

1 Variables

2 root

	var	symbol	documentation	type	units	tokens	eqs
5	$F_{N,A}$	F	incidence matrix of directed graph	network		[]	
1	t_N	t	time	frame	s	[]	
3	to_N	to	initial time	frame	s	[]	1
4	te_N	te	end time	frame	s	[]	2
2	$value$	value	numerical value	constant		[]	

3 System

	var	symbol	documentation	type	units	tokens	eqs
17	\hat{x}_N^a	fx_a	flow of x with mechanism a	transport	ms^{-1}	[]	12
18	\hat{x}_N^b	fx_b	flow of x with mechanism b	transport	ms^{-1}	[]	13
6	x_N	x	state	state	m	[]	15
15	π_N^a	pi_a	effort a	state	m	[]	10
16	π_N^b	pi_b	effort b	state	m	[]	11
19	\dot{x}_N	dx	differential state	state	ms^{-1}	[]	14
10	ν	nu	frequency	constant	s^{-1}	[]	
11	K	K	frequency a	constant	s^{-1}	[]	6
12	L	L	frequency b	constant	s^{-1}	[]	7
13	M	M	a transport constant	constant		[]	8
14	N	N	a transport constant	constant		[]	9

4 Properties

	var	symbol	documentation	type	units	tokens	eqs
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5 Control

	var	symbol	documentation	type	units	tokens	eqs
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6 System-Properties

	var	symbol	documentation	type	units	tokens	eqs
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7 Properties-System

	var	symbol	documentation	type	units	tokens	eqs
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8 System-Control

	var	symbol	documentation	type	units	tokens	eqs
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9 Control-System

	var	symbol	documentation	type	units	tokens	eqs
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10 Properties-Control

	var	symbol	documentation	type	units	tokens	eqs
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11 Control-Properties

	var	symbol	documentation	type	units	tokens	eqs
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12 Equations

12.1 Model equations

no	equation	documentation	layer
1	$to_N := Set(t_N, value)$	initial time	root
2	$te_N := Set(t_N, value)$	end time	root
6	$K := Set(\nu, value)$	frequency a	System
7	$L := Set(\nu, value)$	frequency b	System
8	$M := Set(value, value)$	a transprort constant	System
9	$N := Set(value, value)$	a transport constant	System
10	$\pi^a_N := M . x_N$	effort a	System
11	$\pi^b_N := N . x_N$	effort b	System
12	$\hat{x}^a_N := F_{N,A} \overset{A}{\star} \left(K . F_{N,A} \overset{N}{\star} \pi^a_N \right)$	flow of x with mechanism a	System
13	$\hat{x}^b_N := F_{N,A} \overset{A}{\star} \left(K . F_{N,A} \overset{N}{\star} \pi^b_N \right)$	flow of x with mechanism b	System
14	$\dot{x}_N := \hat{x}^a_N + \hat{x}^b_N$	differential state	System
15	$x_N := \int_{to_N}^{te_N} \dot{x}_N \, dt_N$	state	System