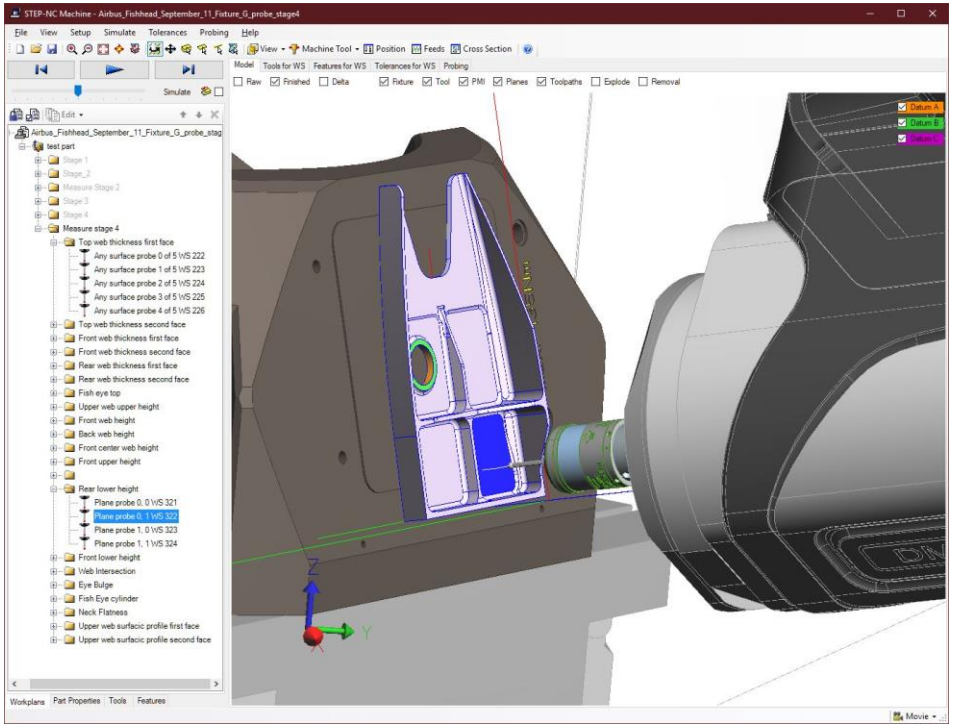
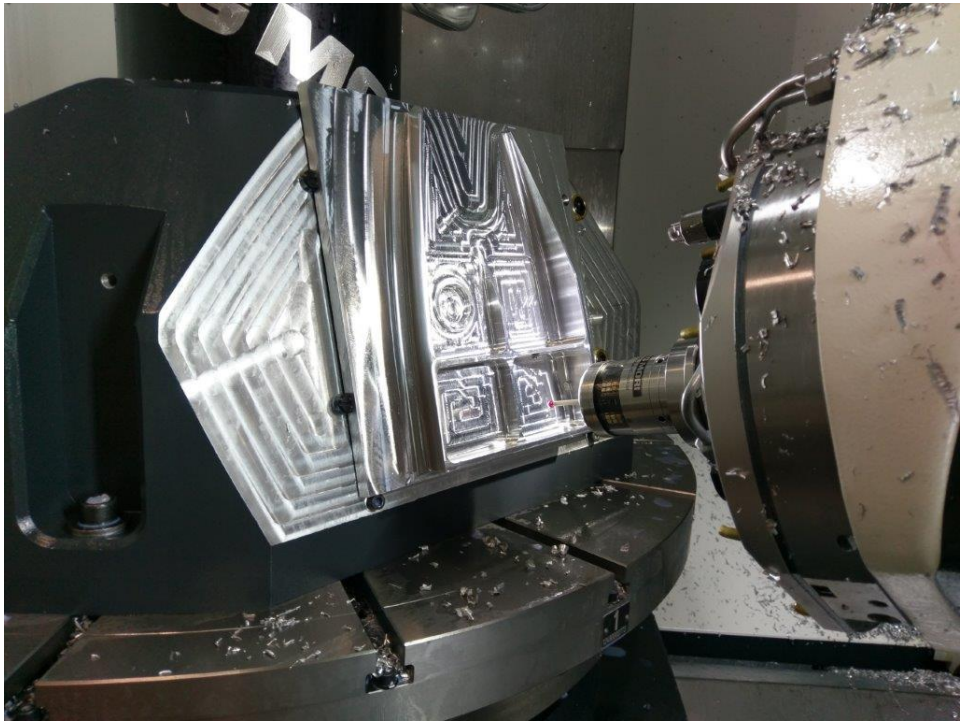
WG15

WG15 Digital Manufacturing





WG15

WG15 Digital Manufacturing

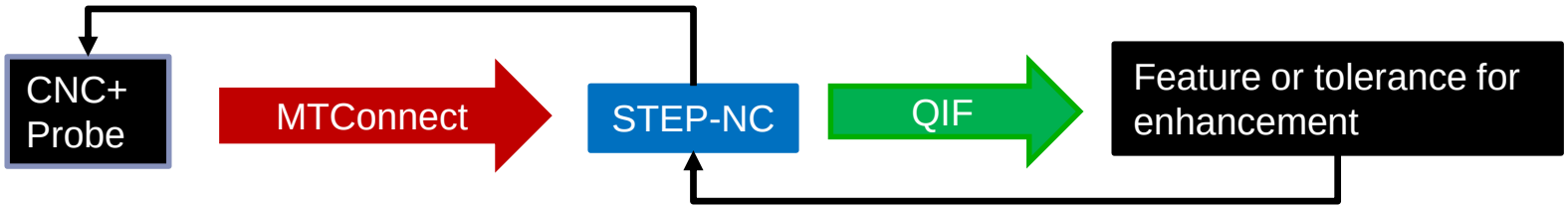
- Accomplishments in Los Angles
  - Resolved ISO 23952 QIF ballot comments
  - Resolved ISO 23247 DTF ballot comments
  - Started 3 use cases for ISO 23247
  - Gave digital twin demonstration on Industry day

