Digital Manufacturing

Computer Aided Design → STEP-NC Technical Data Package ← Cutting Tool Database

Computer Aided Manufacturing → STEP-NC Technical Data Package ← Machine Tool Database

STEP-NC Technical Data Package → Intelligent Control

Problem – Fragmented Data

Part + Tolerances

Drawings Some 3D

Made in-shop for one CNC

Paper-tape codes (without the paper)

Process

One design file spawns 100 manufacturing files! (Ford Study)

Cutting Tools

Chosen from experience, variable results

Machine Tools

Solution – Model Based

1M+ STEP CAD Seats for Part + Tolerances

ISO 13399 Cutting Tool Models

Model Driven Manufacturing & Assembly

Rich STEP-NC Process

**Machine Tool Kinematics**
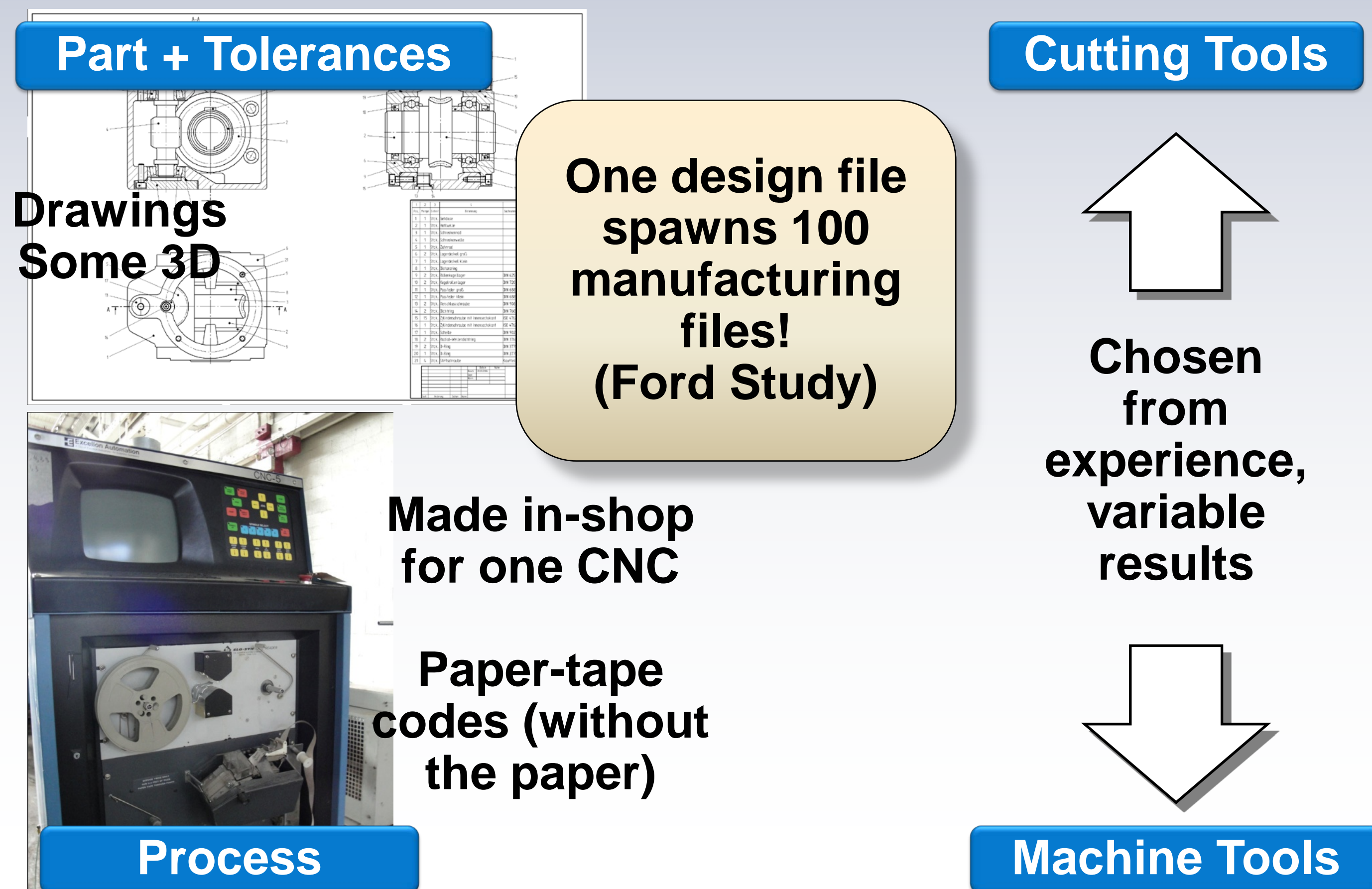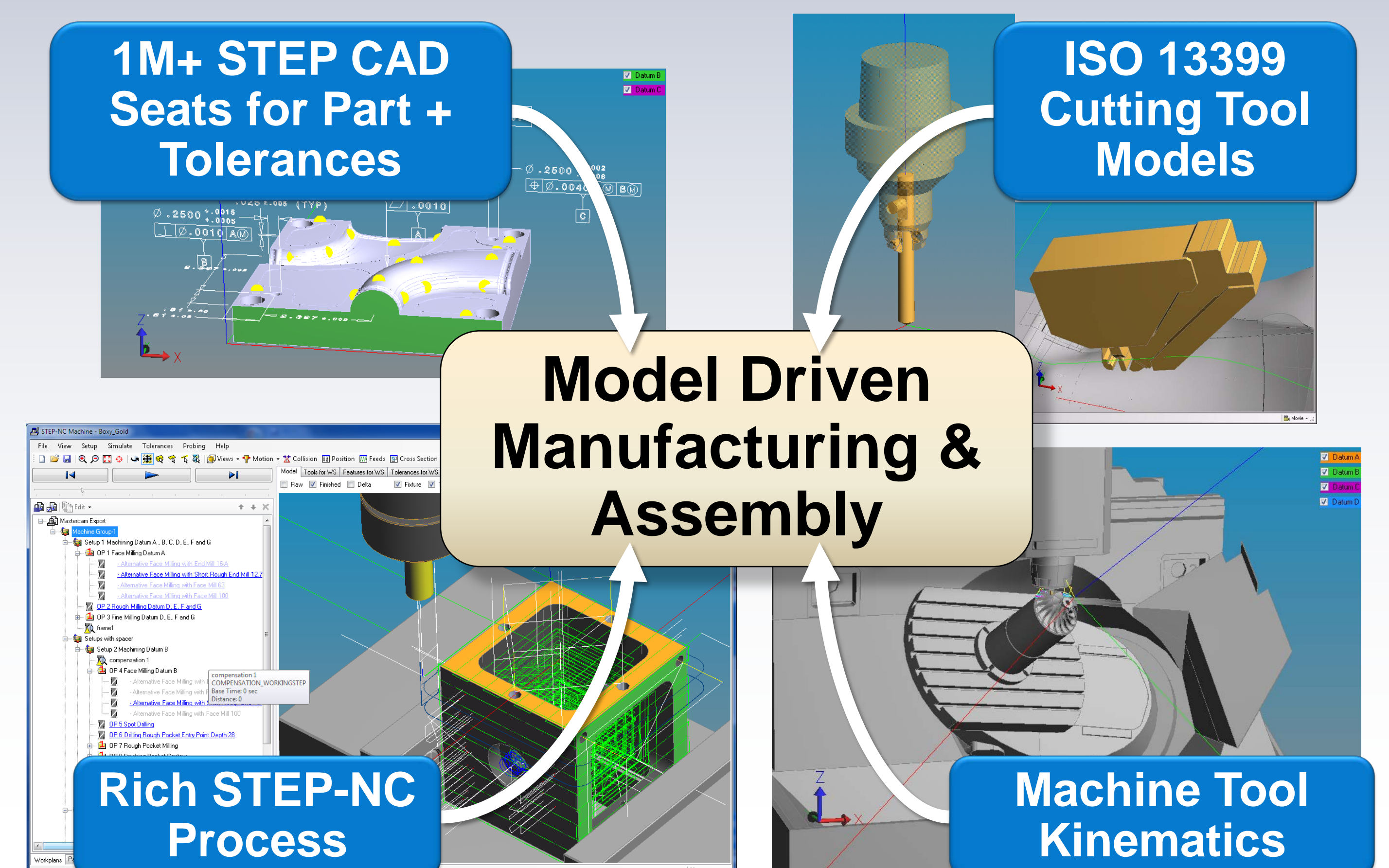
Fragmentation is wasteful

