

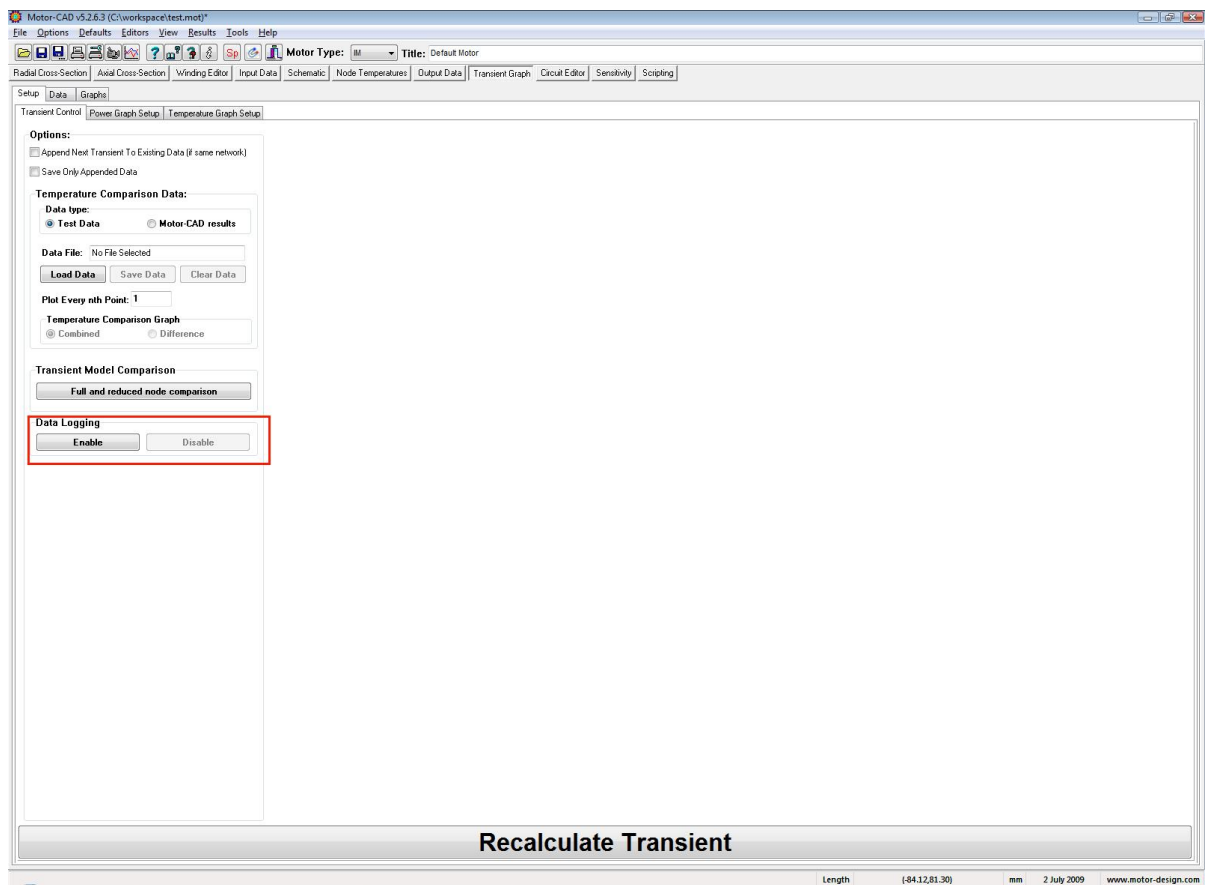
Motor-CAD Datalogging

Description

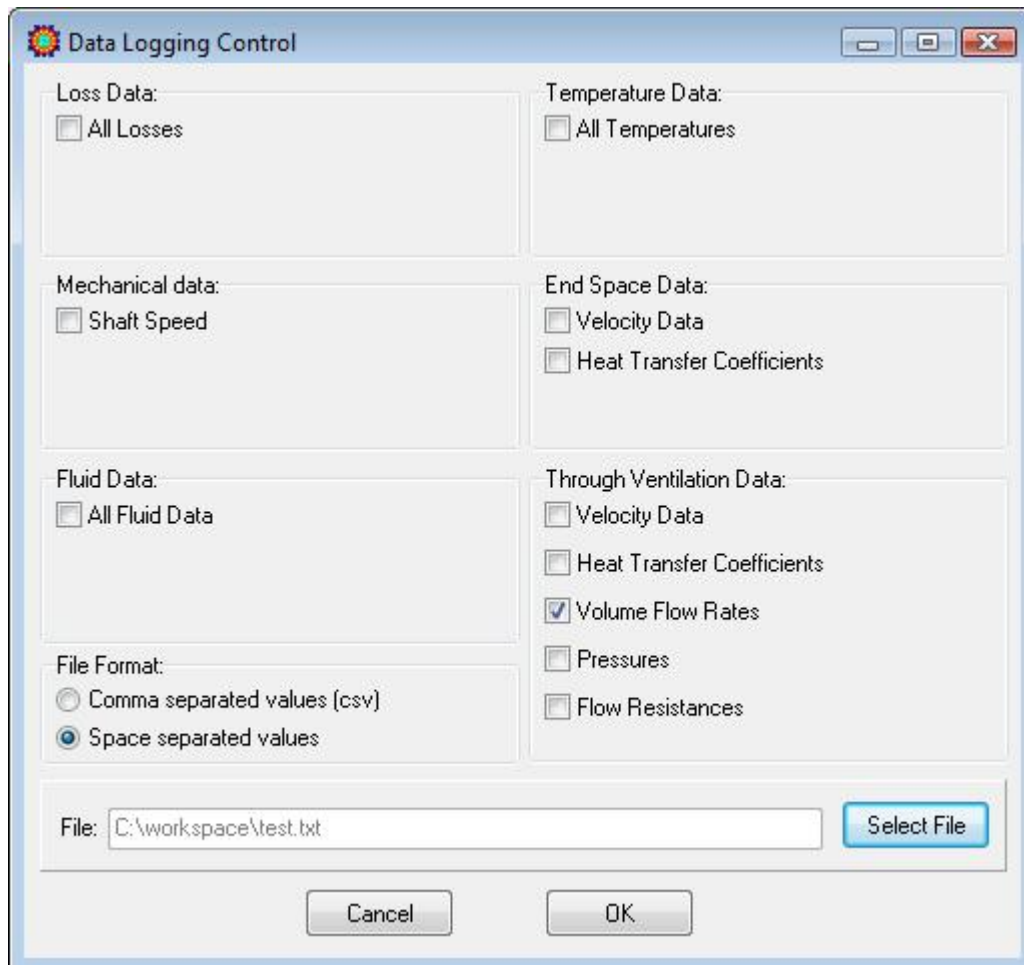
This document gives a brief description of how to use the datalogging feature of Motor-CAD to allow analysis of transient models. The datalogging feature writes the properties of the model to a text file to allow for analysis when the transient has completed.

Enabling Datalogging and selecting properties

Datalogging is enabled by clicking the button shown below:



