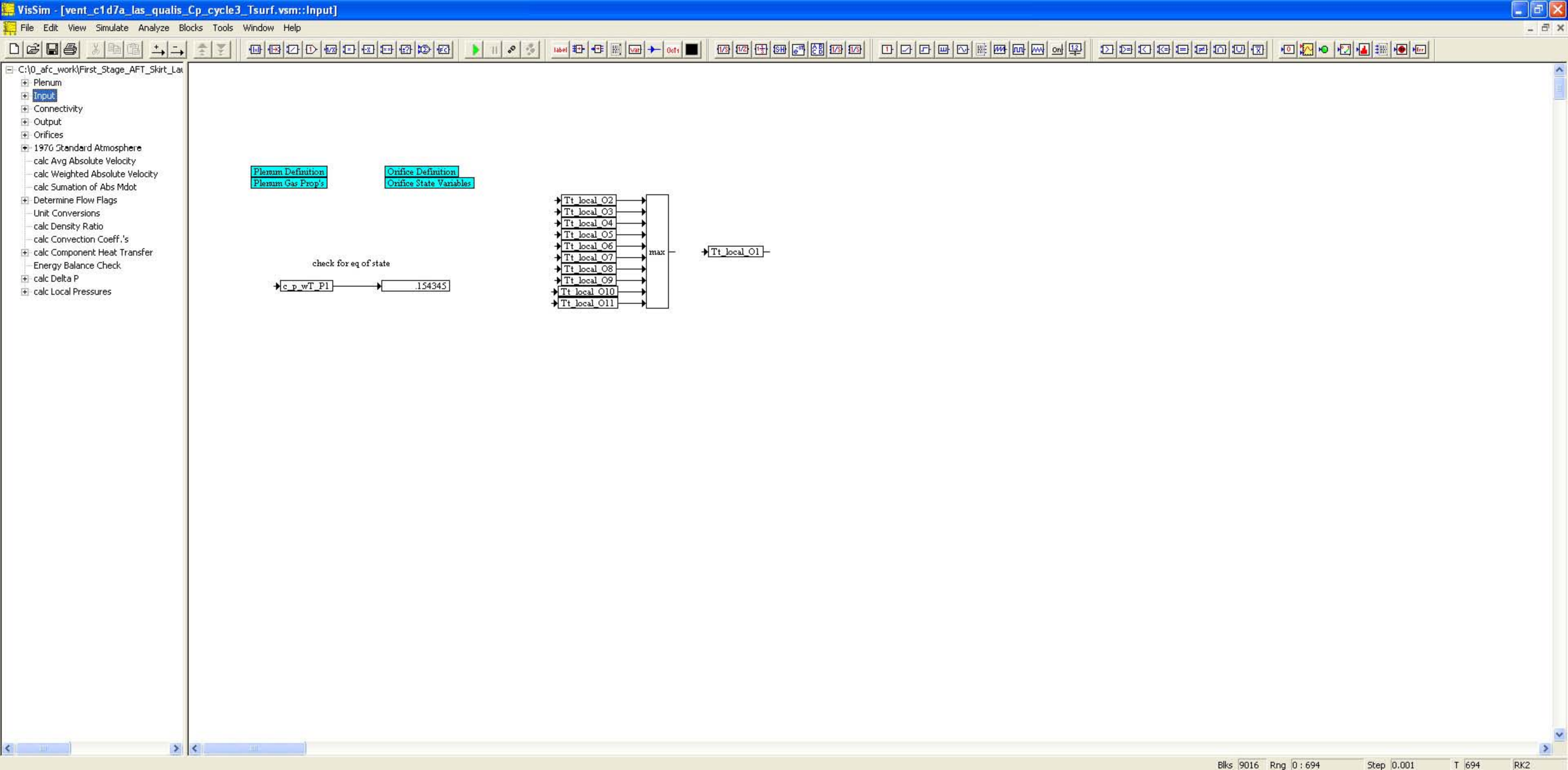
