Quick Start Guide

VBS4 23.2.0

Bohemia Interactive SIMULATIONS

Documentation Legal Notice

This Documentation, including any embedded help systems and electronically distributed materials, (hereinafter referred to as the “Documentation”) is for your informational purposes only and is subject to change or withdrawal by Bohemia Interactive Simulations (BISim) at any time. This Documentation and its contents are proprietary information of BISim, also protected by copyright, and may not be copied, transferred, reproduced, disclosed, modified or duplicated, in whole or in part, without the prior written consent of BISim.

If you are a licensed user of the software product(s) addressed in the Documentation, you may print or otherwise make available a reasonable number of copies of the Documentation for internal use by you and your employees in connection with that software, provided that all BISim copyright notices and legends are affixed to each reproduced copy.

The right to print or otherwise make available copies of the Documentation is limited to the period during which the applicable license for such software remains in full force and effect. Should the license terminate for any reason, it is your responsibility to certify in writing to BISim that all copies and partial copies of the Documentation have been returned to BISim or destroyed.

BISim has made every reasonable effort to ensure the accuracy of all the information contained in the Documentation. However, product specifications are subject to change without notice, and BISim makes no representations or warranties regarding the accuracy, completeness, or suitability of information contained in the Documentation. To the maximum extent permitted by law, BISim disclaims any and all liability for any loss, damage (direct or indirect) or other consequence which may arise from the use of or reliance upon any information contained in the Documentation.

The use of any software product referenced in the Documentation is governed by the applicable license agreement and such license agreement is not modified in any way by the terms of this notice.

Customer Support

The Bohemia Interactive Simulations Support page can be found at:

- http://www.bisimulations.com/support

For any type of assistance with Bohemia Interactive Simulations products, use the following support email and we will respond to your query with urgency.

- support@bisimulations.com

Our website contains a range of media and handouts relating to Bohemia Interactive Simulations products:

- http://www.bisimulations.com/

The BISim Wiki is the primary resource on VBS4 scripting:

https://sqf.bisimulations.com/display/SQF/VBS+Scripting+Reference

PhysX

VBS4 uses the PhysX physics engine. For more information on PhysX visit the Nvidia site.

https://gameworksdocs.nvidia.com/simulation.html

Contents

1. Quick Start Guide Overview

Welcome to the VBS4 Quick Start Guide.

This manual describes an end-to-end walkthrough for VBS4, from installation to After-Action Review, highlighting the primary features of VBS4.

WARNING

The Quick Start Guide uses a VBS4 Admin Client running a Hosted Scenario with an installed and running VBS World Server.

If needed, you can create the Quick Start Scenario without being connected to VBS World Server. For more information, see VBS4 Client Hosted Scenario Execution in the Introduction to VBS4 Guide, which covers both the Online execution, connected to a VBS World Server, and Offline execution, not connected to a VBS World Server.

In both Online and Offline execution, the Scenario (Battlespace) files are created and edited locally on your computer. If you want to upload your Scenario to the VBS World Server, see Synchronize Battlespaces in the Introduction to VBS4 Guide.

VBS4 uses Modes to mark separate stages of the training process and this Quick Start Guide follows that structure to clearly outline how to perform an end-to-end use case:

1. Deploy VBS4 for a group exercise as described in Group Training in the VBS4 Deployment Guide.
2. Prepare the Scenario (on the next page)

   Create a Battlespace and then define your Scenario using the terrain, plan, and mission editing capabilities of VBS4.
3. Execute the Scenario (on page 46)

   Run the Scenario as the Instructor with two Trainees participating in a multiplayer exercise.
4. Assess the Scenario (on page 55)

   Playback the Scenario to review the performance of the Trainees.

2. Prepare the Scenario

VBS4 provides a set of Tools that enable Mission Designers to create detailed and varied Scenarios to meet their training needs.

In this Quick Start Guide, we create a small example scenario that demonstrates the primary features of VBS4.

This scenario places BLUFOR troops in the vicinity of a small town in Poland, with orders to assault an OPFOR position.

As an Administrator, start the VBS4 Admin Client and connect to the VBS World Server.