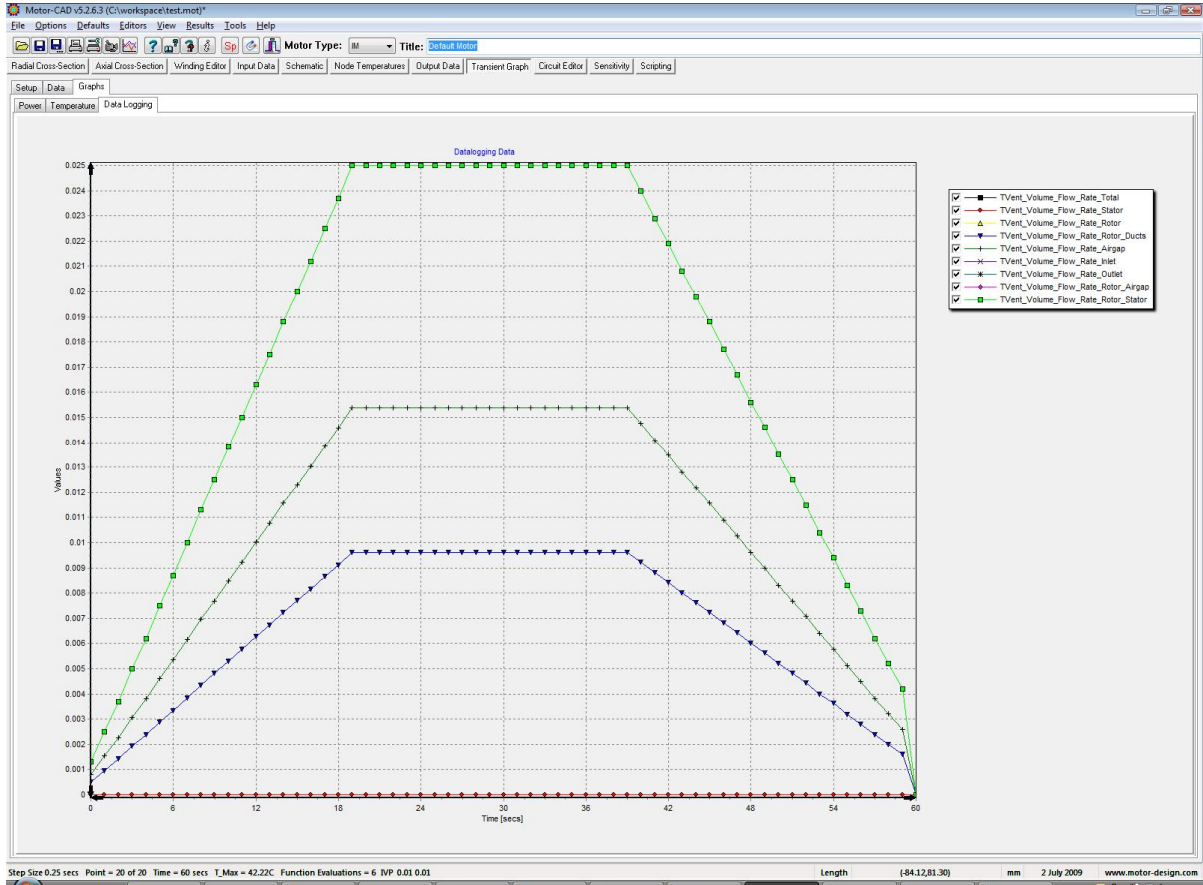
The transient is then run by clicking on the 'Recalculate Transient' button.



The file should be selected for the datalogging output. The tick boxes for the properties to be logged should be ticked.

When the 'OK' button is then clicked the transient will run.

After the transient has completed the values in the datalogging file can be viewed in Motor-CAD as shown below.



