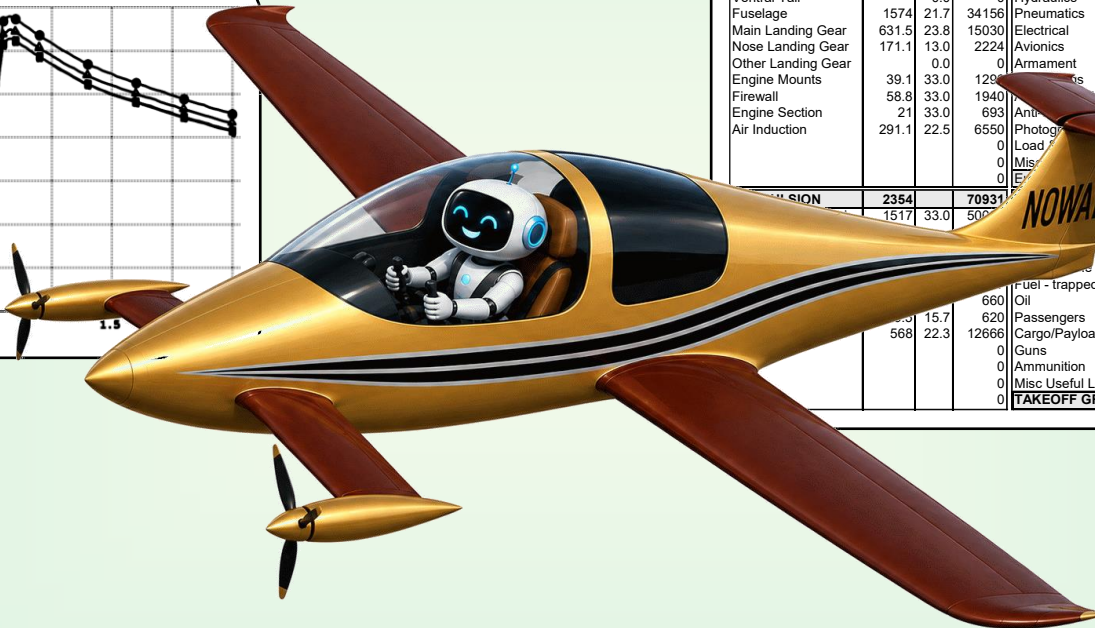
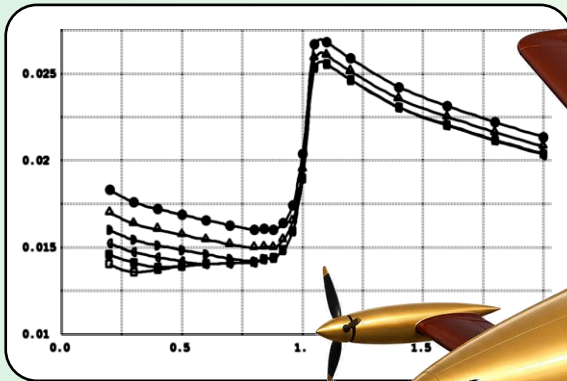


RDS^{win} Batch



	Weight lbs	Loc ft	Moment ft-lbs		Weight lbs	Loc ft	Moment ft-lbs
STRUCTURES	4526		106879	EQUIPMENT	4067		80646
Wing	1459.4	23.3	34004	Flight Controls	655.7	21.7	14229
Horizontal Tail	280.4	39.2	10992	APU		0.0	0
Vertical Tail		0	0	Instruments	122.8	10.0	1228
Ventral Tail		0.0	0	Hydraulics	171.7	21.7	3726
Fuselage	1574	21.7	34156	Pneumatics		21.7	0
Main Landing Gear	631.5	23.8	15030	Electrical	713.2	21.7	15476
Nose Landing Gear	171.1	13.0	2224	Avionics	989.8	10.0	9898
Other Landing Gear		0.0	0	Armament		0.0	0
Engine Mounts	39.1	33.0	1290	Weapons	217.6	6.2	1349
Firewall	58.8	33.0	1940	Interior	190.7	15.0	2860.5
Engine Section	21	33.0	693	Anti-icing			0
Air Induction	291.1	22.5	6550	Photography			0
				Load	5.3	15.0	79.5
				Miscellaneous	300	31.8	31800
				Empty Weight			12923
MISSION	2354		70931	EMPTY	11495	23.6	271379
	1517	33.0	50000				
					4985		
					220	15.0	3300
					3836	22.3	85551
				Fuel - trapped	39	22.3	864
				Oil	50	33.0	1650
				Passengers			0
				Cargo/Payload	840	21.7	18228
				Guns			0
				Ammunition	0	21.7	0
				Misc Useful Load			0
				TAKEOFF GROSS WEIGHT	16480	22.0	362744

