

Alphabetic List of Paths

Standard Dictionary for Path Semantics

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A

add[(= 0)] \Leftrightarrow and
add[(\neg = 0)] \Leftrightarrow or
add[even] \Leftrightarrow eq
add[odd] \Leftrightarrow xor
add[neg] \Leftrightarrow add
add[swap \rightarrow id] \Leftrightarrow add
and[not] \Leftrightarrow or

C

concat[len] \Leftrightarrow add
concat[sum] \Leftrightarrow add
concat[min] \Leftrightarrow min₂
concat[max] \Leftrightarrow max₂
cross{[vec_dim] 3, [vec_dim] 3}[unit \times unit \rightarrow vec_dim] \Leftrightarrow construct₃

D

dec{(\neg = 0)}[even] \Leftrightarrow not
div _{\mathbb{R}} {(\neg = 0), (\neg = 0)}[swap \rightarrow id] \Leftrightarrow inv \cdot div

E

eq[not] \Leftrightarrow xor
exc[not] \Leftrightarrow nrexc

I

id[id] \Leftrightarrow id
id_A[id \rightarrow f] \Leftrightarrow f $f : A \rightarrow B$
id_A[f] \Leftrightarrow id_B $f : A \rightarrow B$
id_A[f \rightarrow id_A] \Leftrightarrow f⁻¹ $f : A \rightarrow B$
inc[even] \Leftrightarrow not
inc[inc] \Leftrightarrow inc

M

mat_id[id → trace] <=> id
mat_inv{[det] (¬= 0)}[id → mat_inv] <=> id
mat_mul[det] <=> mul
mat_mul[fst · dim × snd · dim → dim] <=> id
mul_ℕ[(= 0)] <=> or
mul_ℕ[(¬= 0)] <=> and
mul_ℕ{(>= 0), (>= 0)}[(>= 0)] <=> true₁
mul_ℕ{(¬= 1), (¬= 1)}[prime] <=> false₁
mul_ℕ[(% k: (¬= 0))] <=> (% k) · mul_ℕ
mul_ℕ[even] <=> or
mul_ℕ[odd] <=> and
mul_ℝ[neg → id] <=> mul_ℕ
mul[swap → id] <=> mul

N

nand[not] <=> nor
nexc[not] <=> rexc
nor[not] <=> nand
not[not] <=> not
nrex[not] <=> exc

O

or[not] <=> and
not[not] <=> not

P

push[len × unit → len] <=> inc
push[sum × id → sum] <=> add
push[max × id → max] <=> max₂
push[min × id → min] <=> min₂
pop{[len] (¬= 0)}[len → len · fst] <=> dec
pop{[len] (¬= 0)}[(sum, snd · pop) → sum · fst] <=> sub
pop{[len] (¬= 0)}[(sum, fst · pop) → sum · snd] <=> sub

R

rex[not] <=> nex

S

$\text{sort}_f[\text{unit} \rightarrow \text{sorted}_f] \leq \text{true}_1$

$\text{split}(_)[\text{id} \rightarrow \text{join}] \leq \text{id}$

$\text{sub}_{\mathbb{R}}[\text{swap} \rightarrow \text{id}] \leq \text{neg}$

T

$\text{transpose}[\text{el}(i, j) \rightarrow \text{el}(j, i)] \leq \text{id}$

$\text{transpose}[\text{dim}] \leq \text{swap}$

U

$\text{unit}[\text{unit}] \leq \text{unit}$

X

$\text{xor}[\text{not}] \leq \text{eq}$