1. On the VBS4 Admin Client, start VBS Launcher:

   `\VBS_Installation\VBSLauncher.exe`

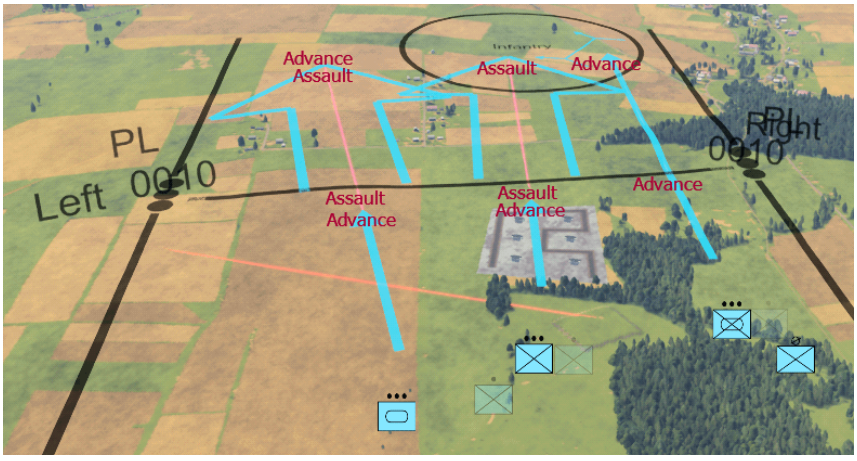
2. In the **VBS4 > Client** tab, use the **Preset** drop-down to select the **Admin** profile.
3. In the **VBS4 > Client** tab, in **VBS4 Online**, click **Refresh**, and select or input the IP Address of the VBS World Server.
4. Click **Launch Modules**.

VBS4 starts and connects to the VBS World Server, and the VBS4 User Interface opens in Battlespaces Mode.

Creating the Quick Start Scenario consists of the following process:

1. Create the Battlespace (on the next page)
2. Modify the Terrain (on page 11)
3. Create the Plan (on page 26)
4. Modify the Mission (on page 37)
5. Scenario Preview (on page 44)

A prepared Quick Start Scenario resembles the following image and you are ready to Execute the Scenario (on page 46).



2.1 Create the Battlespace

VBS4 uses the Battlespace as the primary concept that contains all the elements that define a specific Scenario.

For the purpose of the Quick Start Scenario, we are using the high-fidelity terrain inset of Bystrzyca Klodzka in Poland.

Follow these steps:

1. In the VBS4 Toolbar, make sure that the **Battlespaces** tab is selected.

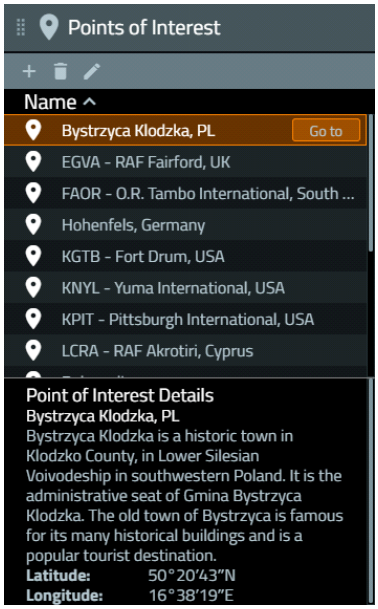
   > **NOTE**
   > When starting the VBS4 Admin Client, the Battlespaces tab is selected by default.