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RDS^{win} Batch Overview

- **Stand-alone batch implementation of RDS^{win}-Pro analysis routines:**

- **Aerodynamics**
- **Propulsion**
- **Weights**
- **Performance**
- **Sizing and Range**



- **Single executable (.exe), runs instantly, can be called repeatedly**
- **Doesn't have or need a GUI or any real-time user interaction**
- **Uses analysis input files created in RDS^{win}-Pro**
- **Called and controlled by a simple user-created text file (“BatchDo”)**
- **Set, Scale, and Poke commands allow revising the RDS^{win} data files for instant trade studies**
- **Results are output to text files in a usable format**

RDS^{win} Batch Direct Operation

User Prepares BatchDo Text File:

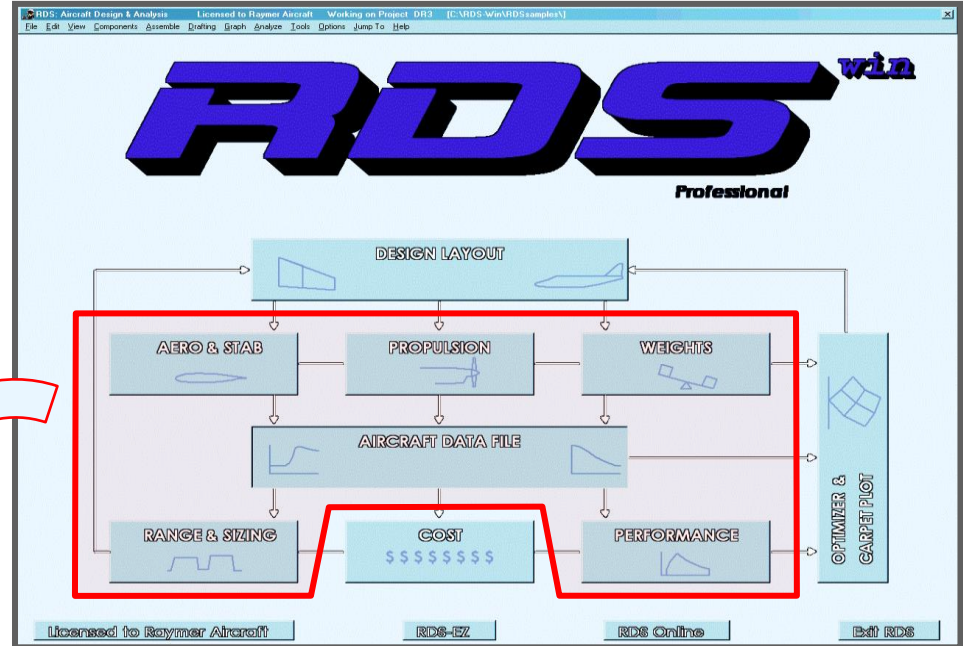
```

RDSwinBatchDo.txt
START BATCH
RunAero:           Aero.rdsdaa
ScaleWingAspectRatio= 1.25
ScaleWingTaperRatio = 0.6
UseRDSDAT file:    DAT.rdsdat
SaveToRDSDAT file: DATmod.rdsdat
OutputTextResultsTo: BatchOutput.txt
END BATCH
    
```

RUN:



