Equation assignment sequence for variable $U^{e,circuit}$

no	var	equ	quations	token
84	12	-	S_N :: port variable	
83	26	-	A^v :: port variable	
82	64	-	$P_{NS,KS}$ :: port variable	
81	9	-	r_{xN} :: port variable	
80	88	-	$K^o{}_K$ :: port variable	
79	62	-	$P_{N,NK}$ :: port variable	
78	127	-	$D_{N,A}$ :: port variable	
77	23	-	r_{zN} :: port variable	
76	10	-	r_{yN} :: port variable	
75	86	-	$N_{S,K}$ :: port variable	
74	61	-	$P_{S,NS}$ :: port variable	
73	60	-	$P_{K,NK}$ :: port variable	
72	63	-	$P_{NK,KS}$ :: port variable	
71	59	-	$P_{NS,AS}$ :: port variable	
70	5	-	$F_{N,A}$ :: port variable	
69	128	-	$D_{NS,AS}$ :: port variable	
68	164	-	1_{NS} :: port variable	
67	13	-	V_N :: port variable	

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no	var	equ	quations	token
66	177	-	$P_{N,NS}$ :: port variable	
65	6	-	t :: port variable	
64	159	-	C_N :: port variable	
63	11	-	U_N :: port variable	
62	1	-	$\#$ :: port variable	
61	170	-	1_N :: port variable	
60	27	16	$Bo_N := \text{Instantiate}(S_N, \#)$	
59	69	47	$m_N := \lambda_S \overset{S \in NS}{\star} n_{NS}$	
58	29	142	$\lambda_S := \text{Instantiate}(\lambda_S, \#)$	
57	16	7	$T_N := \frac{\partial U_N}{\partial S_N}$	
56	16	113	$T_N := \text{Instantiate}(T_N, \#)$	
55	87	64	$E_{aNK} := \text{Instantiate}(P_{N,NK} \overset{N}{\star} R_N \,.\, T_{NK}, \#)$	
54	28	17	$R_N := A^v \,.\, Bo_N$	
53	115	91	${c^o}_{KS} := \text{Instantiate}(c_{KS}, \#)$	
52	114	90	$c_{KS} := c_{NS} \overset{NS}{\star} P_{NS,KS}$	
51	71	154	$\rho_N := \text{Instantiate}(\rho_N, \#)$	
50	71	49	$\rho_N := m_N \,.\, (V_N)^{-1}$	
49	50	134	$k^c_{xN} := \text{Instantiate}(k^c_{xN}, \#)$	
48	50	37	$k^c_{xN} := \left(\lambda_S \overset{S \in NS}{\star} (\mu_{NS})^{-1}\right) \,.\, (V_N)^{-1} \,.\, \frac{\partial U_N}{\partial p_N} \,.\, v_{xN}$	
47	15	6	$p_N := \left(-\frac{\partial U_N}{\partial V_N}\right)$	

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no	var	equ	quations	token
46	15	115	$p_N := \text{Instantiate}(p_N, \#)$	
45	65	46	$d_A := \text{sign}\left(F_{N,A} \overset{N}{\star} p_N\right)$	
44	4	3	$0.5 := \text{Instantiate}(\#, \#)$	
43	21	12	$v_{xN} := \frac{\partial r_{xN}}{\partial t}$	
42	77	55	$T_{NK} := P_{N,NK} \overset{N}{\star} T_N$	
41	89	65	$K_{NK} := {K^o}_K \odot exp((-E_{aNK}) \,.\, \left(R_N \overset{N}{\star} P_{N,NK} \,.\, T_{NK}\right)^{-1})$	
40	116	92	$\phi_{KS} := \prod \left(c_{KS} \,.\, ({c^o}_{KS})^{-1}\right)$	
39	98	74	$\hat{V}_A := (\rho_N)^{-1} \,.\, k^c_{xN} \,.\, A_{yzN} \,.\, D_{N,A} \overset{N}{\star} p_N$	
38	109	85	$c_{AS} := (0.5 \,.\, (F_{NS,AS} - d_A \odot \lvert F_{NS,AS}\rvert)) \overset{NS}{\star} c_{NS}$	
37	95	71	$A_{yzN} := r_{yN} \,.\, r_{zN}$	
36	54	137	$k^d_{xNS} := \text{Instantiate}(k^d_{xNS}, \#)$	
35	54	41	$k^d_{xNS} := (\mu_{NS})^{-1} \,.\, \left(v_{xN} \odot \left((V_N)^{-1} \odot \frac{\partial U_N}{\partial \mu_{NS}}\right)\right)$	
34	45	114	$\mu_{NS} := \text{Instantiate}(\mu_{NS}, \#)$	
33	45	32	$\mu_{NS} := \frac{\partial U_N}{\partial n_{NS}}$	
32	93	69	$N_{NS,NK} := P_{S,NS} \overset{S}{\star} \left(\left(P_{K,NK} \,.\, T_{NK} \,.\, (T_{NK})^{-1}\right) \overset{K}{\star} N_{S,K}\right)$	
31	117	93	$\xi_{NK} := K_{NK} \,.\, P_{NK,KS} \overset{KS}{\star} \phi_{KS}$	
30	110	86	$\hat{n}^c{}_{AS} := \hat{V}_A \odot c_{AS}$	
29	73	51	$F_{NS,AS} := F_{N,A} \odot P_{NS,AS}$	
28	104	80	$\hat{n}^d{}_{AS} := A_{yzN} \odot \left(-k^d_{xNS}\right) \,.\, D_{NS,AS} \overset{NS}{\star} \mu_{NS}$	
27	118	94	$\tilde{n}_{NS} := V_N \odot \left(N_{NS,NK} \overset{NK}{\star} \xi_{NK}\right)$	

