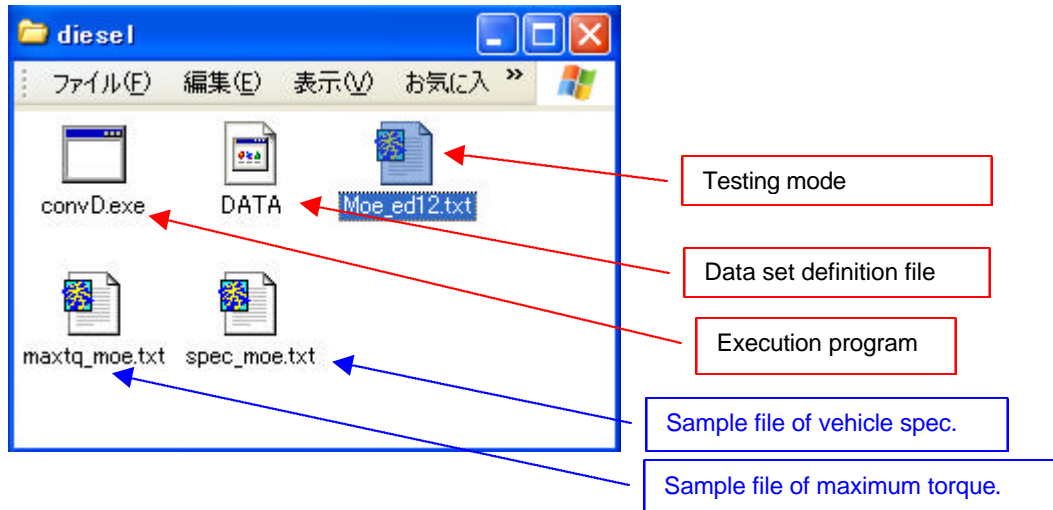


Instruction manual - Diesel Engine -

1 . How to use

Construction of transformation program



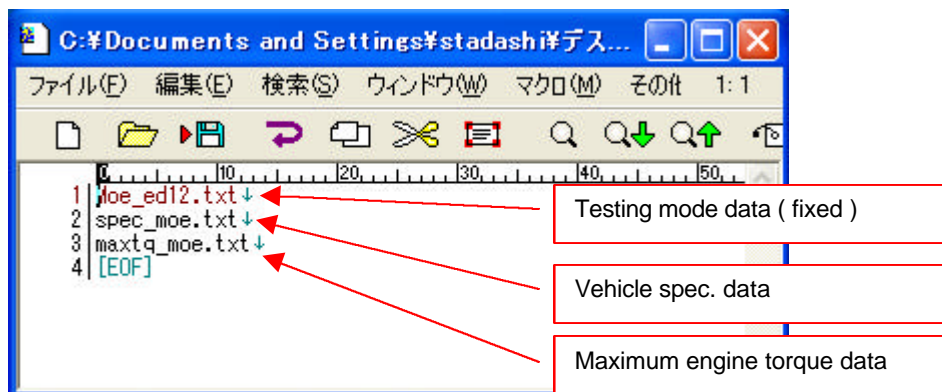
Edit a vehicle specification and maximum engine torque.

How to edit refers 2.- 3.

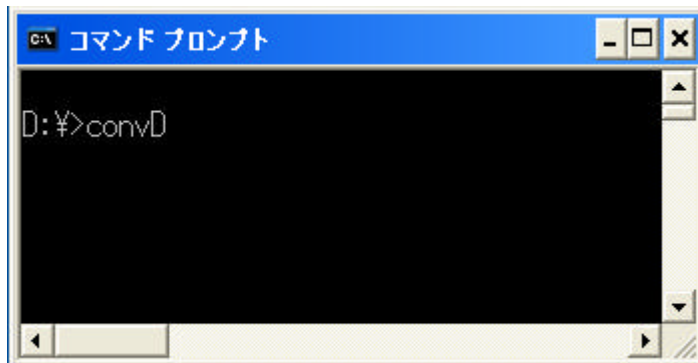
Sample file

vehicle specification data : example) spec_moe.txt
maximum engine torque data : example) maxtq_moe.txt