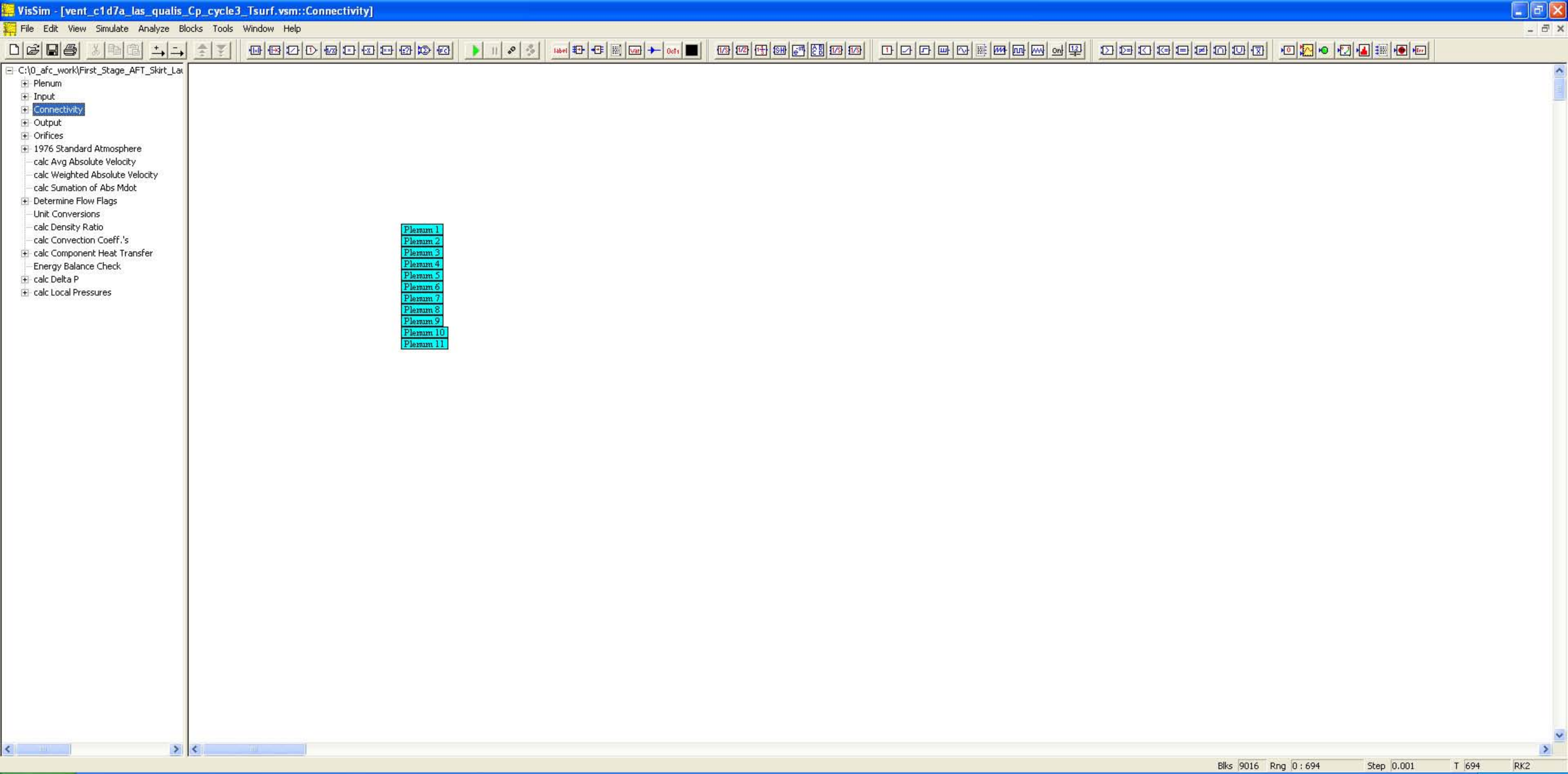