2. In the VBS4 Toolbar, click the **Point of Interest (POI) Icon**.

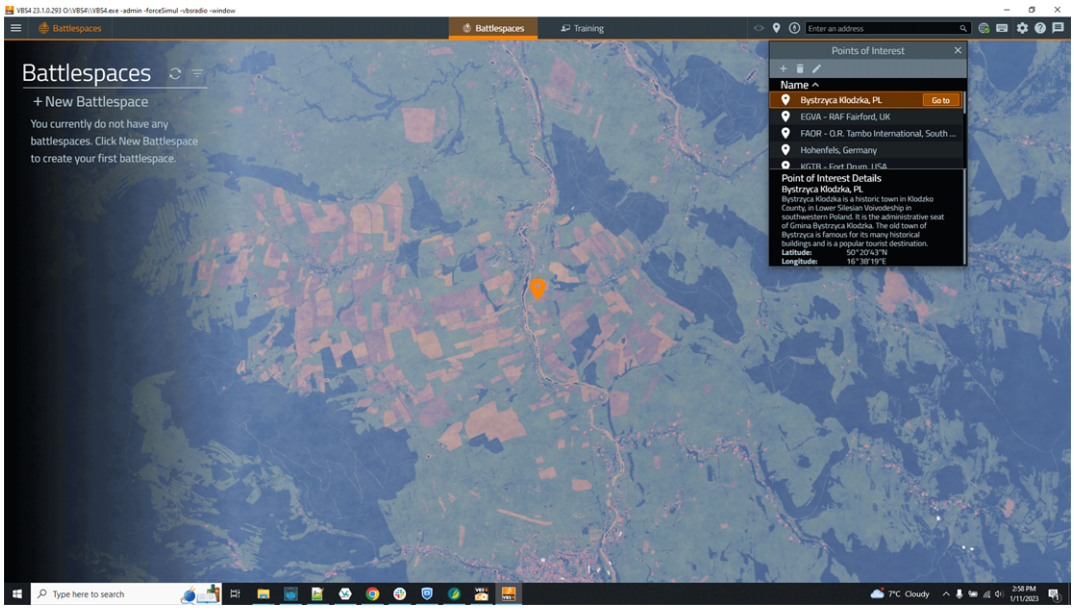
   

   The Points of Interest Panel opens.

3. In the Points of Interest Panel, select **Bystrzyca Klodzka, PL**, and click **Go to**.

   The Whole-Earth Terrain rotates directly above the town in Poland.

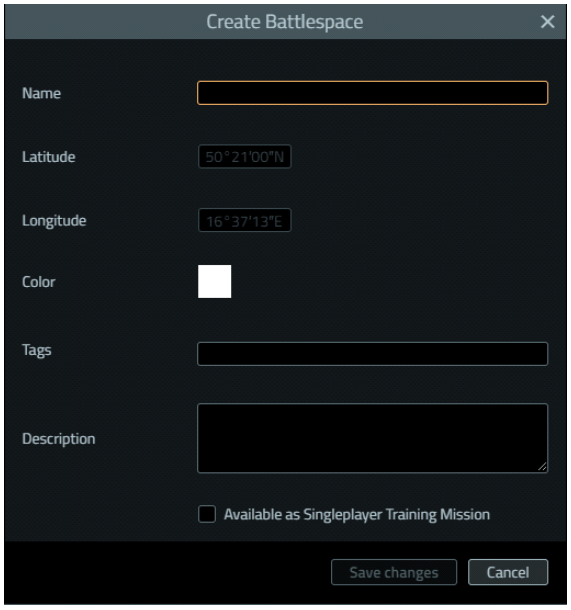


4. In the Search Bar of the VBS4 Toolbar, input the coordinates **50.35, 16.62**, and then press **Enter**.

   Use the **Mouse Scroll Wheel** to zoom in to view the area displayed in the following image:

5. Click **+ New Battlespace** and click the location of the **yellow** circle.

   The Create Battlespace Dialog opens displaying the coordinates selected.



6. Input the following details in the Create Battlespace dialog:

Parameter	Value
Name	Quick_Start
Color	**Green** #36b82c
Tags	quickstart
Description	Quick Start Scenario

7. Click **Save Changes**.

VBS4 adds the Battlespace to the Battlespaces List, and a **green** icon to the Whole-Earth Terrain.

You can now start to prepare your scenario.

Do one of the following:

- Click the **green** Battlespace icon.

  The Battlespace icon becomes **orange**, indicating that the Battlespace is selected.

- In the Battlespaces List, select **Quick_Start**.

The Battlespace Functions Panel and Battlespace Details display open.

To continue preparing the Quick Start Scenario, select the **Geo** option to start terrain editing.

For more information, see Modify the Terrain (on the next page).