The values can also be viewed in the text file and analysed further outside Motor-CAD. The text file produced in this example is shown below.

```

test.txt - Notepad
File Edit Format View Help
DataLogging File 02/07/2009 10:09:41
Time      TVent_Volume_Flow_Rate_Total      TVent_Volume_Flow_Rate_Stator      TVent_Volume_Flow_Rate_Rotor      TVent_Volume_Flow_Rate_Rotor_Duc
1         0.0013                            0                                 0.0012999998515639              0.00050013829744443
2         0.0025                            0                                 0.00249999971453152            0.000961804418162391
3         0.0037                            0                                 0.00369999957750665            0.00142347053888034
4         0.005                               0                                 0.00499999942906304            0.00192360883632478
5         0.0062                            0                                 0.00619999929203818            0.00238527495704273
6         0.0075                            0                                 0.00749999914539457            0.0028941325448717
7         0.0087                            0                                 0.0086999990065697            0.00334707937520512
8         0.01                               0                                 0.00999999885812609            0.00384721767264956
9         0.0113                            0                                 0.01129999871068265            0.00434735397009401
10        0.0125                            0                                 0.0124999985726576             0.00480902209081196
11        0.0138                            0                                 0.013799998424214             0.0053091603882564
12        0.015                               0                                 0.0149999982871891            0.00577082509874535
13        0.0163                            0                                 0.0162999981387455            0.00627096480641879
14        0.0175                            0                                 0.0174999980017207            0.00673263092713674
15        0.0188                            0                                 0.0187999978532777            0.00723276922458118
16        0.02                               0                                 0.0199999977162522            0.00769443534529913
17        0.0212                            0                                 0.021199997592273             0.00815610146601707
18        0.0225                            0                                 0.0224999974307837            0.00863623976346152
19        0.0237                            0                                 0.0236999972937588            0.00911790588417947
20        0.025                               0                                 0.0249999971453152            0.00961804418162391
21        0.025                               0                                 0.0249999971453152            0.00961804418162391
22        0.025                               0                                 0.0249999971453152            0.00961804418162391
23        0.025                               0                                 0.0249999971453152            0.00961804418162391
24        0.025                               0                                 0.0249999971453152            0.00961804418162391
25        0.025                               0                                 0.0249999971453152            0.00961804418162391
26        0.025                               0                                 0.0249999971453152            0.00961804418162391
27        0.025                               0                                 0.0249999971453152            0.00961804418162391
28        0.025                               0                                 0.0249999971453152            0.00961804418162391
29        0.025                               0                                 0.0249999971453152            0.00961804418162391
30        0.025                               0                                 0.0249999971453152            0.00961804418162391
31        0.025                               0                                 0.0249999971453152            0.00961804418162391
32        0.025                               0                                 0.0249999971453152            0.00961804418162391
33        0.025                               0                                 0.0249999971453152            0.00961804418162391
34        0.025                               0                                 0.0249999971453152            0.00961804418162391
35        0.025                               0                                 0.0249999971453152            0.00961804418162391
36        0.025                               0                                 0.0249999971453152            0.00961804418162391
37        0.025                               0                                 0.0249999971453152            0.00961804418162391
38        0.025                               0                                 0.0249999971453152            0.00961804418162391
39        0.025                               0                                 0.0249999971453152            0.00961804418162391
40        0.025                               0                                 0.0249999971453152            0.00961804418162391
41        0.024                               0                                 0.0239999972593026            0.0092332241435895
42        0.0229                            0                                 0.0228999973851087            0.0088101284703675
43        0.0219                            0                                 0.0218999974992961            0.00842540670310254
44        0.0208                            0                                 0.0207999976249023            0.00800221275911109
45        0.0198                            0                                 0.0197999977390897            0.00761749099184614
46        0.0188                            0                                 0.0187999978532777            0.00723276922458118
47        0.0177                            0                                 0.0176999979788832            0.0068095752050973
48        0.0167                            0                                 0.0166999980930706            0.00642485351332477
49        0.0156                            0                                 0.0155999982186767            0.0060016595693332
50        0.0146                            0                                 0.0145999983328641            0.00561693780206836
51        0.0135                            0                                 0.0134999984584702            0.00519374385807691
52        0.0125                            0                                 0.0124999985726576            0.00480902209081196
53        0.0115                            0                                 0.011499998686845            0.00442430323547
54        0.0104                            0                                 0.0103999988124511            0.00400110637955555
55        0.0094                            0                                 0.00939999892663852            0.00361638461229059
56        0.0083                            0                                 0.00829999905244465            0.00319119066829914
57        0.0073                            0                                 0.00729999916643204            0.00280846890103418
58        0.0062                            0                                 0.00619999929203818            0.00238527495704273

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