➢ Visiting sites to explain data
➢ Maintaining old unnecessary machines
➢ Repetitive, error prone data entry
➢ Misunderstandings of drawing symbols
➢ Poor simulations from incomplete data

Models enable

➢ Robot machining
➢ On-Machine acceptance
➢ Resource and performance optimization
➢ Last minute tooling selections
➢ Faster and better cost estimates
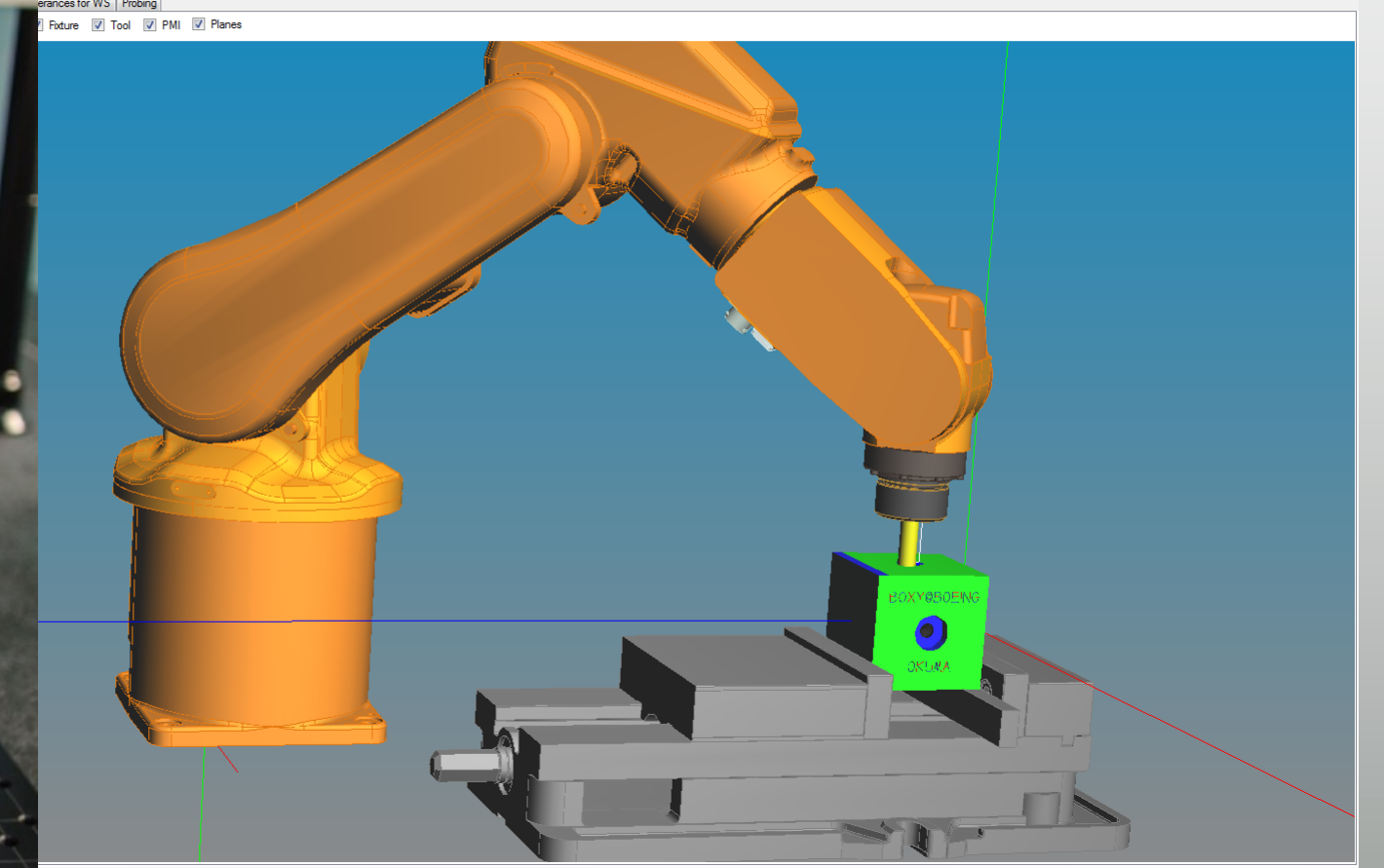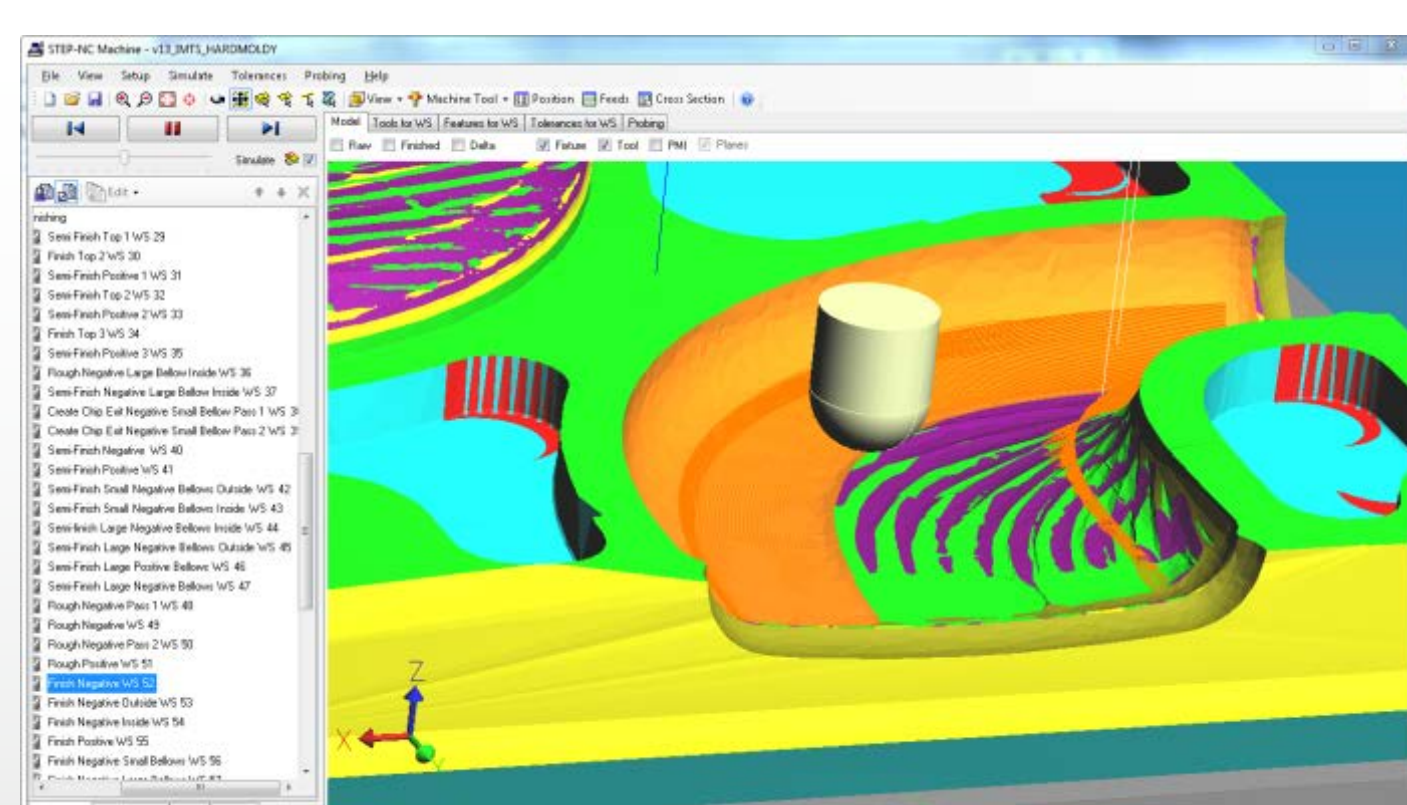
Find out how to get started at the TC184/SC4 Industry day on October 21st in Baltimore, Maryland