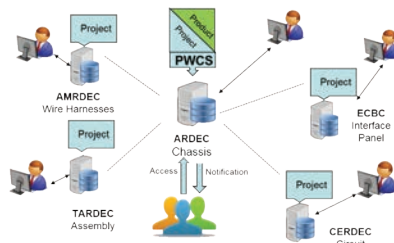


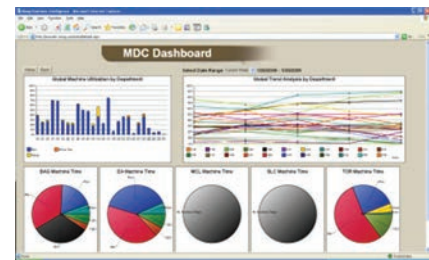
# Accelerated and Adaptive, Army Fabrication Enterprise (A3FABE)

## OBJECTIVE/SOLUTION:

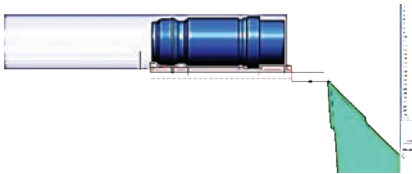
The Army Accelerated Adaptive Fabrication Enterprise (A3FABE) seeks to transform the organic industrial base to a digital model based capability which reduces product to design time by as much as 70% leading to up front risk reduction and overall reduced lifecycle costs.



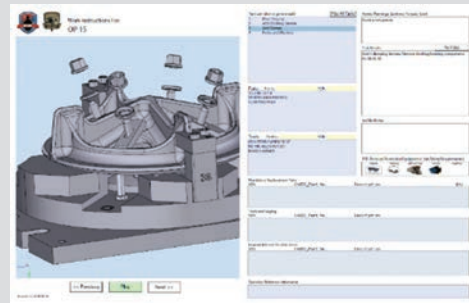
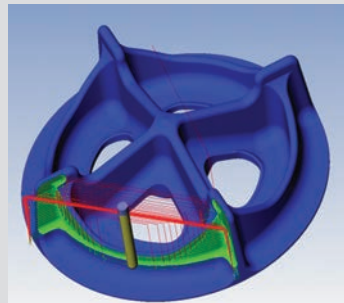
Improved collaboration with PIF  
Enterprise Prototype WindChill System



Improved scheduling decisions and  
job quoting accuracy with Real-time  
Machine Monitoring



Accelerated design to prototype with  
Parametrically Linked CAD and CAM



Reduced cycle time with Toolpath Optimization and Model-Based Setup  
Instruction — 81mm Mortar Base Plate

## Achievements:

- Demonstrated collaborative project execution via WindChill 10.2 Product Data for the redesign and prototype manufacturing the Gunner Protection Kit (GPK).
- Applied several advanced manufacturing solutions and practices at Watervliet Arsenal
- Piloted an integrated Smart Machining environment where machining data is tracked real-time in a dashboard portal for production management and engineering at both ADREC Materials Manufacturing & Prototype Technology Division (MMPT) and ARDEC Benet Labs.
- Piloted parametrically linked CAD and CAM solution from ARDEC MMPT to reduce prototyping cycle time and cost.
- Developed ISO Quality Management System documentation to include Model Based Enterprise and Advanced Manufacturing Practices to manage and control daily activities at RDECOM PIFs.

## Benefits:

- Reduction of time-to-field cycle
- Reduction in overall production cost: 70% savings in production time for 81mm mortar base plates.
- Improved quality of manufacturing data being passed from prototyping facilities to arsenals for full rate production
- Reduced production risks

## Transition and Weapon Systems/Secondary Items Impacted:

- Collaborative data management among RDEC Prototype Integration Facilities — AMRDEC, ARDEC, CERDEC, ECBC, TARDEC
- 81mm Base Plate production at Watervliet Arsenal
- Small caliber projectile prototype manufacturing activity at ARDEC MMPT

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