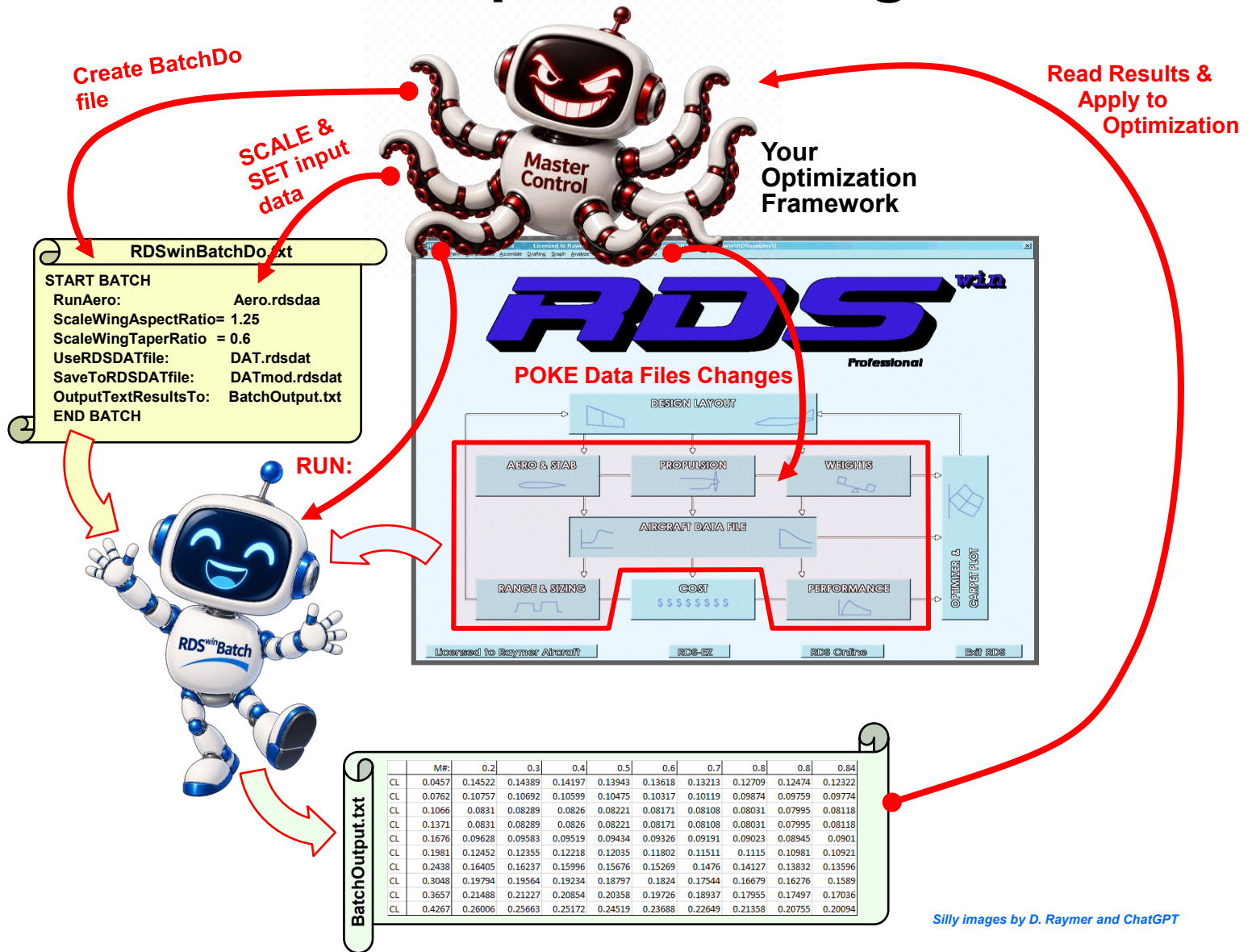
User Prepares RDS^{win} Data Files:



BatchOutput.txt

	M#:	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.8	0.84
CL	0.0457	0.14522	0.14389	0.14197	0.13943	0.13618	0.13213	0.12709	0.12474	0.12322
CL	0.0762	0.10757	0.10692	0.10599	0.10475	0.10317	0.10119	0.09874	0.09759	0.09774
CL	0.1066	0.0831	0.08289	0.0826	0.08221	0.08171	0.08108	0.08031	0.07995	0.08118
CL	0.1371	0.0831	0.08289	0.0826	0.08221	0.08171	0.08108	0.08031	0.07995	0.08118
CL	0.1676	0.09628	0.09583	0.09519	0.09434	0.09326	0.09191	0.09023	0.08945	0.0901
CL	0.1981	0.12452	0.12355	0.12218	0.12035	0.11802	0.11511	0.1115	0.10981	0.10921
CL	0.2438	0.16405	0.16237	0.15996	0.15676	0.15269	0.1476	0.14127	0.13832	0.13596
CL	0.3048	0.19794	0.19564	0.19234	0.18797	0.1824	0.17544	0.16679	0.16276	0.1589
CL	0.3657	0.21488	0.21227	0.20854	0.20358	0.19726	0.18937	0.17955	0.17497	0.17036
CL	0.4267	0.26006	0.25663	0.25172	0.24519	0.23688	0.22649	0.21358	0.20755	0.20094

RDS^{win} Batch Optimizer Integration



BatchDo File

An Actual, Complete BatchDo File:

```
START BATCH:          Units=mks  delim=tab
RunAero:              C:\Users\You\YourRDSfolder\YourAeroInputs.rdsdaa
ScaleWingAspectRatio= 1.25
ScaleWingTaperRatio = 0.6
UseRDSDATfile:        C:\Users\You\YourRDSfolder\YourDAT.rdsdat
SaveToRDSDATfile:     C:\Users\You\YourRDSfolder\YourDATmod.rdsdat
OutputTextResultsTo:  C:\Users\You\YourRDSfolder\YourBatchOutput.txt
END BATCH
```

BatchDo Analysis Commands:

```
RunAero: C:\Users\You\YourRDSfolder\YourAeroInputs.rdsdaa
RunWeights: C:\Users\You\YourRDSfolder\YourWtsInputs.rdsdwt
RunPropulsion: C:\Users\You\YourRDSfolder\YourPropulsionInputs.rdsdpr
RunPerformance: C:\Users\You\YourRDSfolder\YourPerfInputs.rdsdpa
RunSizing: C:\Users\You\YourRDSfolder\YourSizingInputs.rdsdms
```