2.2 Modify the Terrain

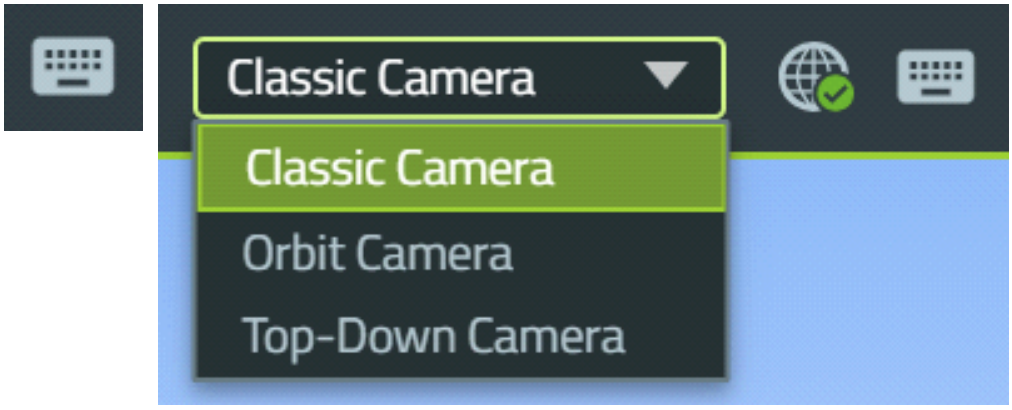
VBS4 includes VBS Geo, enabling terrain modification as part of Scenario Preparation.

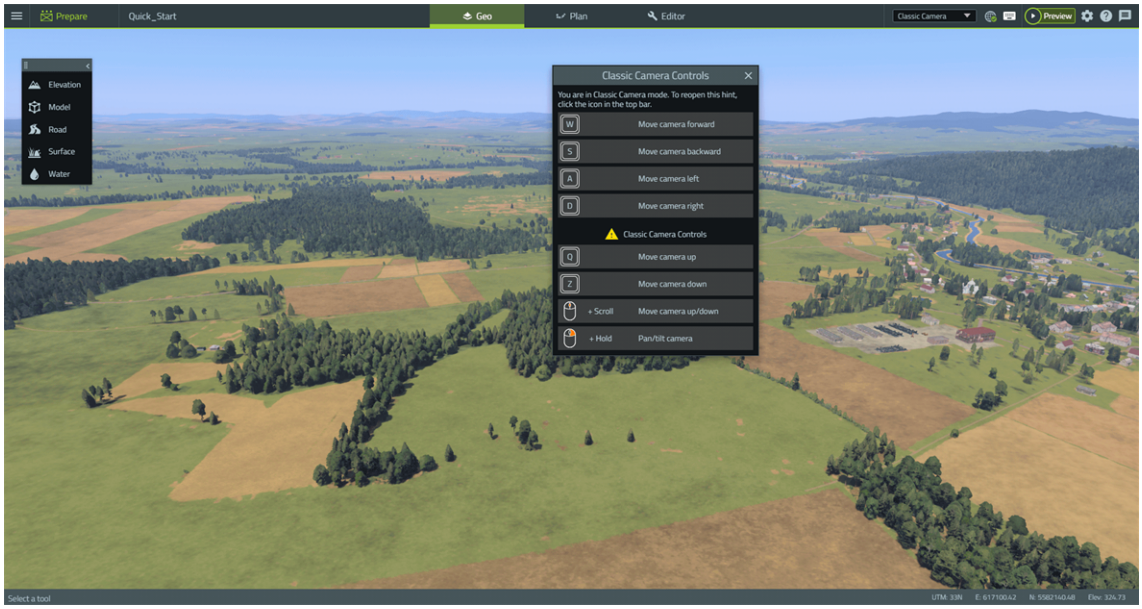
For the purposes of the scenario, use VBS Geo to alter the terrain to the west of the Battlespace Marker.

Follow these steps:

1. Do one of the following:
   - From the Battlespaces List, select **Quick_Start**, highlight **Geo** in the Battlespace Functions Panel, and click **Create**.
   - From VBS Plan or VBS Editor, click **Geo** in the VBS4 Toolbar.

   VBS4 opens the VBS Geo UI in Prepare Mode to enable terrain editing.
2. Press the **Keyboard** icon in the VBS4 Toolbar, and use the Camera Controls to move back and tilt down to view the area shown in the following image, depending on your Camera choice (Classic, Orbit, or Top-Down Camera - see Camera Controls in the VBS Geo Manual):





3. Create a raised plateau Using the Elevation Tool (below).
4. Clear a surface area Using the Surface Tool (on page 15).
5. Add buildings to the altered surface area Using the Model Tool (on page 17).
6. Add a new road in the area Using the Road Tool (on page 24).

