

# Chained Objectives Tutorial

This tutorial demonstrates how to chain together missions, how to resupply the players, how to modify the weather and some helper functions.

To complete this tutorial you will modify a mission script. The map elements needed for the tutorial are supplied.

## Preparing to Create the Mission

Copy the ChainedObjectives.Altis subdirectory to:

```
<MyDocuments>\Arma 3 - Other Profiles\<MyProfile>\missions\
```

Copy the Zen\_FrameworkFunctions directory from the Shell.Stratis directory to:

```
<MyDocuments>\Arma 3 - Other Profiles\<MyProfile>\missions\ ChainedObjectives.Altis\
```

## Review the Map

Open Arma and then the Editor. Select Altis Island and Continue.

Choose the load function and select ChainedObjectives.

Southeast of Topolia is a single BLUFOR unit. The player is the squad leader and every unit in the squad is playable.

Note that area markers can overlap and how a long narrow ellipse can keep patrolling squads mostly moving along a road.

In the interest of speeding along the completion of the tutorial the area markers are compressed.

No changes are required to the map.

## Updating the Initialization Script

Open the *init.sqf* file in

```
<MyDocuments>\Arma 3 - Other Profiles\<MyProfile>\missions\ ChainedObjectives.Altis\
```

Immediately above the lines

```
// All clients stop executing here, do not delete this line  
if (!isServer) exitWith {};
```

**Add a mission briefing statement:**

```
Player creatediaryRecord["Diary", ["Chained Objectives Tutorial",  
"Travel North and complete the objectives in turn. If necessary,  
resupply at the spawned ammo boxes.<br/>"]];
```

**At the point labeled 'Enter the mission code here' enter these statements:**

**Add to the game action list for all playable characters the ability to share ammo and re-pack magazines:**

```
0 = [(group X11)] call Zen_AddGiveMagazine;  
0 = [(group X11)] call Zen_AddRepackMagazines;
```

**Set the time to early morning with overcast:**

```
0 = [["date", 18, 8, 10, 3, 2035]] spawn Zen_SetWeather;  
0 = [["overcast",0.6]] spawn Zen_SetWeather;
```

**Put a squad on patrol:**

```
_PatrolOneInitialPos = ["OPFORPatrolOne"] call Zen_FindGroundPosition;  
_PatrolOne = [_PatrolOneInitialPos, east, 0.5, [1,2]] call  
Zen_SpawnInfantry;  
0 = [_PatrolOne, "OPFORPatrolOne"] spawn Zen_OrderInfantryPatrol;  
_returnArray = [_PatrolOne, "group"] call Zen_TrackInfantry;
```

**Generate an objective:**

```
_Objective1Pos = ["BLUFORObjectiveAreaOne"] call  
Zen_FindGroundPosition;  
_yourObjective1 = [_Objective1Pos, (group X11), east,  
"Officer","eliminate"] call Zen_CreateObjective;
```

**After completing this objective spawn a ammo crate, conjure up some foggy weather and generate the next two objectives:**

```
waituntil { sleep 5; [(_yourObjective1 select 1)] call  
Zen_AreTasksComplete };  
  
_ResupplyOnePos = ["BLUFORResupplyOne"] call Zen_FindGroundPosition;  
0 = [_ResupplyOnePos, west] call Zen_SpawnAmmoBox;  
0 = [_ResupplyOnePos, "Ammo Box", "ColorBlue",[1,1],"mil_flag"] call  
Zen_SpawnMarker;  
  
0 = [["fog", 0.9]] spawn Zen_SetWeather;  
  
_Objective2APos = ["BLUFORObjectiveAreaTwo"] call  
Zen_FindGroundPosition;  
_yourObjective2A = [_Objective2APos, (group X11), east,  
["Mortar","Wreck","Officer"],"eliminate"] call Zen_CreateObjective;
```

```

_Objective2BPos = ["BLUFORObjectiveAreaTwo"] call
Zen_FindGroundPosition;
_yourObjective2B = [_Objective2BPos, (group X11), west,
["POW"],"rescue"] call Zen_CreateObjective;

```

After completing this objective spawn a Nato weapon and ammo box, call down some rain and generate a custom objective. Note that *Zen\_AreTasksComplete* waits until both tasks are complete before continuing to next line of script.

```

waituntil { sleep 5; [(_yourObjective2A select 1),(_yourObjective2B
select 1)] call Zen_AreTasksComplete};

```

```

_ResupplyTwoPos = ["BLUFORResupplyTwo"] call Zen_FindGroundPosition;
0 = [_ResupplyTwoPos, "Box_NATO_Wps_F"] call Zen_SpawnVehicle;
0 = [_ResupplyTwoPos, "Nato Ammo", "ColorBlue",[1,1],"mil_join"] call
Zen_SpawnMarker;

```

```

0 = [{"fog",0.9,0.1,120},["overcast",0.9],["rain",1.0]] spawn
Zen_SetWeather;

```

```

_Objective3Pos = ["BLUFORObjectiveAreaThree"] call
Zen_FindGroundPosition;
_yourObjective3 = [_Objective3Pos, (group X11), west,
"Custom","reach","B_Heli_Light_01_F"] call Zen_CreateObjective;

```

Fly your squad to safety and then end the mission.

```

waituntil {
    sleep 2;
    ((X11 distance _ObjectiveThreePos) > 1000)
};
endMission "end1"

```

## Play the Mission.

To launch this mission from inside the editor select 'Preview'.

## Post-Mortem

If you played the mission here's what you should have seen:

- A briefing
- A single squad patrolling the road
- A 'chained' series of objectives.
- After flying 1000 meters the mission should end.

## Technical Corner

This tutorial ties together some features of the objective system that you've already seen and introduces some 'nice to have' Framework functions.

## Action Menu Abilities

The *Zen\_AddGiveMagazine* function allows for quick sharing of ammo among units. It is especially useful when a played character wants to re-supply an AI unit. Stand next to the AI unit and show the action menu; the give magazine option will be there.

The *Zen\_AddRepackMagazines* function gives the player a fast repack function. Both functions modify the standard Arma III action list.

## Resupply

What better way to reward a player that has completed an objective than to give them an opportunity to resupply? The *Zen\_SpawnAmmoBox* function spawns a random box of weapons, ammo, medical supplies, etc. Use *Zen\_SpawnVehicle* function to place a specific ammo box.

## Weather System

Setting the mission start date and time and adjusting the weather are provided in one Framework function.

These are the general rules for changing weather using a single call of the *Zen\_SetWeather* function:

Any weather effect and any combination of weather effects can be set immediately.

For example: `[["gusts",0.5],["overcast",0.5],["rain",1.0]] spawn Zen_SetWeather;`

The setting of time and weather can be combined:

`0 = [["date", 18, 8, 10, 3, 2035],["overcast",0.6]] spawn Zen_SetWeather;`

## Design of Serial Objectives

This tutorial introduced some variations of the Framework's Objective System. The first objective was a standard objective as seen in previous tutorials.

The second tutorial objective that was coded requests the Objective System to choose randomly from a list. . The options must be one of these types: 'Box', 'Mortar', 'Wreck', 'Officer', or 'Convoy'.

The code for the third objective might look incorrect since it specifies side 'west'. But this makes sense since the Objective System will insert a PoW of the side 'west' into the mission.

The fourth objective is the 'custom' type. The actual vehicle to include in the objective is named.