

50 Years of Pioneering Spirit



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In Huntsville, Alabama, the dynamic test stand building which was constructed in 1964 still stands today. At 111 meters tall, the gigantic Saturn V rocket was assembled in the building and the building shook the rocket to determine if there would be structural failure. A visionary at Goddard Space Center (Tom Butler) had the idea to do the same test in a computer instead of a building and NASTRAN was born. The building was declared a National Historic Landmark in 1985. In 2003, NASA stated the value of NASTRAN to society is over \$10B. The '60s was one of the most special times in the history of engineering. The race for space was romantic and inspiring, but it also created a very serious and time-critical mission for engineers. For the young MSC, it meant winning a contract to build Nastran for NASA to ensure the vibration in the Saturn V rocket would not put astronauts' lives at risk. This tiny company, competing against the giants like TRW, Douglas and General Dynamics, had a vision for the technology, a fighting spirit to compete and the follow-through to deliver.



Later, in the '70's and '80's, the innovations continued with further extensions to simulation and with new methods to allow the growing power of the digital computer to be exploited. These extensions added to the confidence needed by the engineers using simulation to make decisions. Many of the major concepts that enabled the growth of simulation were first used in production applications in MSC's products. During that incredibly rich expansion period, MSC played a major role in introducing numerical simulation to a broad range of industries. As a result of that focus and a belief in the value of CAE, simulation is used almost everywhere in engineering and MSC's tools are used on virtually every transportation system being developed on Earth today.

Over the past few years, I have had the great fortune to meet and share ideas with pioneers such as the MSC founder, Dr. Richard MacNeal, the father of Patran, Dr. Ed Stanton, and some extraordinary correspondence with Chris Craft, the flight director at NASA. Not even the President could override Chris, once the countdown for the launches started.

These were great men who showed me similar qualities. They were supremely confident in delivering to a completely uncertain future. Their personal commitment to success was selfless and unwavering. They are very smart, gifted with a thirst for knowledge, and with the ability to invent. They were leaders and they completed the mission. Dr. MacNeal had his mathematics; Dr. Stanton had the confidence of the government that he could deliver critical new innovation; and Mr. Craft, who started his career calculating structural loads by hand, and acknowledged to me how critical Nastran was in the development of space vehicles, had the confidence of a nation to guide every step of the missions.

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These individuals, who all played a part in helping to inspire a society and move humanity forward, inspired me deeply. As we bid farewell to the first 50 years of MSC Software, we look forward to the great human challenges that will inspire the next 50 years of a truly great company. In 2013, a new era begins for MSC. Look forward to the introduction of innovation commensurate with our rich history that will again be the vanguard for the future of simulation.