Do one of the following:

- To continue preparing the Quick Start Scenario later, expand the VBS4 Main Menu and select **Close Prepare** to return to Battlespaces mode.
- To continue preparing the Quick Start Scenario now, in the VBS4 Toolbar, click **Plan** to switch directly to VBS Plan.

  For more information, see Create the Plan (on page 26).

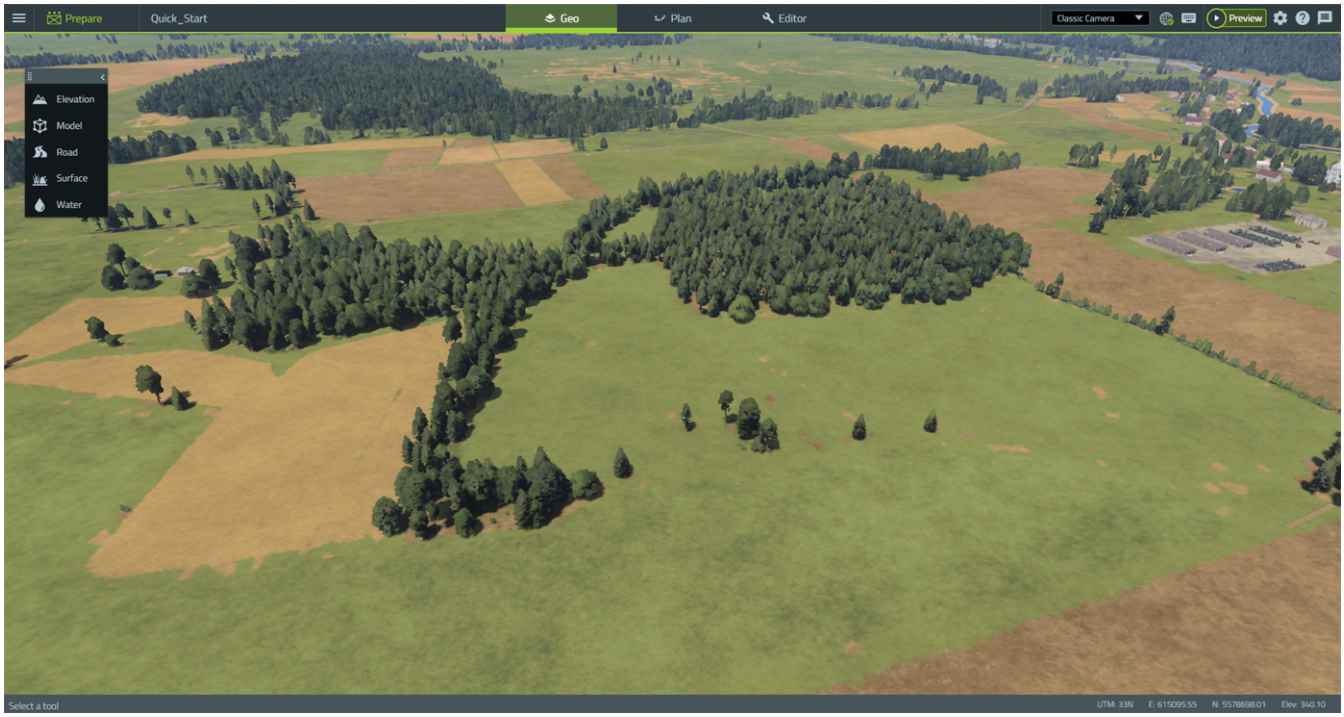
2.2.1 Using the Elevation Tool

The Elevation Tool in VBS Geo enables you to raise or lower the default terrain surface to create large or small terrain deformations.

For the purpose of the Quick Start Scenario, create a plateau.

Follow these steps:

1. Zoom in to the area shown in the following image:



2. From the VBS Geo Tools Panel, select **Elevation > Area**.

The cursor changes to a **blue circle** ready to draw the Area.

3. Use the Elevation Area Tool to draw a diamond shape:
   - Click a first position in one corner.
   - Click three more positions to define the shape.
   - Press **Enter**.

   VBS Geo draws an area on the terrain that should resemble the following image:

4. In the Elevation Tool Options Panel, select the Elevation properties.

Property	Value
Elevation Type	Raise Elevation 
Transition	5m
Offset	10m

5. Click **Apply**.

   VBS Geo creates a flat raised area, 10 meters high, with sloped edges extending another 5 meters on each side down to the base surface height.

