

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/PoseDescriptionHeader]

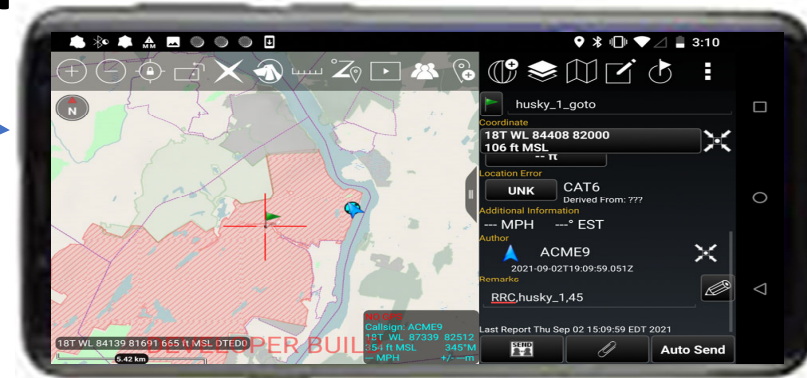
/object_locations

[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/PoseDescriptionHeader

Message Definition

std_msgs/Header header

atak_bridge/PoseDescription pose

geometry_msgs/Pose pose

std_msgs/String description