



# dynamic process simulations of HRSGs in MATLAB/Simulink

The screenshot displays the MATLAB/Simulink environment. On the left, the 'NDS - GT' block configuration window is open, showing parameters for a gas turbine. The main workspace shows a complex Simulink model titled 'NDS Module Library' with various components like 'Gas Turbine', 'Burner', 'Cavity', 'Steam Turbine', and 'Heat Exchangers'.

constituents	N2	O2	CO	CO2	H2O	SO2	Ar
0.735331	0.155894	0.0	0.054574	0.041683	1.3E-5	0.012305	

start time [s]	duration [s]	comment
402.0	600.0	GT soak @ Tesh=380C for 10 mins. Refer...
714.0	4300.0	GT load hold @ IGV load for 70 mins. Ref...
714.0	7952.0	GT load hold @ IGV load for duration of S...

## Key features:

- advanced data structure browser with recent files list and numerous post processing tools
- automated Simulink model creation from steady-state thermal design
- NDS block library for: control valves, heat exchangers, gasturbine, steam turbine, drum/deaerator, PID controls, ...
- state-of-the-art heat transfer correlations
- optimised for calculation performance
- logged data is added to data structure after simulation
- automated report generating capabilities
- external interfacing with: Java, C, and Fortran
- search path management based on project selection
- modern high quality software:
  - 15 years proven track record
  - best coding practices
  - Git revision control
  - full test suite

