Parametric diagram

2026-11-19 · `examples/types/sysml-parametric.json`

3 views · 2 cards · 13 lines

Contents

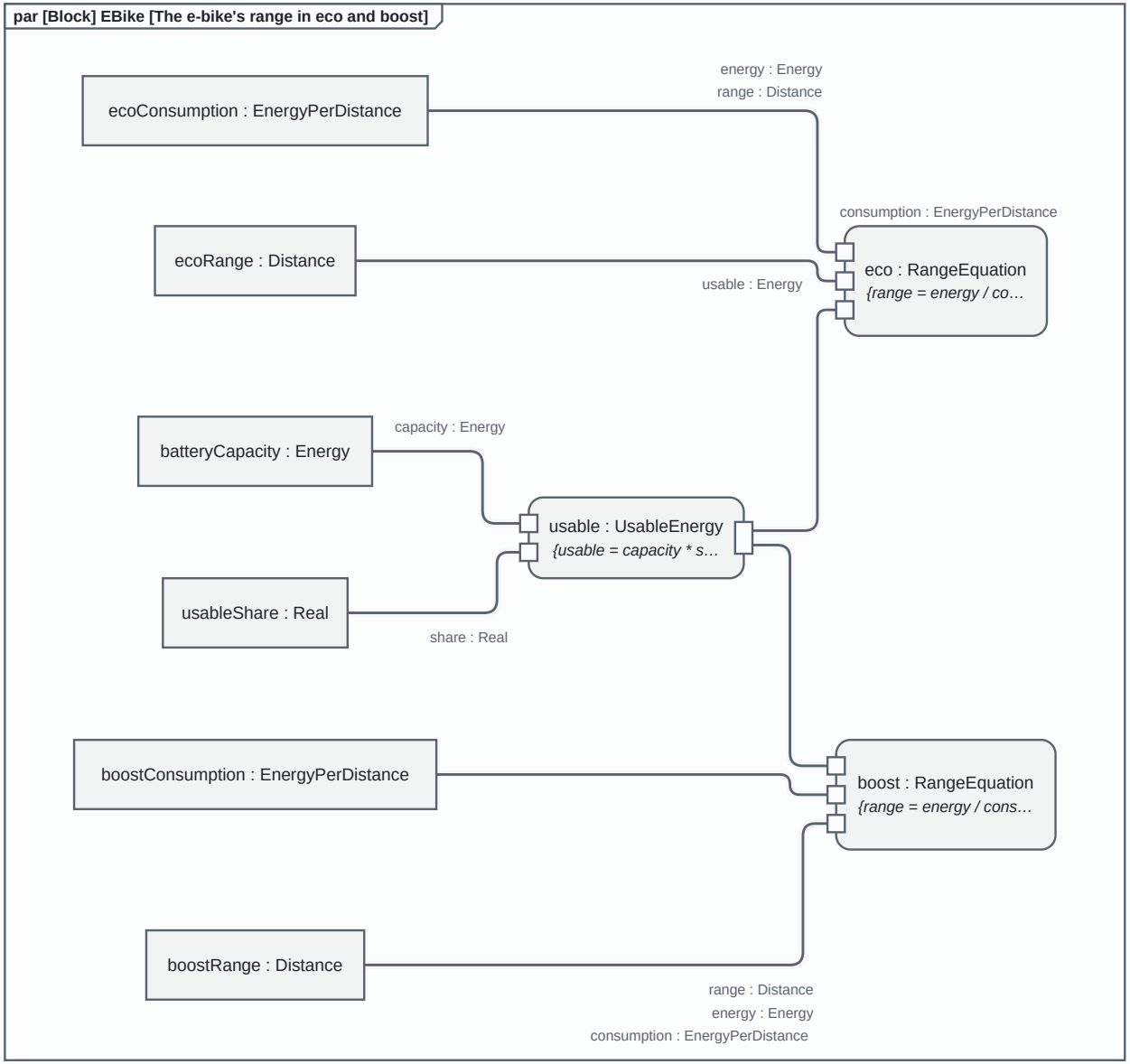
The e-bike's range in eco and boost 2

The same analysis, laid out down 3

TripRange, a constraint block as the frame 5

The e-bike's range in eco and boost

1 card · 8 lines



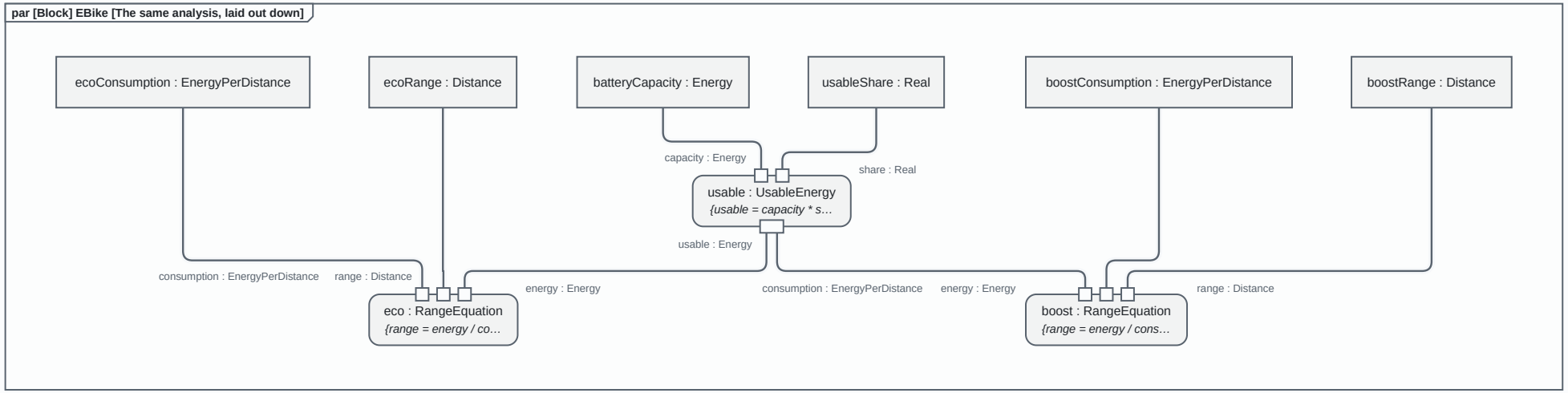
Legend — **Binding** the two ends have equal values