1,000,000 parts have been machined using STEP-NC

WG15

ISO 23952 (QIF)

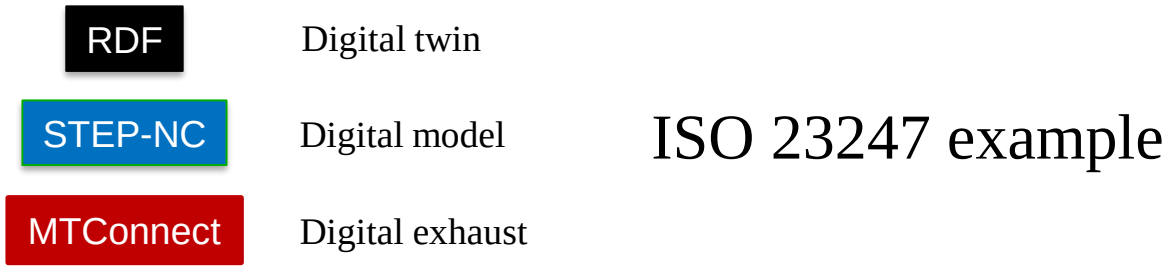
- Resolved ballot comments
- Started new project to formalize the mapping between STEP and QIF
- Tentative agreement that France and Japan will change vote to Yes



WG15

ISO 23247 (DTF)

- Resolved 277 helpful comments on CD
  - Thank you for the tremendous support
- Bi-weekly conference calls to complete DIS for submission in late January
- Face to Face meeting in January to finalize submission



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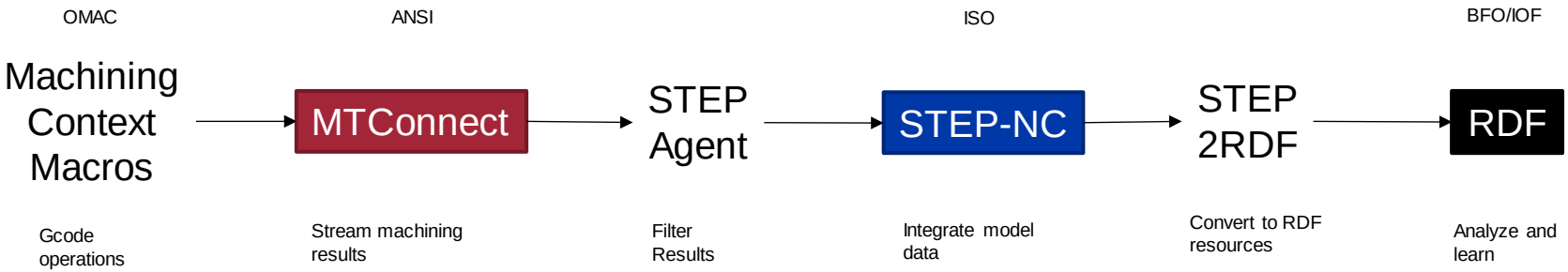
ISO 23247 Use Cases

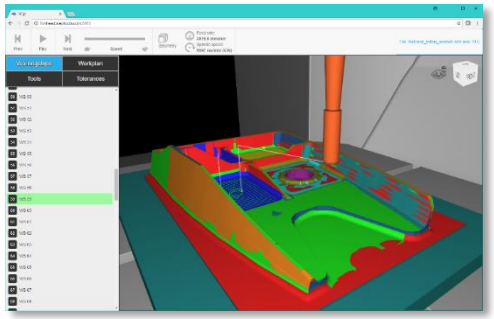
- Three use case to be developed
  - Digital Twin for robot drill and fill
  - Digital Twin for feed / speed optimization
  - Digital Twin for cutting tool assembly
- Use cases to be presented in Norway
  - Live demos and videos
  - Early drafts of technical reports



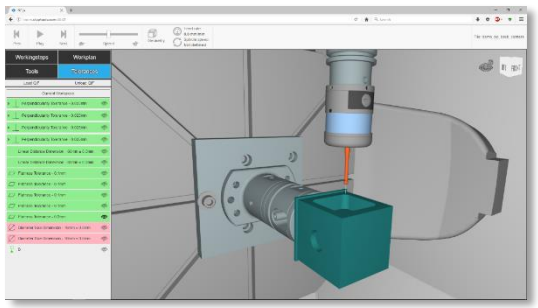
WG15

AP238 Edition 2 Review

- AP238 Edition 2 just started its DIS ballot
  - Enhancements from 10 years of STEP-NC testing
  - Integration with SMRL v8 modules
  - Addition of 14649-17 (additive manufacturing)
  - 2,000+ objects in ARM EXPRESS-G
  - All definition hot linked
  - Data examples on ap238.org



STEP-NC Machine & Measure



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Industry Day

- Four robot STEP-NC program
  - Physical twin at BARC lab in UW
  - Digital twin in LA meeting