   For more information about the VBS Geo Elevation Tool, see Editing Terrain Elevation in the VBS Geo Manual.

6. Click the **Main Menu** icon in the VBS4 Toolbar, and under **Battlespaces**, select **Save**.

   VBS4 saves your terrain Geo Project as part of the Battlespace.

2.2.2 Using the Surface Tool

The Surface Tool in VBS Geo enables you to replace the default terrain with alternate surfaces, specific to the applicable biome.

For the purpose of the Quick Start Scenario, clear an area to the west of the terrain elevation edit by replacing grass, trees, and fields, with a man-made surface.

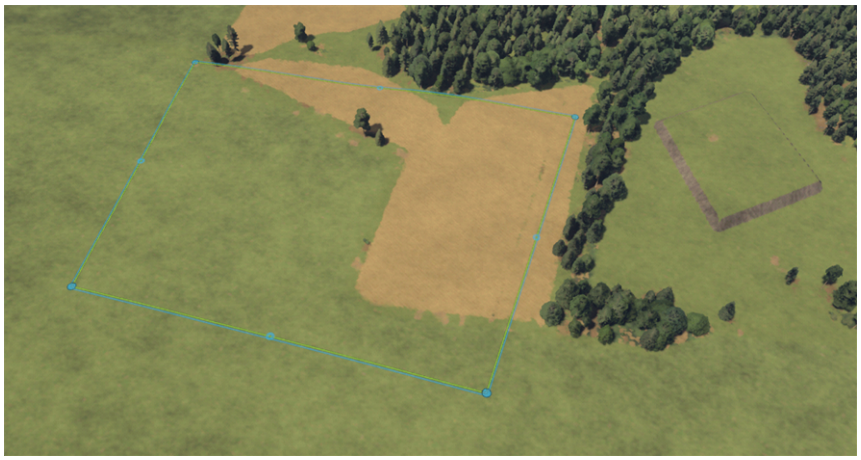
Follow these steps:

1. From the VBS Geo Tools Panel, select **Surface > Area**.

   The cursor changes to a **blue circle** ready to draw the Area.

2. Use the Surface Area Tool to draw a rectangle that covers the trees and fields to the west of the new plateau:
   a. Click a first position in one corner.
   b. Click three more positions to define the rectangular shape.
   c. Press **Enter**.

   VBS Geo draws an area on the terrain that should resemble the following image:

