



THIRD WAVE SYSTEMS

MODELING TECHNOLOGY · MACHINING SOLUTIONS

CASE STUDY: Aerospace Structure

Applied Engineering specializes in high speed milling of aluminum components to close tolerances. They provide major cost savings through their efficient machining processes, which allows Applied to quickly produce the parts customers need to get to market faster.



In 2014, Applied Engineering began optimizing their processes with Production Module on three aluminum aerospace structure parts. Almost immediately, engineers began seeing significant savings in machine hours, reduced cycle times and tool consumption.

Part: Center Partition
(aluminum aerospace structure component)

Approach:

- » Implement the optimization of three aluminium aerospace structure parts, including the Center Partician

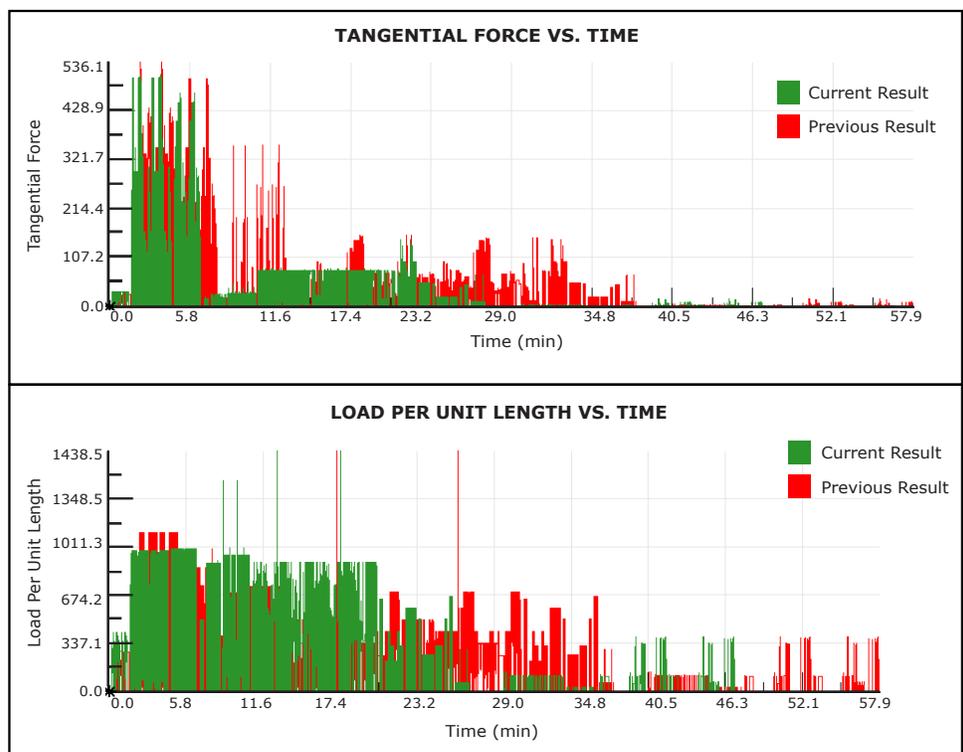
Software:

- » Third Wave Systems NC optimization product, Production Module

Results:

- » 25% reduction on 300-500 parts machined per month
- » **55% reduction in amount of tools used**

- » Overall, Applied Engineering saw more than **4,250 machine hours in added capacity** (nearly 80% of one machine) due to optimizing processes with Production Module.



BEFORE PRODUCTION MODULE

Cycle time: 37 minutes/part

AFTER PRODUCTION MODULE OPTIMIZATION

Cycle time: 28 minutes/part, freeing up 540 machine hours

Third Wave Systems is the premier provider of validated material physics-based modeling solutions and services. The physics-based machining simulation software products and services are used to optimize machining processes, giving engineers access to more information than trial-and-error tests and allowing them to make better decisions. Third Wave Systems' modeling products and services are used by progressive companies to dramatically reduce costs of machined components, accelerate design cycles, improve part quality and get to market faster.