

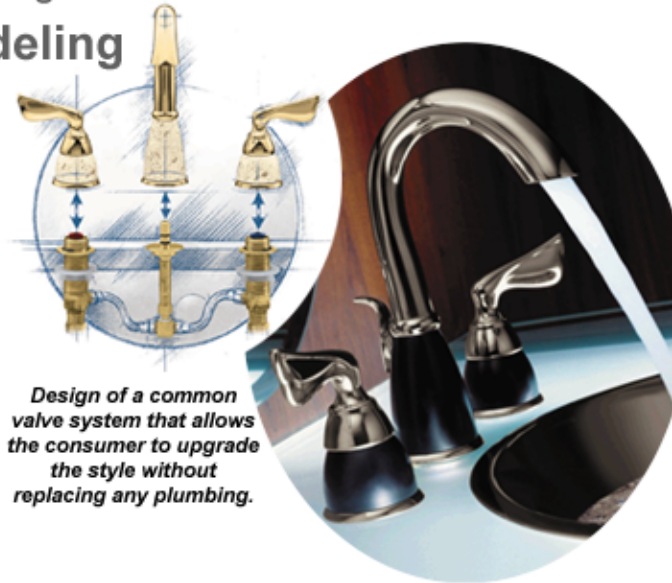
In today's extremely fast paced business economy, it is essential to reduce the time it takes to get your product to market. At Atrus Incorporated, our engineers utilize their exceptional skill set and advanced techniques coupled with their experience and the latest technology to reduce the time to market for our clients' products. Our team environment focus integrates itself well in a wide range of engineering activities, from designing to engineering to project management. Our experience includes product, plastic part, casting, weldment, sheet metal, machine and mechanisms design and engineering. Allow Atrus to lead the way through your most challenging design and analysis tasks.

## Solid Modeling and Surface Modeling

Our engineers specialize in high-end solid and surface modeling as well as large assembly management with the use of Pro/ENGINEER software. We use the many advanced techniques such as Top Down Design, Pro/Program, Layout Mode and directly drive your models with engineering equations to incorporate design intent.

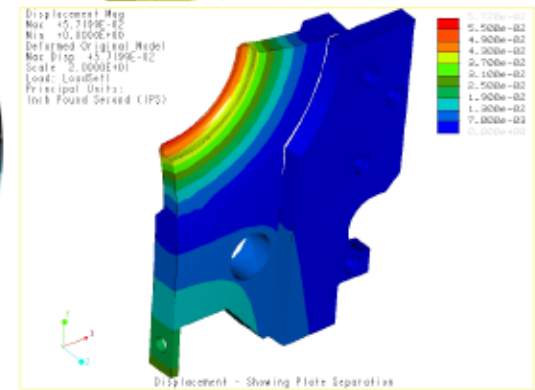
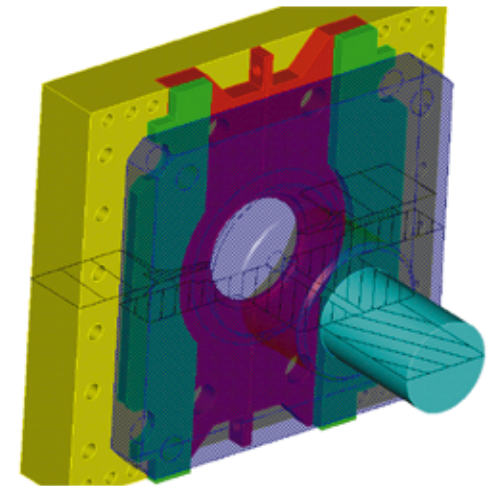
### Services we offer:

- o Simple to extremely complex 3-D solid and surface modeling and assemblies
- o Model optimizations and motion studies
- o Complete mechanical drawings
- o Software implementation
- o Complete set-up of standard parts to help your engineers and designers be more productive
- o In-house training
- o 3-D Model conversions
- o Photo realistic rendering



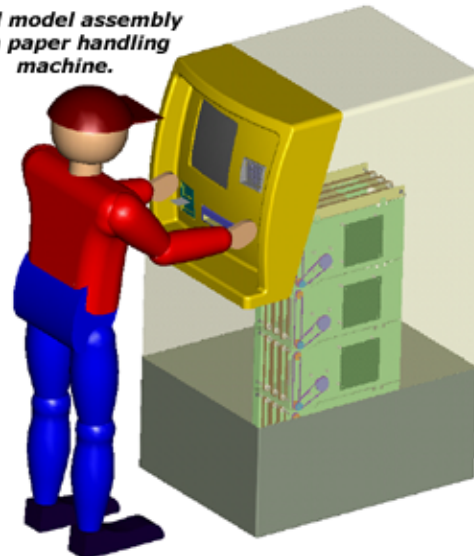
*Design of a common valve system that allows the consumer to upgrade the style without replacing any plumbing.*

*End product from a combination of advanced solid and surface modeling.*

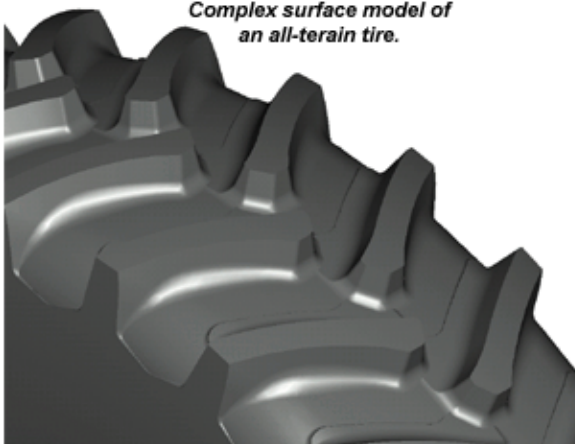


*Contact analysis of a forming press showing plate separation.*

*Solid model assembly of a paper handling machine.*



*Complex surface model of an all-terrain tire.*



## Finite Element Analysis

Integration of FEA into your design process enables you to greatly enhance product quality. FEA allows simulation of the structural behavior of your product, resulting in much reduced manufacturing and testing. This process saves you substantial time and cost during the product development cycle.

### Services we offer:

- o Structural analysis
- o Fatigue analysis
- o Vibration analysis
- o Thermal analysis
- o Dynamic and kinematics motion analysis
- o Design optimization
- o Design validation
- o Determine and verify field failures