

MxD 14-07-01	Category: Recurring Manufacturing
Title:	Adaptive Machining Toolkit
Completion Date:	2018-07-31
Project Team:	General Electric (GE), Metrologic Group Services, Sivyer Steel Corporation, University of Wisconsin, Western Illinois University
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Objective:

Develop a new plug-and-play software and hardware toolkit that will enable legacy or modern computer numerical control (CNC) machines and robots to perform “geometric-adaptive machining” (GAM) without custom programming and modifications. Reduce set-up time, improve quality in machining, reduce time to generate geometric adaptive toolpath, and reduce implementation cost.

MxD Member Benefits:

- Provide new capabilities in terms of machining composites, complex castings, and additively manufactured parts
- Improve quality and minimize hand benching, an environmental health and safety consideration on the shop floor
- In-source tough repairs on complex components that currently either require a high cost replacement or are outsourced to locations where the cost is mitigated by lower labor cost. The net result would be savings to DoD and manufacturers, and increased U.S. manufacturing employment.