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no	var	equ	quations	token
26	111	87	$\hat{n}^c{}_{NS} := F_{NS,AS} \overset{AS}{\star} \hat{n}^c{}_{AS}$	
25	105	81	$\hat{n}^d{}_{NS} := F_{NS,AS} \overset{AS}{\star} \hat{n}^d{}_{AS}$	
24	8	5	$t_e := \text{Instantiate}(t, \#)$	
23	7	4	$t_o := \text{Instantiate}(t, \#)$	
22	150	124	$n^o{}_{NS} := \text{Instantiate}(n_{NS}, \#)$	
21	119	95	$\dot{n}_{NS} := \hat{n}^c{}_{NS} + \hat{n}^d{}_{NS} + \tilde{n}_{NS}$	
20	119	129	$\dot{n}_{NS} := \text{Instantiate}(\dot{n}_{NS}, 0)$	
19	42	116	$n_{NS} := \int_{t_o}^{t_e} \dot{n}_{NS} \; dt + n^o{}_{NS}$	
18	165	161	$n^t{}_N := 1_{NS} \overset{S \in NS}{\star} c_{NS}$	
17	108	127	$c_{NS} := \text{Instantiate}(c_{NS}, \#)$	
16	108	84	$c_{NS} := (V_N)^{-1} \odot n_{NS}$	
15	191	194	$k^{e,\xi}{}_N := \text{Instantiate}(k^{e,\xi}{}_N, \#)$	
14	183	179	$i_{NS} := P_{N,NS} \overset{N}{\star} i_N$	
13	166	162	$\xi_{NS} := (n^t{}_N)^{-1} \odot c_{NS}$	
12	187	198	$i := \mathit{Root}\,(i_N)$	
11	182	195	$k^e{}_N := k^{e,\xi}{}_N \overset{S \in NS}{\star} \xi_{NS}$	
10	182	178	$k^e{}_N := i_N \,.\, (U^e{}_N)^{-1}$	
9	185	181	$k^{e,\xi}{}_N := (U^e{}_N)^{-1} \,.\, \left(i_{NS} \overset{S \in NS}{\star} ln(\xi_{NS})\right)$	
8	173	197	$i_N := 1_N \,.\, i$	
7	173	196	$i_N := k^e{}_N \,.\, U^e{}_N$	

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no	var	equ	quations	token
6	173	168	$i_N := \frac{dC_N}{dt}$	
5	2	1	$0 := \text{Instantiate}(\#, \#)$	
4	160	182	$U^e{}_N := \left(k^{e,\xi}{}_N\right)^{-1} . i_N$	
3	160	156	$U^e{}_N := (C_N)^{-1} . U_N$	
2	160	177	$U^e{}_N := \text{Instantiate}(U^e{}_N, \#)$	
1	181	176	$U^{e,circuit}{}_N := \text{Instantiate}(U^{e,circuit}{}_N, 0)$	
0	181	175	$U^{e,circuit}{}_N := 1_N . U^e{}_N$	