

## Legend

ROS Topic Name  
(ROS MSG Type)

ROS Node

# ATAK Bridge Communication

ATAK Server

Location to move to  
(Latitude, Longitude, Hdng, Alt)

Current robot location.  
(Latitude, Longitude, Alt)

Current Object locations.  
(Latitude, Longitude, Alt)

West Point ATAK Extension

atak\_bridge

/goal\_location

[atak\_msgs/PoseDescriptionStamped]

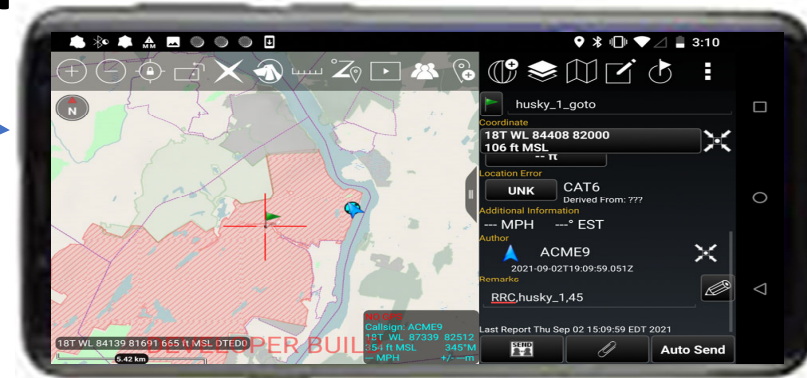
/object\_locations

[atak\_msgs/PoseDescriptionArray]

Robot Software

ROS TF

Code Running on the Robot



Android Phone Running ATAK

**ROS TF** is used to transform between coordinate systems. **A transform from base\_link to UTM is required.**

**atak\_msgs/PoseDescriptionStamped**

Message Definition

`std_msgs/Header` header

`atak_bridge/PoseDescription` pose

`geometry_msgs/Pose` pose

`std_msgs/String` description