


Benchmark

Algorithm 0:

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for  $g_1 \leftarrow 0: G_1^{(0)} \leftarrow G_1^{(0)} - 1$ 
for  $g_2 \leftarrow 0: G_2^{(0)} \leftarrow G_2^{(0)} - 1$ 
...
for  $g_1 \leftarrow 0: R_1^{(0)} \leftarrow R_1^{(0)} - 1$ 
for  $g_2 \leftarrow 0: R_2^{(0)} \leftarrow R_2^{(0)} - 1$ 
...
for  $c_1 \leftarrow 0: R_1^{(0)} \leftarrow R_1^{(0)} - 1$ 
for  $c_2 \leftarrow 0: R_2^{(0)} \leftarrow R_2^{(0)} - 1$ 
...
for  $c_1 \leftarrow 0: R_1^{(0)} \leftarrow R_1^{(0)} - 1$ 
for  $c_2 \leftarrow 0: R_2^{(0)} \leftarrow R_2^{(0)} - 1$ 
...
 $O(g_1, g_2, \dots, h_1, h_2, \dots, c_1, c_2, \dots)$ 
 $[g_1, g_2, \dots, h_1, h_2, \dots, c_1, c_2, \dots] \in W[g_1, g_2, \dots, h_1, h_2, \dots, c_1, c_2, \dots]$ 

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A green arrow button pointing to the right with the word "Unroll" written inside in black text.

Unrolling instances

[illegible]

Projection

Projection instances


$$\{ \langle \rangle, \langle \rangle, \dots, \langle \rangle \}$$

A projection


Algorithm 1:

$$\begin{aligned} \text{for } g_0 &\leftarrow 0: C_0^{(0,0)}, C_0^{(0,1)}, \dots, C_0^{(0,n-1)} \\ \text{for } g_1 &\leftarrow 0: C_1^{(0,0)}, C_1^{(0,1)}, \dots, C_1^{(0,n-1)} \\ &\vdots \\ \text{for } g_{i-1} &\leftarrow 0: C_{i-1}^{(0,0)}, C_{i-1}^{(0,1)}, \dots, C_{i-1}^{(0,n-1)} \\ \text{for } g_i &\leftarrow 0: C_i^{(0,0)}, C_i^{(0,1)}, \dots, C_i^{(0,n-1)} \\ &\vdots \\ \text{for } g_{i-2} &\leftarrow 0: C_{i-2}^{(0,0)}, C_{i-2}^{(0,1)}, \dots, C_{i-2}^{(0,n-1)} \\ \text{for } g_{i-1} &\leftarrow 0: C_{i-1}^{(0,0)}, C_{i-1}^{(0,1)}, \dots, C_{i-1}^{(0,n-1)} \\ &\vdots \\ \text{for } g_1 &\leftarrow 0: C_1^{(0,0)}, C_1^{(0,1)}, \dots, C_1^{(0,n-1)} \\ \text{for } g_0 &\leftarrow 0: C_0^{(0,0)}, C_0^{(0,1)}, \dots, C_0^{(0,n-1)} \end{aligned}$$

$O(g_0, g_1, \dots, g_{i-2}, g_{i-1}, g_i, \dots, g_{i-1}, g_i, \dots, g_1, g_0)$
 $O(g_0, g_1, \dots, g_{i-2}, g_{i-1}, g_i, \dots, g_{i-1}, g_i, \dots, g_1, g_0) \times W$



Unroll



Projection


$$\{ \langle \rangle, \langle \rangle, \dots, \langle \rangle \}$$

Selection


$$\{ \langle \rangle, \langle \rangle, \dots, \langle \rangle \}$$

Generation

Algorithm N

[illegible]A green arrow pointing right with the word "Unroll" written inside in black text.

A diagram showing two large squares and three small circles. The two large squares are on the left, and the three small circles are on the right. The circles are arranged in a horizontal row between the two squares.



Projection

$$\{ \langle \rangle, \langle \rangle, \dots, \langle \rangle \}$$

Selected projections

Projections	Configurations
P0 < >	Config 0
P1 < >	Config 1
P2 < >	Config 2
⋮	⋮

MLBlock-M

