



Robodata Workflow: collection and storage of data enables recording, replay, smoothing and visualization of robot tracks.

Problem Statement

- *What are you trying to do?* Establish practice of Data Strategy for Unmanned Systems Field Experimentation, Simulation and Analysis.
- *What is your approach?* A "data + metadata" pipeline for any robot mission definition and telemetry is already demonstrated for all technical components. This project will regularize end-to-end exemplars from actual CRUSER FX experimentation, then offer a transition plan for mainstream adoption of such best practices in NPS and Navy/USMC.

Impact

- *What contribution does this work make to your field?* Integrating multiple open standards and open-source libraries utilizing multiple open-data standards for comprehensive robot data collection.
- *What is the warfighting impact?* NPS FX is a microcosm matching test range capabilities at Fleet and FMF activities. Collaborative connections that are repeatable over time benefit all parties.
- *How will you measure success?* Reuse and adaptation of robot data for live-virtual-constructive (LVC) analysis, with external adoption of practice.

Transition

- *Who cares?* This work directly reflects operational needs for TESTDEVOPS and PMS 406 UMAA/RAIL. Multiple NPS collaboration partners include robot developers, U.S. armed services, and coalition forces. Mutual support for NPS/USNA research and education keeps all efforts grounded and relevant.
- *What are specific sources of continued support and collaboration?* Multiple Navy candidates identified including NAVSEA, OPTEVFOR, others. Aligns NPS transformation with all key players, now and future