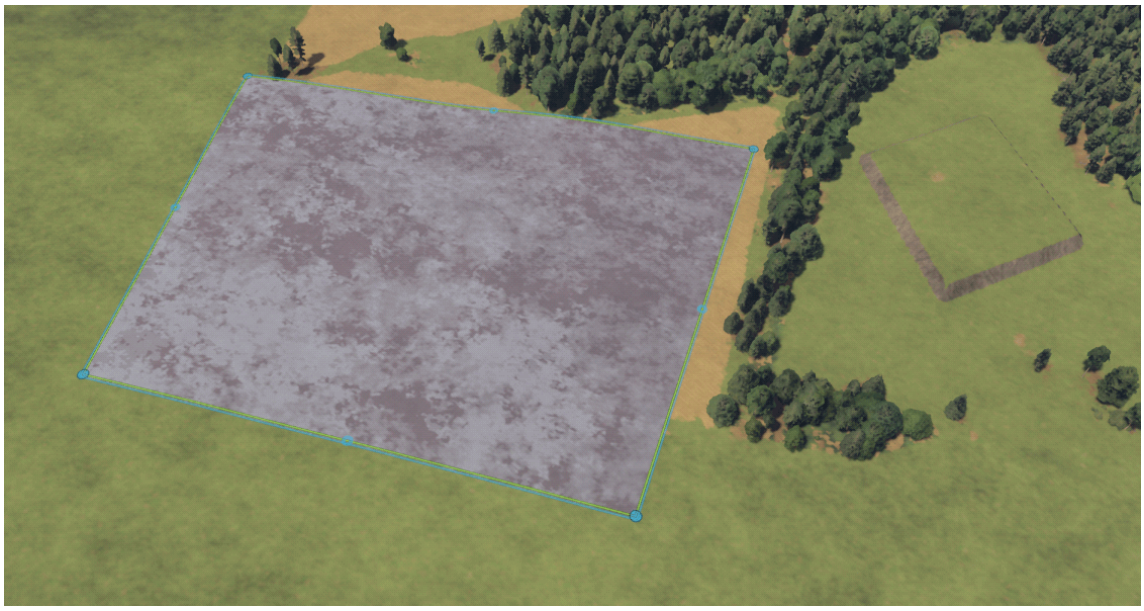


3. In the Surface Tool Options Panel, select the Multiple Surfaces option, and set the Surface properties.

Property	Value
Transition	1m
Surface A	Asphalt Cracked
Mix	Leave as is
Surface B	Gravel

4. Click **Apply**.

   VBS Geo removes the trees, grass, and field surfaces and replaces them with the mixed urban surface.



   For more information about the VBS Geo Surface Tool, see Editing Terrain Surfaces in the VBS Geo Manual.

5. Click the **Main Menu** icon in the VBS4 Toolbar, and under **Battlespaces**, select **Save**.

   VBS4 saves your terrain Geo Project as part of the Battlespace.

2.2.3 Using the Model Tool

The Model Tool in VBS Geo enables you to add specific objects from the extensive Model Library of objects, including vegetation, buildings, signposts, fences, and walls.

> **NOTE**
> The VBS Geo Model Library is separate from the set of objects available in VBS Editor.

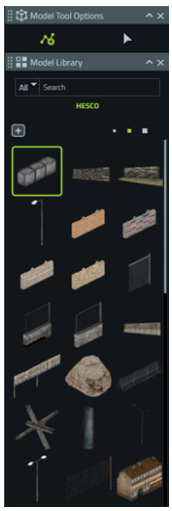
For the purpose of the Quick Start Scenario, add a circular enclosure on the plateau and some buildings on the mixed urban surface.

Select the Model:

1. Position the Camera above the plateau, created in Using the Elevation Tool (on page 12).
2. From the VBS Geo Tools Panel, select **Model > Line**.

The Model Library Panel opens to enable model selection.

3. In the Model Library Panel, select **HESCO**.



The cursor changes to a **blue circle** ready to draw the model.

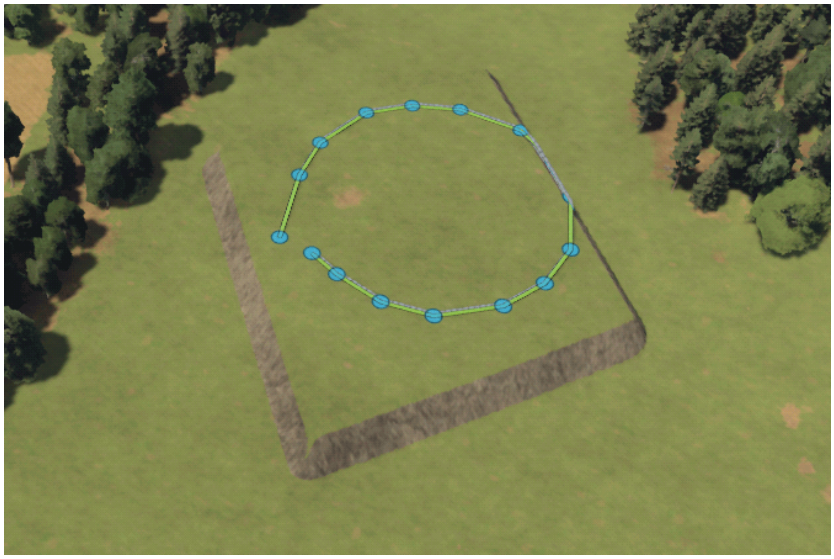
Create the Enclosure:

Use the Linear Model Tool to draw a circular enclosure on the plateau:

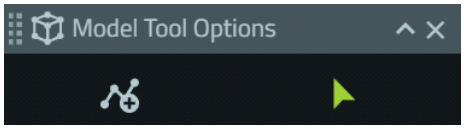
1. Click a first position, where the enclosure should start, and click another position near it, to define the first enclosure segment.
2. Press **Space** to switch to Curve Mode drawing.
3. Press **Ctrl + Mouse Scroll Wheel** to change the circular enclosure radius.
4. Follow the circular enclosure visualization with the mouse cursor, to designate the enclosure segments.

