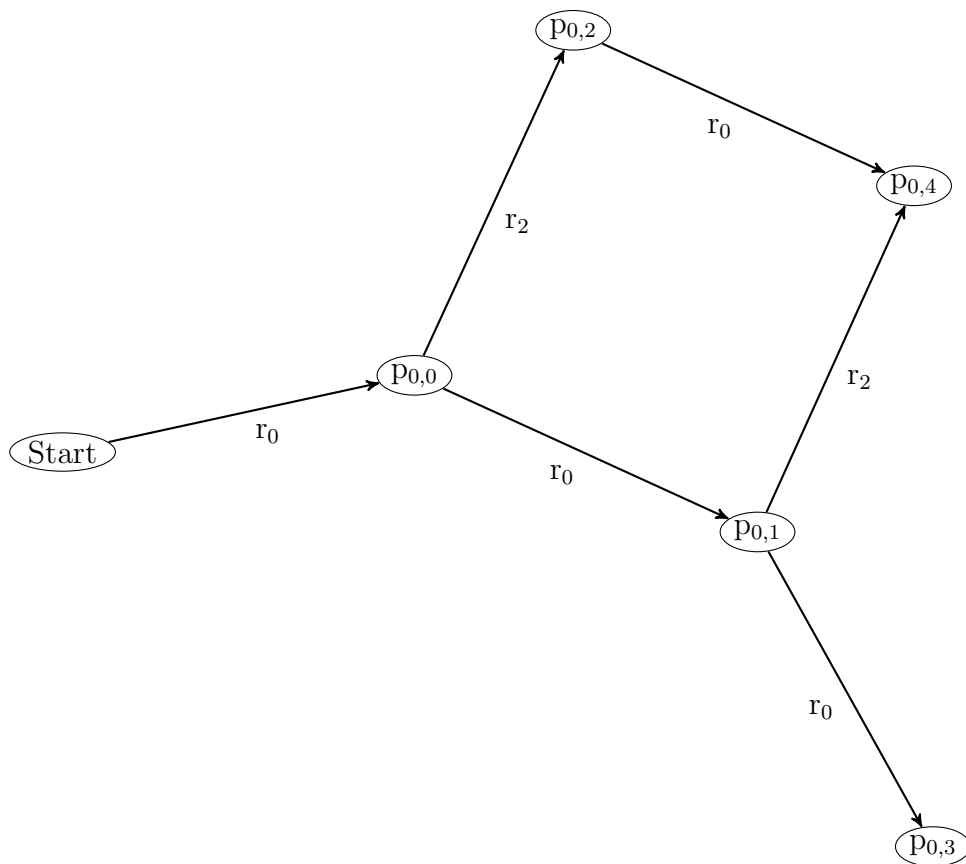$$\}| = 0$$

0.2.5 unmarkCollapsedNode

Files: out/023_r_4_10300000_{L, K, R}

L	K	R
A	$\langle$A, 0$\rangle$	0

Files: out/024_r_4_11300100_{L, K, R}

A | 0

File: out/025_r_4_combined

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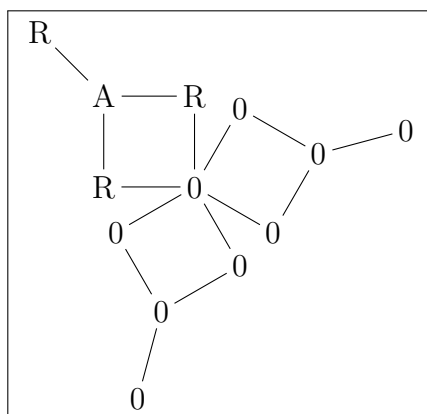$$\text{label}(\text{target}(e)) \in \{\text{`R'}\}$$
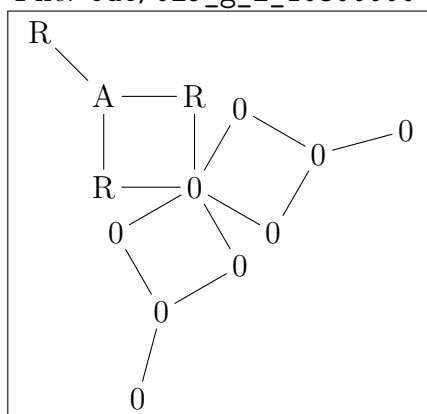$$\}| = 0$$

0.2.6 DG Hyper, `dg_0`

File: out/028_dg_0_10100
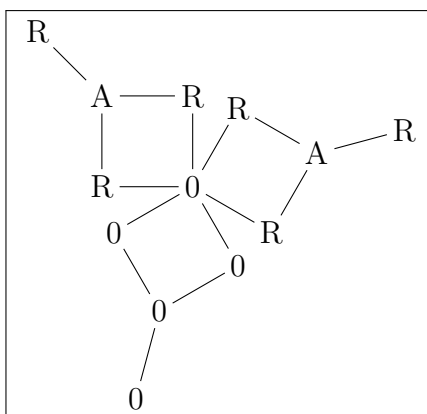
0.3 Product Graphs

