n_in = 16
n_out = 8

data

$$n\_in$$

weights

$$n\_out$$

$$n\_in$$

$$n\_in * n\_out$$

biases

$$n\_out$$
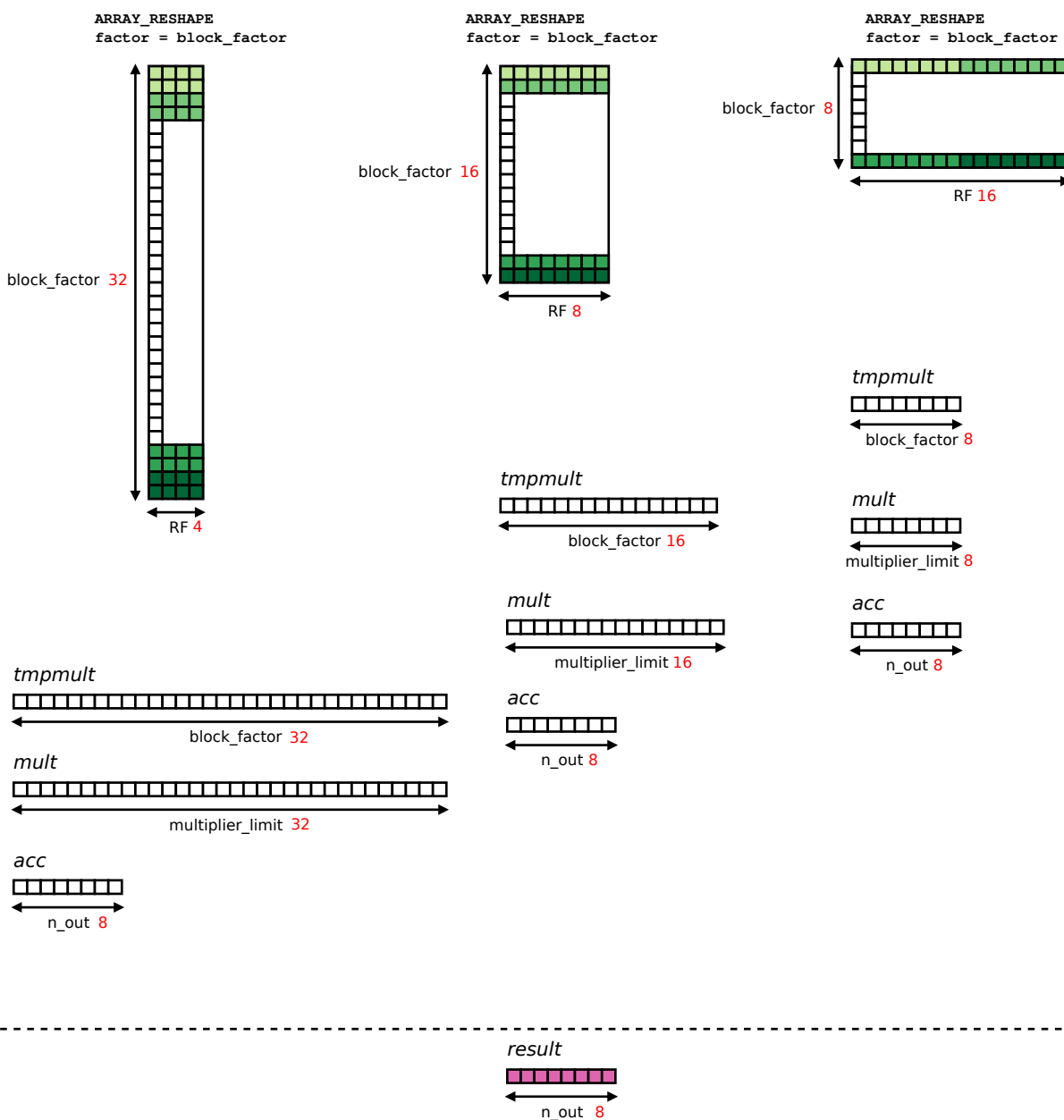
$$block\_factor = \left\lceil \frac{n\_in * n\_out}{RF} \right\rceil \qquad multiplier\_limit = \left\lceil \frac{n\_in * n\_out}{min(n\_in, RF)} \right\rceil$$

RF=4   RF=8   RF=16

- -

ARRAY_RESHAPE
factor = block_factor

ARRAY_RESHAPE
factor = block_factor

ARRAY_RESHAPE
factor = block_factor

block_factor 8

RF 16

block_factor 32

block_factor 16

RF 8

RF 4

tmpmult

block_factor 8

mult

multiplier_limit 8

acc

n_out 8

tmpmult

block_factor 16

mult

multiplier_limit 16

acc

n_out 8

tmpmult

block_factor 32

mult

multiplier_limit 32

acc

n_out 8

- -

result

n_out 8

Two different visualizations of MultLoop