BatchDo Data Modification Commands:

SetThrust/Weight= .4		
ScaleThrust/Weight= 1.25	SetWingLoading= 60	POKEvalDAA=1.5 2 4
ScaleWingLoading= 1.1	SetWo= 9000	POKEvalDWT=120 9 4
ScaleWingAspectRatio= 0.75	SetWe= 4000	POKEvalDPR=.53 5 1
ScaleWingTaperRatio= 0.6	SetWcrew= 200	POKEvalDMS=200 7 4
ScaleWingSweep= 1.1	SetWcargo= 1000	POKEvalDPA= 50 1 7
ScaleWingThickness= 0.8	SetWpassenger= 2000	POKEvalDAT=.08 3 2 5
ScaleWingDesignCL= 1.5	SetWmiscUL= 100	
ScaleFuselageFineness= 1.2	SetWoil= 10	

And More.....

RDS^{win} Batch Output

ASCII Output Text Files in Consistent Format

```
RDSwinBatch: 08-10-2026 11:58:57
Results from the batch-mode analysis routines of RDSwin-Pro Version win14.0
(Subject to restrictions in the RDSwin-Pro license agreement)
RDSwinBatchDo File: RDSwinBatchDo.txt
RDSwin InputGridFile$: DR3.rdsdaa
UseRDSDATfile$: DR3.rdsdat
SaveToRDSDATfile$: DR3mod.rdsdat
```

```
SCALE Ratios:  T/W= 1.000      W/S= 1.000      A= 1.270
                Sweep= 1.000    taper= 1.000      t/c= 1.000|
                CL-design= 1.000  Fuselage Fineness Ratio=1.000
```

Just one of many

```
CDo Parasitic Drag      Data uses Sreference = 27.31 (sq-m)
[J=5]      [NumDataRows=8]      [NumDataCols=20]
      Mach # =      0.2      0.3      0.4      0.5      0.6      0.7      0.8
Alt= 0      0.01425      0.01382      0.01402      0.01427      0.01445      0.01457      0.01468
Alt=2500.    0.01472      0.01425      0.01407      0.01427      0.01445      0.01457      0.01468
Alt=5000.    0.01524      0.01474      0.01452      0.01434      0.01445      0.01457      0.01468
Alt=7500.    0.01582      0.01529      0.01505      0.01485      0.01466      0.01458      0.01468
Alt=10000.   0.01648      0.0159      0.01564      0.01542      0.01522      0.01503      0.01487
Alt=12500.   0.01738      0.01675      0.01645      0.01621      0.01598      0.01577      0.01559
Alt=15000.   0.01849      0.01778      0.01744      0.01716      0.01691      0.01667      0.01647
Alt=15240.   0.0186      0.01788      0.01754      0.01726      0.01701      0.01676      0.01656
```

```
K Induced Drag Factor      Data uses Sreference = 27.31 (sq-m)
[J=6]      [NumDataRows=10]      [NumDataCols=20]
      Mach # =      0.2      0.3      0.4      0.5      0.6      0.7      0.8
CL =0.0457    0.14522      0.14389      0.14197      0.13943      0.13618      0.13213      0.12709
CL =0.0762    0.10757      0.10692      0.10599      0.10475      0.10317      0.10119      0.09874
CL =0.1066    0.0831      0.08289      0.0826      0.08221      0.08171      0.08108      0.08031
CL =0.1371    0.0831      0.08289      0.0826      0.08221      0.08171      0.08108      0.08031
CL =0.1676    0.09628      0.09583      0.09519      0.09434      0.09326      0.09191      0.09023
CL =0.1981    0.12452      0.12355      0.12218      0.12035      0.11802      0.11511      0.1115
CL =0.2438    0.16405      0.16237      0.15996      0.15676      0.15269      0.1476      0.14127
CL =0.3048    0.19794      0.19564      0.19234      0.18797      0.1824      0.17544      0.16679
CL =0.3657    0.21488      0.21227      0.20854      0.20358      0.19726      0.18937      0.17955
CL =0.4267    0.26006      0.25663      0.25172      0.24519      0.23688      0.22649      0.21358
```

```
CL-max and CL-alpha      Data uses Sreference = 27.31 (sq-m)
[J=7]      [NumDataRows=2]      [NumDataCols=20]
      Mach # =      0.2      0.3      0.4      0.5      0.6      0.7      0.8
CL-max      1.8635      1.8287      1.794      1.782      1.7553      1.7022      1.6273
CL-alpha    3.8452      3.8966      3.9727      4.0784      4.2215      4.4152      4.6821
```

Much more
data to the
right