

For Immediate Release:

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# Machine Learning Models Yield 100,000x Faster Computation on GPU-Equipped Linux rtx Servers

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February 26, 2019. Ann Arbor, Michigan.

[Applied Dynamics](#) announces the successful deployment of technology that makes use of Machine Learning (ML) models to represent complex interdependent physics for a vehicle (aircraft, spacecraft, weapon, ship, turbine engine), including structural, thermal, and aerodynamic forces. Once trained, ML models may be used to evaluate vehicle designs with 100,000x faster computation, as compared to the tightly-coupled FEA-CFD models used traditionally. Vehicle design candidates are generated using traditional methods and tools, e.g. CATIA, etc., as either a single vehicle or a parametric vehicle design space.

Through Eglin AFRL funding, ADI has developed a library of real-time ML models optimized to be run on large NVIDIA GPU processors, and able to be distributed across Linux servers to size computational power to match the vehicle complexity and physics. This powerful technology and its development have been made possible using the rtx daemon, real-time Linux edge computing platform, transforming standard Linux servers into time deterministic, computing and data handling servers like those found in many of the top Aerospace and Defense (A&D) test and development facilities across industry-leading A&D programs.

To learn more about how ADI can help your team apply ML and other A.I. to obtain ROI on industrial applications including manufacturing system anomaly detection, predictive quality, predictive maintenance, quality optimization and operational optimization, visit [www.adi.com](http://www.adi.com) or send an email to [adinfo@adi.com](mailto:adinfo@adi.com).

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