Automated Analytics for SOF Operators

In the near future, a small team of SOF Operators is deployed to a complex, multiethnic, contested region to advise and assist local partners in countering malign activities. To succeed in this competitive environment, the SOF team must make sound decisions and take targeted actions faster than the adversary. The modern world provides many sources of raw data that could provide the basis for sound decisions. Currently, sifting through data to find, interpret, and present usable information is a time consuming, labor intensive job. To be Hyper Enabled, Operators need tools to allow them to organically and automatically find, refine, analyze and present the information they need to quickly make decisions and take action.

For the purposes of this tech sprint, we assume that the Operators' resources are limited to a device running the Tactical Assault Kit (TAK), disconnected from the cloud. We also assume the team has access to limited internet, though they prefer to use it as little as possible.

Vignette: New to the neighborhood

As the team moves from area to area within the contested environment, they need to quickly build situational awareness about the social, cultural, economic, and political sensitivities of the areas to and through which they will travel. The team wants to know what significant events have recently happened in the areas along their route and at their destination. They also want to know what the prevailing attitudes toward the US, our local partners, and our competitors are along the route and at the destination. Finally, they want to know if the current pattern of activity within the local population along the route is normal for that place and time. *Challenge:* Make these types of information accessible from the display on the team's TAK devices.

Scenario: Key leader engagement

To effectively advise and assist local partners, the team must establish relationships and build trust with significant members of the local population. On short notice, the team has an opportunity to meet with someone they are told is a key local leader. The team knows the leader's name, job title, and current location. To ensure that they make the most of this meeting, they need to quickly understand the leader's social, cultural, economic, and political sensitivities.

Challenge:

Build an app that takes as input the leader's name, job title, and location and returns the leader's:

- Picture
- Native language
- All citizenships held
- Affiliations
- Home town, tribal, and/or ethnic affiliation
- Political Party/Faction affiliation
- Relationships with other key host nation figures, e.g., military, political, social leaders and/or influencers
- Attitude toward the US
- Sources of income
- Known associates

Scenario: Time sensitive action

A significant member of the adversary's local network has been confirmed to be in a building in a nearby neighborhood. The team advises and assists their own local partner's internal defense force to conduct a raid on that building. To effectively assist in the planning and execution of the raid, the team must quickly build a gridded reference graphic (GRG) that encompasses the neighborhood where the target is.

Challenge:

Build an app that automatically builds GRGs for urban terrain. The app will automatically identify buildings in overhead imagery and number them in accordance with standard GRG practice. The app will also allow an operator to annotate the image with named areas of interest, phase lines, and other important geographical information. Operators must be able to share the resulting GRG with partner force members who are equipped with devices running TAK-CIV.