Selective Electroplating Technology Improvement (SETI)

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Electrochemical Analysis

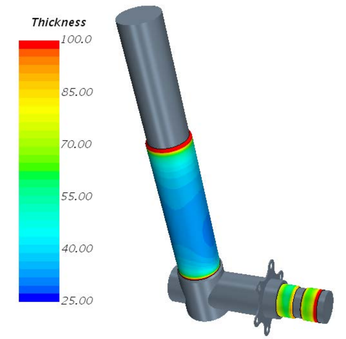
Electrochemical Analysis (Solutions)

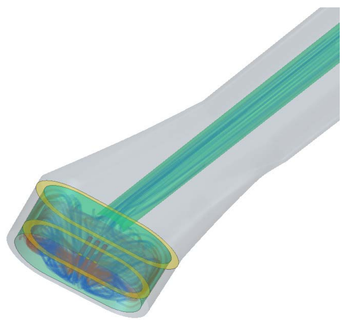
Electrochemical Analysis (Coatings)

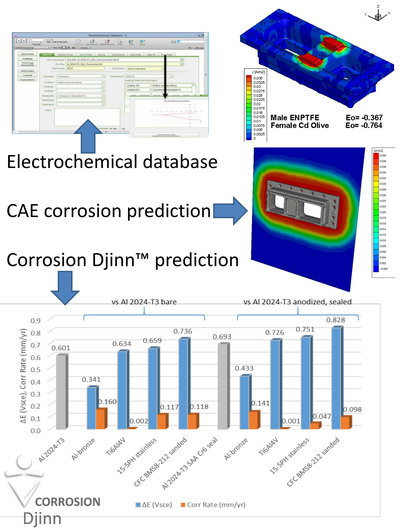
Process Optimization (Electrochemistry + CFD)

Electrochemical Database

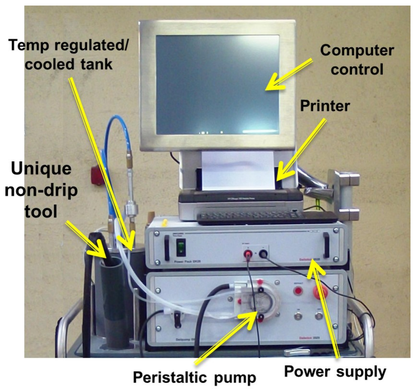
Galvanic Corrosion Prediction, Modeling, Simulation







Equipment Improvement, SETI



Computer-controlled non-drip Dalistick brush plating/anodizing. Original design of Dalistick plating head took >1 year to perfect. With Plating Simulation + CFD we should be able to design new tools in days or even hours. The project will produce a toolset to allow depots to design new plating tools without needing CAE.

Process Optimization, Performance Tests

Validation, qualification Design of Experiment testing for stripping, touch-up, recoating.

- **Existing:**
  - **Cd**
  - **Ni flash**
- **Improve:**
  - **SnZn**
- **New:**
  - **SAA**
  - **ZnNi**
  - **Ni build**

Depot Hardware Demo and Integration

Transfer to FRCSE.
Depot personnel to test and demo on components and aircraft

Americanize manuals, user screens, measurement units. Create Standard Operating Procedures (docs and control programs), update Structural Repair Manual. Training, Tech Transition

- FRCSE ZnNi program
- USAF Dalistick dem/val
- Hill AFB ZnNi production
- Norfolk Dalistick ZnNi on generators