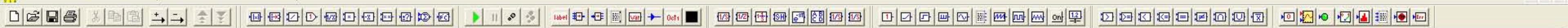
- [-] C:\0\_afc\_work\First\_Stage\_AFT\_Skirt\_Lat
- + Plenum
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- + Output
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Plenum 1  
Plenum 2  
Plenum 3  
Plenum 4  
Plenum 5  
Plenum 6  
Plenum 7  
Plenum 8  
Plenum 9  
Plenum 10  
Plenum 11





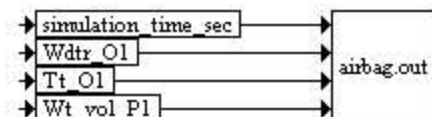
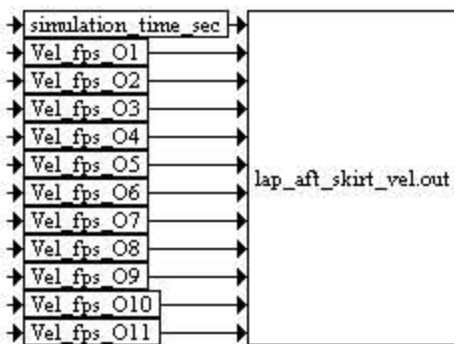
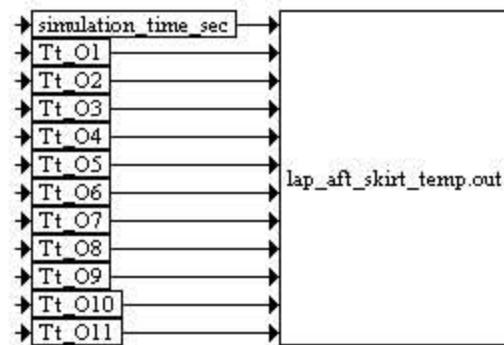




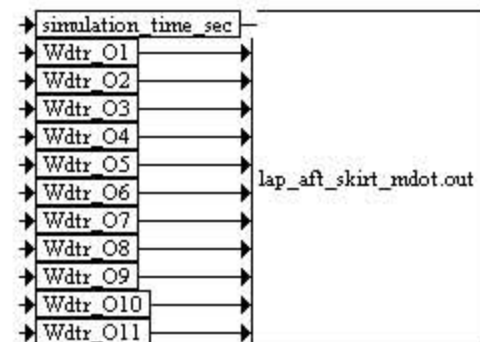
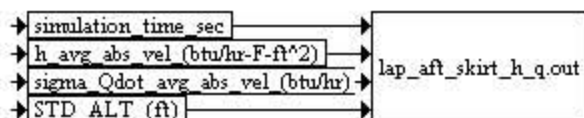
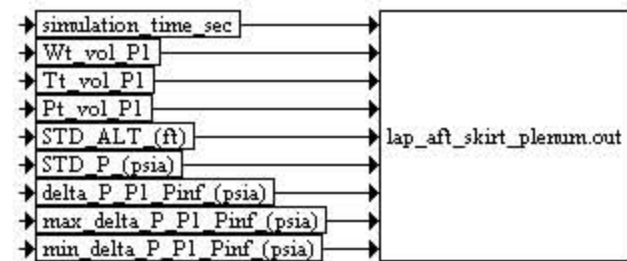
C:\0\_afc\_work\First\_Stage\_AFT\_Skirt\_La

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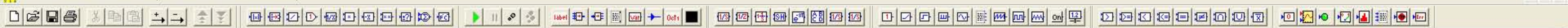
Calc Orifice Velocities



