In collaboration with a major manufacturer of heat recovery steam generator (HRSG) systems, TechnoSoft, Inc. has developed a knowledge-based engineering software framework to improve product quality while minimizing engineering time and cost. Using the application has resulted in over 90% reduction in cycle time for design and analysis of tailor-made HRSG systems, from concept to detailed drawings.

Based on the platform independent, web-enabled and distributed open architecture of the Adaptive Modeling Language (AML), this framework provides the following capabilities:

- Product generation based on design and fabrication knowledge that capitalizes on industry standard rules and specifications
- Automated 3D layout of pressurized coils, headers, tubes, and nozzles
- Piping space management and layout that uses automated pipeline routing inside corridors based on design knowledge and industry standards
- Automated 3D modeling of primary structures, including the casing roof, floor, and walls
- Automated 3D configuration of secondary structures, including coil supports, vibration supports, acoustic baffles, gas baffles, header restraints, and drums
- Integrated thermal, structural, seismic, and wind load analyses
- Automated creation of 2D design