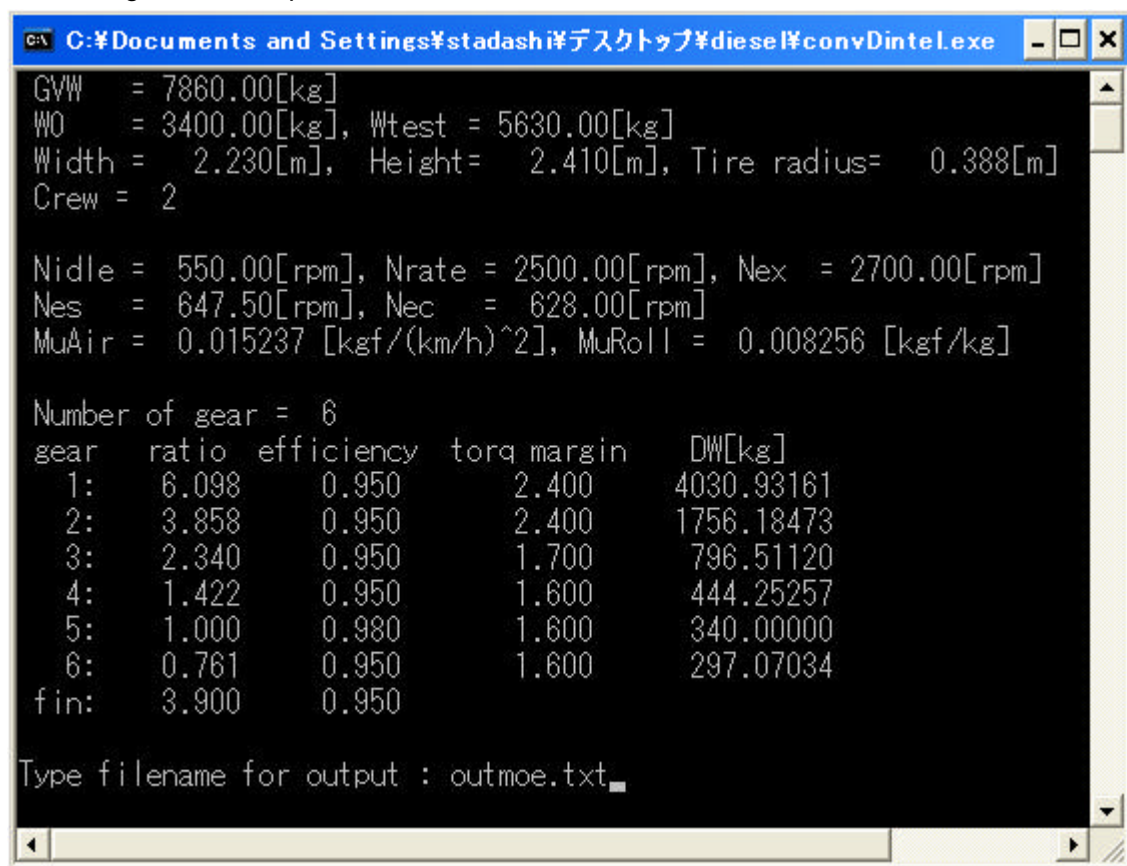
Make dataset definition file. **File name must be "DATA".**



Execute program "convD.exe".



Designate the output filename



The output data format refers 4.

2 . Input data of vehicle spec.

3400	! curb vehicle mass (kg)
4350	! payload (kg)
2	! crew (persons)
2.41	! overall height (m)
2.23	! overall width (m)
0.388	! tire rolling radius (m)
6	! number of gear
6.098	! 1st gear ratio
3.858	! 2nd gear ratio
2.34	! 3rd gear ratio
1.422	! 4th gear ratio
1	! 5th gear ratio
0.761	! 6th gear ratio
3.9	! final gear ratio
550	! idling engine speed (rpm)
2500	! rated engine speed (rpm)
2700	! governed engine speed (rpm)

3 . Input data of maximum engine torque

engine speed : 5% normalized engine speed – governed engine speed

rev(rpm)	torque(Nm)
542	482
551	482
559	484
568	489
574	496
583	502
590	506
598	509
605	514
.	.
.	.
2801	366
2809	350
2816	334
2825	320
2833	308
2840	295
2849	292
2855	251
2864	201
2872	157
2879	107
2888	68
2898	24

4 . Output data format

time (s)	Vtarget (km/h)	Vreal(km/h)	Ne (rpm)	Te (N-m)	n_norm (%)	T_norm (%)	shift
0	0	0	500.0	0.0	0	0	0
1	0	0	500.0	0.0	0	0	0
2	0	0	500.0	0.0	0	0	0
3	0	0	500.0	0.0	0	0	0
4	0	0	500.0	0.0	0	0	0
5	0	0	500.0	0.0	0	0	0
6	0	0	500.0	0.0	0	0	0
7	0	0	500.0	0.0	0	0	0
8	0	0	500.0	0.0	0	0	0
9	0	0	500.0	0.0	0	0	0
10	0	0	500.0	0.0	0	0	0
11	0	0	500.0	0.0	0	0	0
12	0	0	500.0	0.0	0	0	0
13	0	0	500.0	0.0	0	0	0
14	0	0	500.0	0.0	0	0	0
15	0	0	500.0	0.0	0	0	0
16	0	0	500.0	0.0	0	0	0
17	0	0	500.0	0.0	0	0	0
18	0	0	500.0	0.0	0	0	0
19	0	0	500.0	0.0	0	0	0
20	0	0	500.0	0.0	0	0	0
21	0	0	500.0	0.0	0	0	0
22	0	0	500.0	0.0	0	0	0
23	0	0	500.0	0.0	0	0	0
24	0	0	500.0	0.0	0	0	0
25	4.19	4.19	562.5	952.1	5	88.73	2
26	8.32	8.32	770.3	939.2	21.63	61.32	2
27	12.33	12.33	1141.6	913.4	51.33	50.64	2
28	16.05	16.05	1486.0	850.3	78.88	49.46	2
29	18.74	18.74	1020.3	864.8	41.62	47.56	3
30	20.28	20.28	1104.1	520.7	48.33	28.78	3

note) Vtarget : target speed
Vreal : real speed
Ne : engine speed
Te : engine torque
n_norm : normarized engine speed = (engine speed - idling engine speed)/(rated engine speed - idling engine speed)
T_norm : normarized engine torque = engine torque / maximum engine torque