0.3.1 p_{0,0}

File: out/029_g_2_10300000
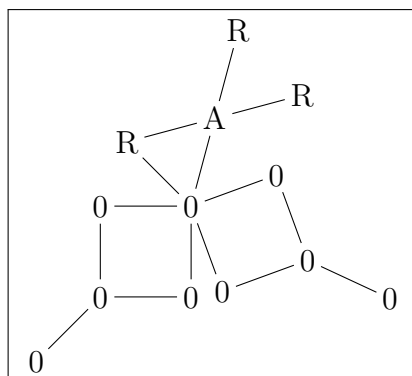

File: out/029_g_2_11310100
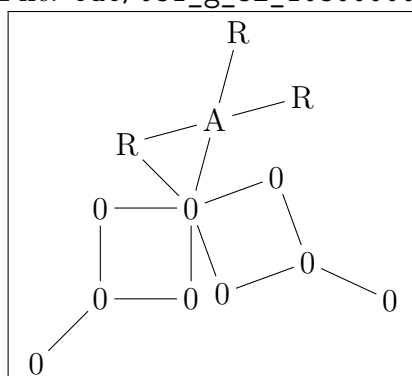
0.3.2 p_{0,1}

File: out/030_g_20_10300000
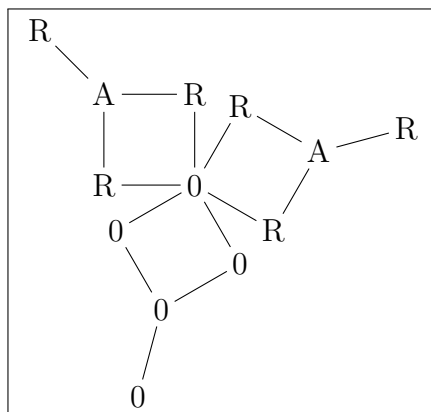
File: out/030_g_20_11310100

0.3.3 p_{0,2}

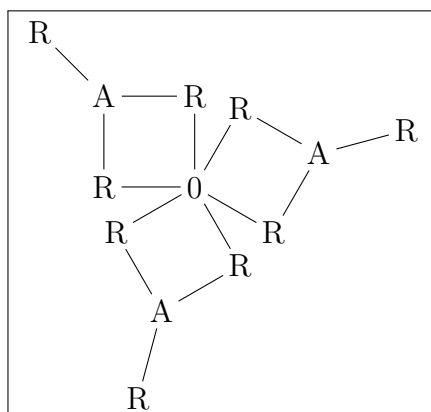File: out/031_g_32_10300000
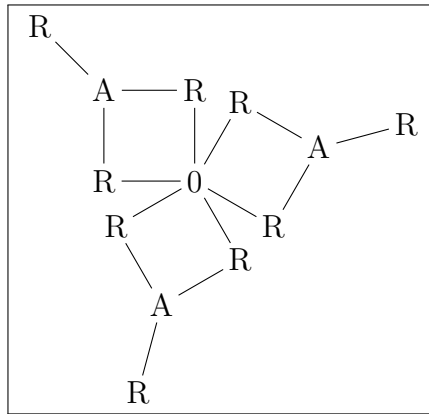

File: out/031_g_32_11310100

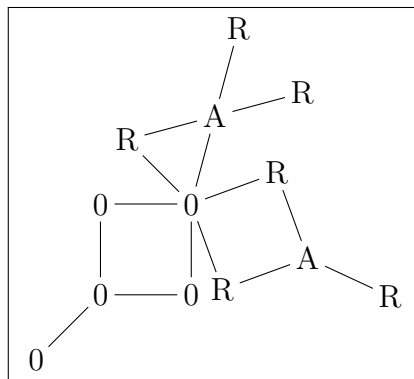### 0.3.4 p_{0,3}

File: out/032_g_34_10300000

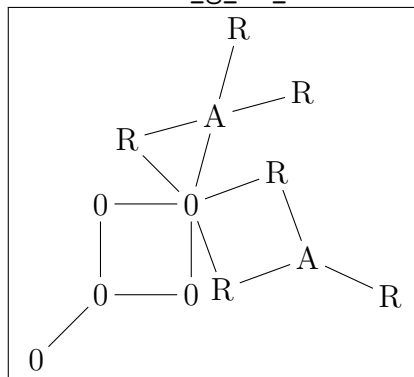File: out/032_g_34_11310100

0.3.5 p_{0,4}

File: out/033_g_40_10300000

File: out/033_g_40_11310100

0.4 Flow Solutions, id 0