simulation\_time\_sec 694

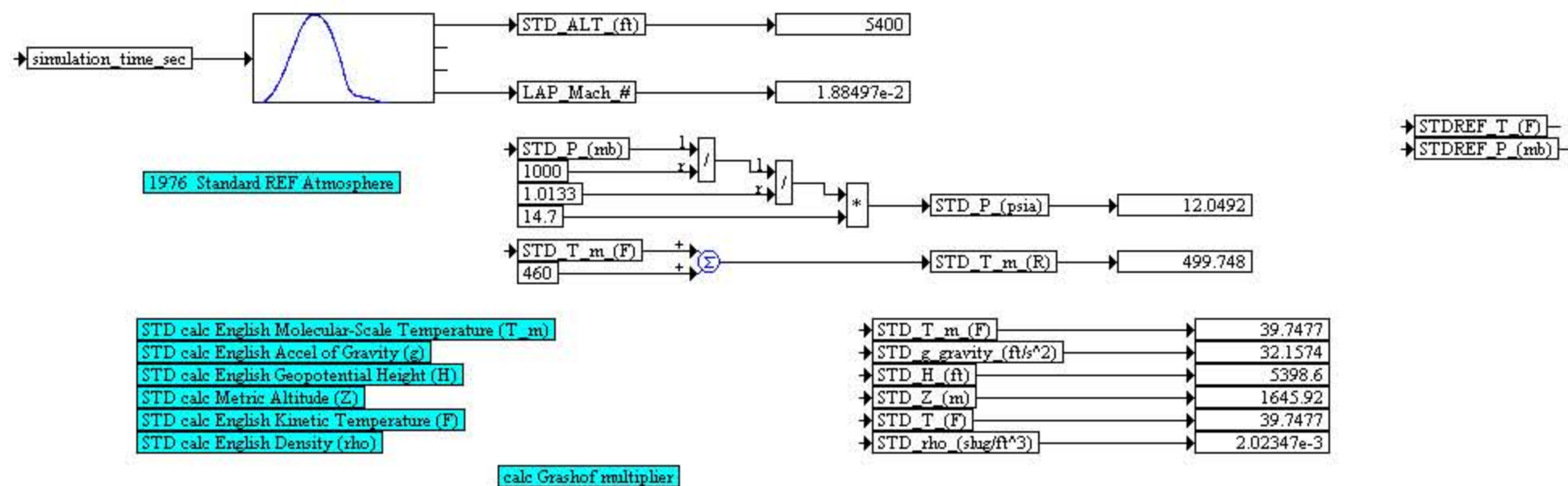






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STD calc Geopotential Height (H)

STD calc Accel of Gravity (g)

STD calc Molecular-Scale Temperature (T\_m)

STD calc Molecular-Scale Temp. @ Gradient Boundary (T\_mb)

STD calc Molecular-Scale Temperature Gradient (L\_mb)

STD calc Geopotential Height Boundary (H\_b)

STD calc Pressure @ Gradient Boundary (P\_b)

STD calc Kinetic Temperature (T)

STD calc density (rho)

STD calc Total Atmospheric Pressure (P)

STD calc Ratio of Universal Gas Constant to Mean Molecular Weight (R\*/M)

STD calc Speed of Sound (C\_s)

STD calc Coeff. of Dyn. Viscosity (mu)

STD calc Coeff. of Thermal Conductivity (k\_t)

STD T\_m (F) 39.7477

STD g\_gravity (ft/s^2) 32.1574

STD H (ft) 5398.6

STD Z (m) 1645.92

STD T (F) 39.7477

STD\_rho (slug/ft^3) 2.02347e-3

STD H (m) 1645.49

STD g\_gravity (m/s^2) 9.80157

STD T\_m (K) 277.454

STD T\_mb 288.15

STD L\_mb -6.5e-3

STD H\_b 0

STD P\_b 1013.25

STD T (K) 277.454

STD\_rho (kg/m^3) 1.04285

STD P (mb) 830.572

STD R\*/M (N-m/kg-K) 287.053

STD C\_s (m/s) 333.919

STD\_mu (kg/m-s) 1.73731e-5

STD\_k\_t (W/m-K) 2.44807e-2

9.80665 STD g\_o (m/s^2)

9.80665 STD g\_o\_prime (m^2/s^2-m)

6.35677e+006 STD n\_o (m)

28.9644 STD M\_o (kg/kmol)

8314.32 STD R\* (N-m/kmol-K)

1.4 STD gamma

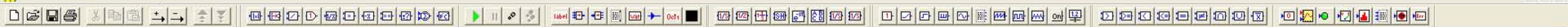
1.458e-006 STD beta (kg/s-m-K^0.5)

