Advanced threats require advanced and complex systems, which increase costs and development time.

The F-35 has 177X more software than the F-16 and the development effort is 298X greater.

Software development cost increased by a factor of almost 300% over a 32-year period.

Cost in Time from Demonstration to Service Entry

F-16
- Demo: 4 years
- First Flight: 8 years
- Service Entry: 19 years

F-35
- Demo: 5 years
- First Flight: 10 years
- Service Entry: 19 years

An integrated multidisciplinary and multiphysics simulation platform is the base for a digital thread across the enterprise.

The use of computing and engineering simulation reduced the time required to deliver a new armored system, avoiding

330,000 live experiments
and saving
$270 million in costs

Reverse engineering and simulating a part of an aircraft that was under SLEP** enabled it to become 15% lighter while extending its expected operational life by 8X in 2 days.

Reducing the time from product inception to battlefield deployment saved the lives of 130 soldiers.

* Estimated ** Service Life Extension Program