

A:

// Decision of team and target made by PMFserv

Action: informTeam **Agent:** C2 leader **Objects:** information, team, cell phone, telephone, e-mail, messengers(i.e. instruments)

AppCond: exist(agent) and exist(information)

PrepSpec: have(instrument, agent)->get(instrument, agent)

TermCond: have(information, team)

FailCond: !operate(instrument) || executeTime > duration

PostAssert: have(information, team)

DurCond: communicating(agent)

Purpose: have(information, team)

Subactions: $\forall x \in \text{team}, \text{inform}(x, \text{information}, \text{agent})$

Duration and other conditions instantiated.

L:

// Need more detail about how outdoor security is provided

D:

// Need more details: how communicated, what ambush and recce party, actions of parties

Action: informTeam

G:

// PARs have not previously been set up for teams

Action: attackSite **Agent:** redTeam **Objects:** cars, IED, locations (site, cars, IED)

AppCond: exist(redTeam members) && exist(attackSite)

PrepSpec: at(cars, location1)->put(cars, location1)

at(IED, location2)->put(IED, location2)

team(2, red)->createTeam(2, detTeam, red)

team(2, red)->createTeam(2, OPTeam, red) //need team management

TermCond: detonated(IED) && reconGathered(blueTeam, redTeam)

FailCond: failure(subactions)

PostAssert: have(infoOfBlueTeam, redTeam) && destroyed(IED) && (damaged(site) || disrupted(site)) && at(safehouse, OPTeam) && at(C2, DetTeam) && at(site, blueTeam)

DurCond: attacking(site, redTeam)

Purpose: damage(site) || disrupt(site) || at(site, blueTeam)

Subactions: H, L1, J

H:

Action: driveIED **Agent:** detTeam **Objects:** vehicle, safehouse, site, IED

AppCond: exist(safehouse) && exist(site) && exist(detTeam)

PrepSpec: at(safehouse, detTeam)->goto(safehouse, detTeam)

have(vehicle, detTeam)->get(vehicle, detTeam)

have(IED, detTeam)->get(IED, detTeam)

have(route, detTeam)->get(route, detTeam)

TermCond: at(site, detTeam) && at(site, IED)

FailCond: time > duration || blocked(route) || detonated(IED) || detected(detTeam), etc

PostAssert: at(site, detTeam) && at(site, IED) && at(site, vehicle)
DurCond: driving(defTeam) && moving(IED)
Purpose: at(site, detTeam) && at(site, IED)
Subactions: placing IED in car, humans getting in car, driving car, etc

L1:

Action: outpostOp **Agent:** opTeam **Objects:** vehicle, safehouse, convoy, outpost, commDevice
AppCond: exist(safehouse) && exist(outpost) && exist(opTeam)
PrepSpec: at(safehouse, opTeam)->goto(safehouse, opTeam)
 have(vehicle, opTeam)->get(vehicle, opTeam)
 have(commDevice, opTeam)->get(commDevice, opTeam)
 have(route, opTeam)->get(route, opTeam)
TermCond: at(outpost, opTeam) && informed(convoyLoc, detTeam)
FailCond: time > duration || blocked(route) || detected(opTeam), etc
PostAssert: at(outpost, opTeam) && at(outpost, commDevice) && at(outpost, vehicle)
&& informed(convoyLoc, detTeam)
DurCond: see subactions
Purpose: inform(convoyLoc, detTeam)
Subactions: driveOP, informDetTeam

J:

Action: detonate **Agent:** detTeam **Objects:** IED, convoy
AppCond: exist(detTeam) && exist(IED) && informed(convoyLoc, detTeam)
PreSpec: at(convoyLoc, detTeam)->goto(convoyLoc, detTeam)
 have(IED, detTeam)->get(IED, detTeam)

TermCond: detonated(IED)
FailCond: time > duration || detected(detTeam) || failure(IED)
PostAssert: destroyed(IED) && (disrupted(convoy) || destroyed(convoy))
DurCond: detonating(IED, detTeam)
Purpose: disrupt(convoy) || destroy(convoy)
Subactions: detonation procedure

J1:

Action: drive **Agent:** opTeam **Objects:** vehicle, safehouse
AppCond: exist(vehicle) && exist(opTeam) && exist(safehouse)
PreSpec: have(vehicle, opTeam)->get(vehicle, opTeam)
 have(route, opTeam)->get(route, opTeam)
TermCond: at(safehouse, opTeam)
FailCond: time > duration || blocked(route) || captured(opTeam) || failure(vehicle)
PostAssert: at(safehouse, opTeam) && at(safehouse, vehicle)
DurCond: driving(opTeam) && moving(vehicle)
Purpose: at(safehouse, opTeam)
Subactions: getting in car, driving, etc

J2:

Action: recon **Agent:** detTeam **Objects:** vehicle, blueTeam, C2, site

AppCond: ?

PreSpec: at(site, detTeam) -> goto(site, detTeam)

TermCond: time(blueTeamArrival) + 10 = duration || duration > ?

FailCond: !arrive(blueTeam) || captured(detTeam)

PostAssert: informed(blueTeam, detTeam)

DurCond: watching(detTeam)

Purpose: inform(blueTeam, detTeam)

Subactions:

NextAction: drive

Action: drive **Agent:** detTeam **Objects:** vehicle, C2

AppCond: exist(vehicle) && exist(detTeam) && exist(C2)

PreSpec: have(vehicle, detTeam) -> get(vehicle, detTeam)

have(route, detTeam) -> get(route, detTeam)

TermCond: at(C2, detTeam)

FailCond: time > duration || blocked(route) || captured(detTeam) || failure(vehicle)

PostAssert: at(C2, detTeam) && at(C2, vehicle)

DurCond: driving(detTeam) && moving(vehicle)

Purpose: at(C2, detTeam)

Subactions: getting in car, driving, etc