110.4 STD S (K)

28.9644 STD M\_mean\_molecular\_wt (kg/kmol)

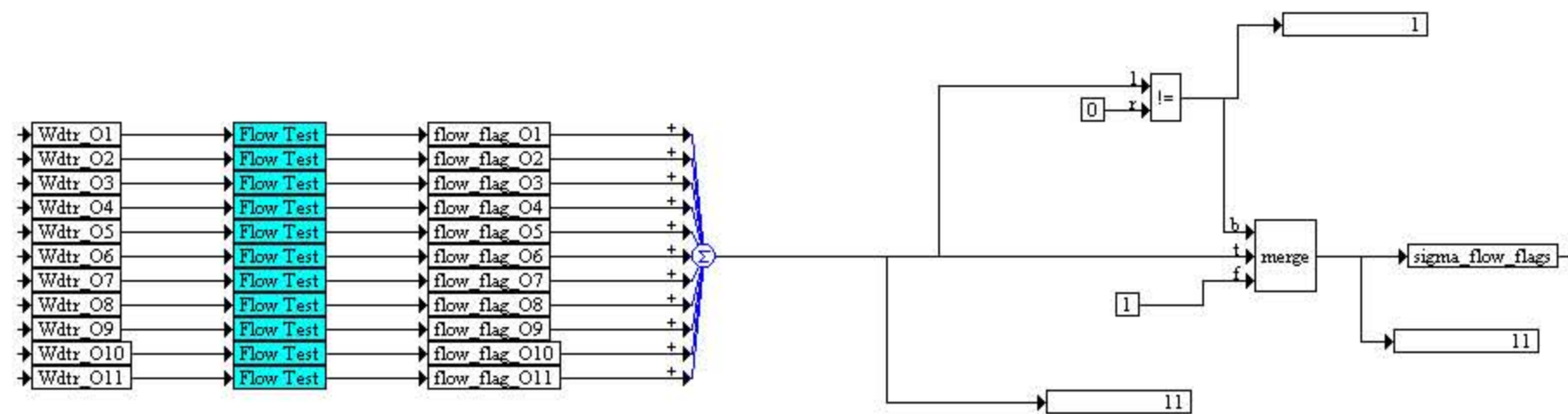
28.9644 STD M\_mean\_molecular\_wt\_sea\_level (kg/kmol)



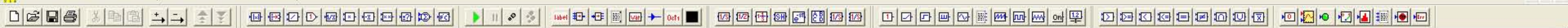


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calc Qdot's for Avg Abs Vel k's

0.2 → Cp\_Parts (btu/lbm-F)  
55 → T\_i Parts (F)

calc Temp's for Avg Abs Vel k's

Wdtr\_O1

10000 → 0.1 → Mass Part 1 (lbm) → Sigma Mass Parts (lbm) → 1000  
3120 → 0.1 → Area Part 1 (ft^2) → Sigma Area Parts (ft^2) → 312

calc Q node 8 to node 1  
calc Q node 1 to node 2  
calc Q node 1 to node 3  
calc Q node 3 to node 4  
calc Q node 3 to node 5  
calc Q node 3 to node 6  
calc Q node 6 to node 7

calc Temp for node 1  
calc Temp for node 2  
calc Temp for node 3  
calc Temp for node 4  
calc Temp for node 5  
calc Temp for node 6  
calc Temp for node 7  
calc Temp for node 8

calc Sigma Q node 1  
calc Sigma Q node 2  
calc Sigma Q node 3  
calc Sigma Q node 4  
calc Sigma Q node 5  
calc Sigma Q node 6  
calc Sigma Q node 7

Initial Node Temperatures

1 → G node 8 to node 1 (btu/F)  
299.3 → G node 1 to node 2 (btu/F)  
1 → G node 1 to node 3 (btu/F)  
8.6 → G node 3 to node 4 (btu/F)  
11.4 → G node 3 to node 5 (btu/F)  
7.324 → G node 3 to node 6 (btu/F)  
0.4514 → G node 6 to node 7 (btu/F)

T node 1 (F) → -1 #IND  
T node 2 (F) → -1 #IND  
T node 3 (F) → -1 #IND  
T node 4 (F) → -1 #IND  
T node 5 (F) → -1 #IND  
T node 6 (F) → -1 #IND  
T node 7 (F) → -1 #IND  
T node 8 (F) → 66.5657

1 → MCp node 1 (btu/F)  
0.4074 → MCp node 2 (btu/F)  
0.25 → \* → MCp node 3 (btu/F)  
2.36 → MCp node 4 (btu/F)  
17.2 → MCp node 5 (btu/F)  
1 → MCp node 6 (btu/F)  
30.9 → MCp node 7 (btu/F)  
0.001 → MCp node 8 (btu/F)

Tt\_vol\_P1 → 460 → Σ → Cp\_Air (btu/lbm-F) → 24  
Cp\_Air (btu/lbm-F) → 1 → / → Cv\_Air (btu/lbm-F) → 171429  
Gm\_P1 → x  
Tt\_vol\_P1 → h\_Air (btu/lbm) → 122.537  
Tt\_vol\_i\_P1 → h\_i\_Air (btu/lbm) → 123.072

