

LLM Assisted Technical Order Management Tool

Objective

Provide an LLM capability to search and implement Air Force Technical Order Management specifications and directions

Background

Technical Manuals or Technical Orders (TO) provide the guidance and work instructions on how to maintain any given aircraft. These Air Force (AF) TOs are developed and managed in a specific way, described in detail in multiple AF TO management manuals. Finding the correct guidance can be very time consuming, both for the TO developers as for the AF TO Management Agencies (TOMA).

- TO 00-5-3: www.tinker.af.mil/Portals/106/Documents/Technical%20Orders/AFD-180201-00-5-3.pdf
- TO 00-5-19: <https://www.tinker.af.mil/Portals/106/Documents/Technical%20Orders/AFD-180215-00-5-19.pdf?ver=2018-02-15-102811-550>
- TO 00-25-195: www.tinker.af.mil/Portals/106/Documents/Technical%20Orders/00-25-195.pdf

Sample of publicly released TO management manuals (Tinker AFB)

Specific Goals

Fine tune an existing, open-sourced, commercially available LLM (Large Language Model) to generate text that provides a detailed, correct, and traceable question-answer capability for AF TO management manual inquiries.

Deliverables

An LLM capable of generating text in the style of the TO management manuals using publicly released TOs found on the Tinker Air Force Base website. Minimum requirements:

1. Question/Answer capability
2. Accuracy verification capability (no hallucinations)
3. Traceability of data source (indicated in responses)