Elements 1

Card	Kind	Members
EBike	Block	batteryCapacity : Energy usableShare : Real ecoConsumption : EnergyPerDistance boostConsumption : EnergyPerDistance ecoRange : Distance boostRange : Distance usable : UsableEnergy eco : RangeEquation boost : RangeEquation

Lines 8

From → to	Label	Kind
batteryCapacity : Energy → usable : UsableEnergy	batteryCapacity to capacity of usable	Binding connector
usableShare : Real → usable : UsableEnergy	usableShare to share of usable	Binding connector
usable : UsableEnergy → eco : RangeEquation	usable of usable to energy of eco	Binding connector
usable : UsableEnergy → boost : RangeEquation	usable of usable to energy of boost	Binding connector
ecoConsumption : EnergyPerDistance → eco : RangeEquation	ecoConsumption to consumption of eco	Binding connector
boostConsumption : EnergyPerDistance → boost : RangeEquation	boostConsumption to consumption of boost	Binding connector
ecoRange : Distance → eco : RangeEquation	ecoRange to range of eco	Binding connector
boostRange : Distance → boost : RangeEquation	boostRange to range of boost	Binding connector



Legend —— **Binding** the two ends have equal values

Elements 1

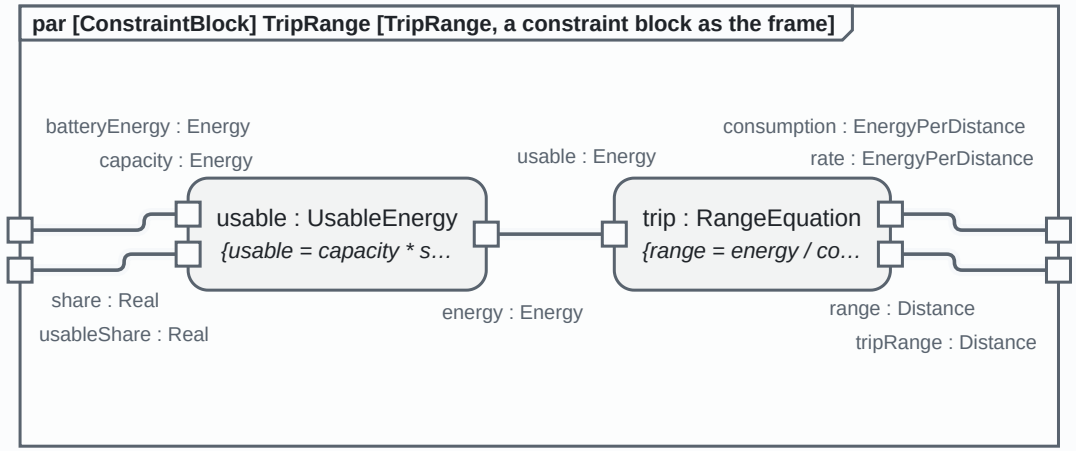
Card	Kind	Members
EBike	Block	batteryCapacity : Energy usableShare : Real ecoConsumption : EnergyPerDistance boostConsumption : EnergyPerDistance ecoRange : Distance boostRange : Distance usable : UsableEnergy eco : RangeEquation boost : RangeEquation

Lines 8

From → to	Label	Kind
batteryCapacity : Energy → usable : UsableEnergy	batteryCapacity to capacity of usable	Binding connector
usableShare : Real → usable : UsableEnergy	usableShare to share of usable	Binding connector
usable : UsableEnergy → eco : RangeEquation	usable of usable to energy of eco	Binding connector
usable : UsableEnergy → boost : RangeEquation	usable of usable to energy of boost	Binding connector
ecoConsumption : EnergyPerDistance → eco : RangeEquation	ecoConsumption to consumption of eco	Binding connector
boostConsumption : EnergyPerDistance → boost : RangeEquation	boostConsumption to consumption of boost	Binding connector

Lines 8 (continued)

From → to	Label	Kind
ecoRange : Distance → eco : RangeEquation	ecoRange to range of eco	Binding connector
boostRange : Distance → boost : RangeEquation	boostRange to range of boost	Binding connector



Legend — **Binding** the two ends have equal values

Elements 1

Card	Kind	Members
TripRange	Constraint block	param batteryEnergy : Energy param usableShare : Real param rate : EnergyPerDistance param tripRange : Distance usable : UsableEnergy trip : RangeEquation

Lines 5

From → to	Label	Kind
— TripRange → usable : UsableEnergy	batteryEnergy to capacity of usable	Binding connector
— TripRange → usable : UsableEnergy	usableShare to share of usable	Binding connector
— usable : UsableEnergy → trip : RangeEquation	usable of usable to energy of trip	Binding connector
— TripRange → trip : RangeEquation	rate to consumption of trip	Binding connector
— TripRange → trip : RangeEquation	tripRange to range of trip	Binding connector