

Type 1 SOPDT System Identification

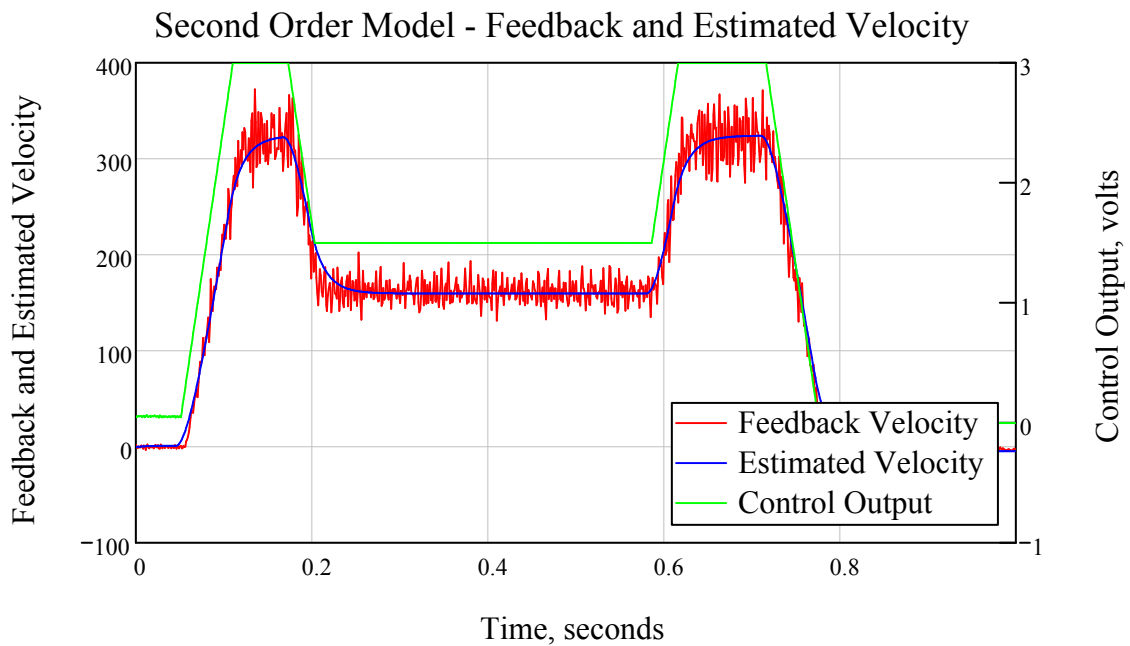
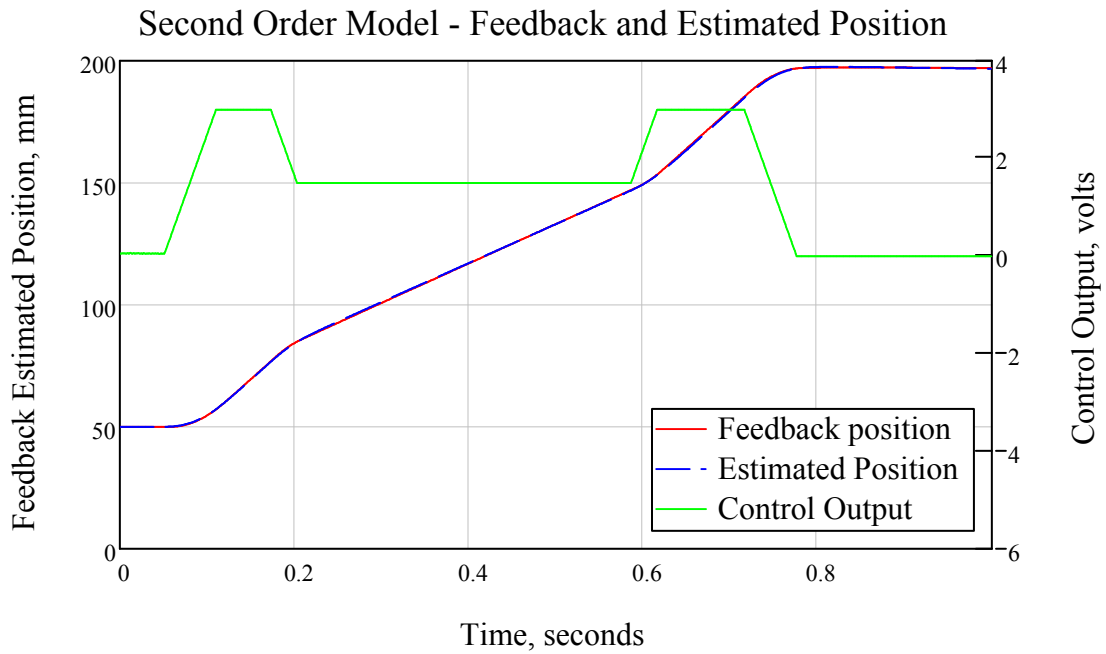
data :=

.\ImmPositive.t

data =

	0	1	2	3	4	5	6	7
0	0	49.992	49.992	-0.103	-0.103	0.054	C202844"	0
1	0.001	49.994	49.994	-0.144	-0.144	0.047	C202C44"	0
2	0.002	49.991	49.991	-0.116	-0.116	0.057	C202444"	0
3	0.003	49.992	49.992	-0.035	-0.035	0.054	C202C44"	0
4	0.004	49.992	49.992	0.022	0.022	0.054	C202844"	0
5	0.005	49.991	49.991	0.015	0.015	0.057	C202444"	0
6	0.006	49.991	49.991	-0.045	-0.045	0.057	C202844"	0
7	0.007	49.994	49.994	-0.122	-0.122	0.047	C202C44"	0
8	0.008	49.991	49.991	-0.149	-0.149	0.057	C202444"	0
9	0.009	49.99	49.99	-0.101	-0.101	0.06	C202444"	0
10	0.01	49.994	49.994	-0.045	-0.045	0.047	C202C44"	0
11	0.011	49.991	49.991	-0.015	-0.015	0.057	C202444"	0
12	0.012	49.988	49.988	-0.002	-0.002	0.066	C202444"	0
13	0.013	49.992	49.992	-0.051	-0.051	0.054	C202C44"	0
14	0.014	49.993	49.993	-0.167	-0.167	0.05	C202C44"	0
15	0.015	49.992	49.992	-0.219	-0.219	0.054	C202444"	0
16	0.016	49.99	49.99	-0.124	-0.124	0.06	C202444"	0
17	0.017	49.993	49.993	0.033	0.033	0.05	C202C44"	0
18	0.018	49.991	49.991	0.141	0.141	0.057	C202444"	0
19	0.019	49.992	49.992	0.177	0.177	0.054	C202C44"	0
20	0.02	49.992	49.992	0.162	0.162	0.054	C202844"	0

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$K = 109.613815$ $\zeta = 2.729251$ $\omega_n = 328.374594$ $\theta_p = -0.006397$ $C = -0.04214$ $ERR = 7.068971$

$$\text{poles} = \begin{pmatrix} -1730.107793 \\ -62.325523 \end{pmatrix}$$

If both poles are real and one is much larger than the other then the system should be modeled as a single pole system using the poles closest to the origin.

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