This document contains a list of the Analysis Exchange (AE) ontology elements[[1]](#footnote-1) that are relevant to the different analytic capabilities in the Threat Assessment use-case as provided by SAP NS2, Centrifuge, Recorded Future, and Esri.

# Seed Data

The seed data, drawn from the ACLED[[2]](#footnote-2) data set, is initially in a CSV and held as a row per event with different columns for the fields of the event, some of which can translate into the AE elements and some that may be processed downstream. The principal objects are different types of events that represent those which appear in ACLED.

It is not 100% determined that this will match the content and terminology that will arrive in the Analysis Exchange without initial refinement, but the elements below reflect an attempt to capture this data as is:

* Classes
  + Actors
    - MilitaryOrganization 🡪 **MilitaryUnit** 
      * *This covers government or mutinous forces as well as rebels*
    - MilitaryOrganization 🡪 **ExternalMilitaryUnit** 
      * *This covers external military forces (e.g., UN forces)*
    - MilitaryOrganization 🡪 **Militia 🡪 PoliticalMilitia**
    - MilitaryOrganization 🡪 **Militia 🡪 EthnicMilitia**
    - **GroupOfPeople**
  + Events
    - SocialInteraction 🡪 Contest 🡪 **ViolentContest 🡪 Battle**
      * *This covers three kinds of battles (no territory exchanged, non-government forces gain ground, government forced gain ground)*
    - SocialInteraction 🡪 ChangeOfPossession 🡪 **Giving 🡪 Transfer**
      * *This covers transfer of territory*
    - SocialInteraction 🡪 Contest 🡪 **Riot**
      * *This covers riots and protests*
    - SocialInteraction 🡪 **NonViolentSocialInteraction**
      * *Covers wide variety of non-violent events (arrests of political figures, rallies, peace talks, recruitment, etc.)*
    - SocialInteraction 🡪 Contest 🡪 **ViolentContest 🡪 Attack**
    - SocialInteraction 🡪 Contest 🡪 **ViolentContest 🡪 Attack 🡪 RemoteAttack**
      * *Attacks that can be achieved without the presence of the attacker (e.g., IED)*
    - OrganizationalProcess 🡪 **EstablishingHeadquarters**
      * *This covers the establishment of a headquarters*
  + Social Roles
    - SocialRole 🡪 **Rebel**
    - SocialRole 🡪 **Civilian**
    - SocialRole 🡪 **Protester**
    - SocialRole 🡪 **Rioter**
  + TimePoint
  + Region
* Object Properties
  + **hasActor** 🡪 *subject: any of the Events, object: any of the Actors*
    - *This captures the “actor1” who is involved in the event’s action. Unfortunately, this appears to be independent of the performer and receiver of the action.*
  + **hasLocation** 🡪 *subject: any of the Events, object: Region or Region subclasses*
  + hasSocialRole 🡪 *subject: GroupOfPeople, MilitaryUnit, object: SocialRole (e.g., Civilian, Rebel)*
  + hasTime 🡪 *subject: Battle, Transfer, Riot, NonViolentSocialInteraction, Attack, RemoteAttack, EstablishingHeadquarters, , object: TimePoint*
  + **gainsGroundIn** 🡪 *subject: Organization or Group, object: Battle*
    - *This captures the cases where ground is gained in a battle (if no ground is gained, this property is not included)*
* Data Properties (default objects are strings)
  + **hasFatalityCount** – *subject: Battle, object: Integer*
  + **hasLatitude** – *subject: any of the Events*
  + **hasLongitude** – *subject: any of the Events*

1. Some elements are in **red**. These are not currently present in the data model, but will be added. Elements in **blue** are those that need to be added, but also might be restructured or renamed considerably. [↑](#footnote-ref-1)
2. <http://www.acleddata.com/> [↑](#footnote-ref-2)