5. When you have the required number of enclosure segments visualized, click the **LMB** and press **Enter** to confirm.

   VBS Geo draws a circular enclosure on the plateau:



6. In the Model Tool Options, select **Edit**.



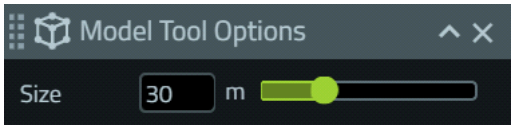
7. Click the enclosure and drag it, to position it at the center of the plateau.

VBS Geo moves the circular enclosure to the center of the plateau.

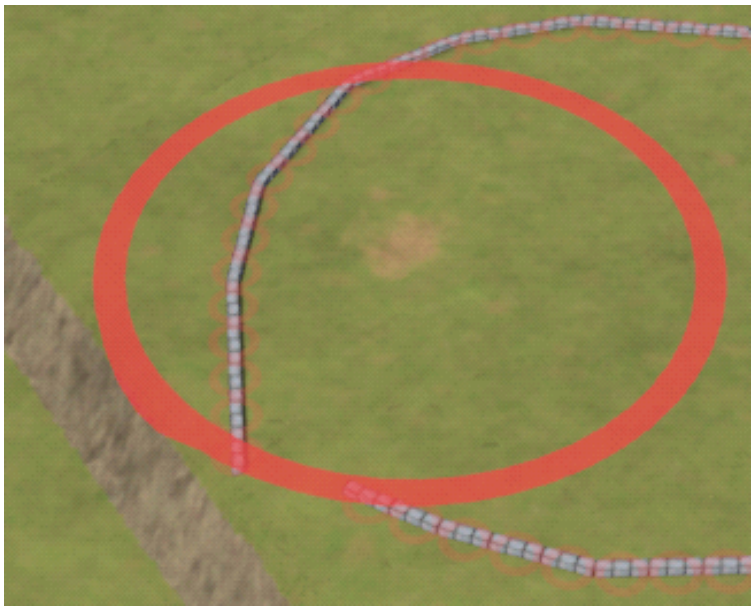
To Erase a Placed Model:

1. Select **Erase**, or click the **RMB** and in context menu select the eraser icon.

2. In the Model Tool Options, set the eraser size (in meters).



A red eraser circle appears around the model.



3. Click to erase the model.

Add Buildings:

1. Position the Camera above the mixed urban surface, created in Using the Surface Tool (on page 15).
2. From the VBS Geo Tools Panel, select **Model > Point**.

The Model Library Panel opens to enable model selection.

3. In the Model Library Panel, type **OD36** in the search bar.

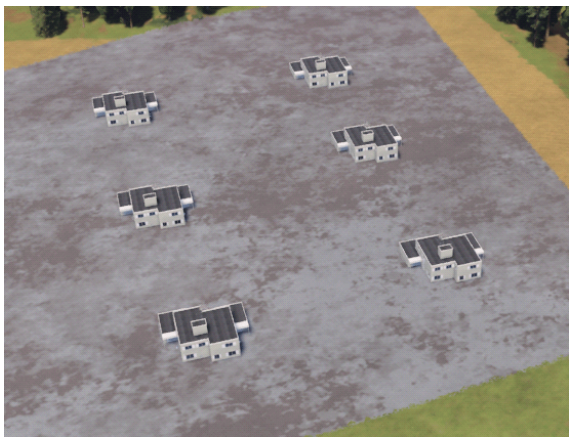
   VBS Geo filters the Model Library as you type to display models that match your search.

4. In the Model Library Panel, select the building.

   VBS Geo highlights the selected object and changes the cursor to a **green circle** containing the object model.

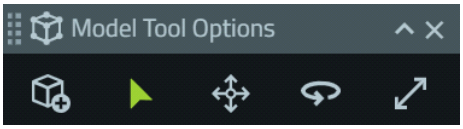
5. Use the Model Place Tool to place several buildings:
   - Click a position to place the first building.
   - Click additional positions to place more buildings.

   VBS Geo places a building in each position and should resemble the following image:



Placed objects can be moved and realigned. Use the Model Edit Tool to reorient them.

From the VBS Geo Model Tool Options Panel, select **Edit**.



Objects can be moved individually:

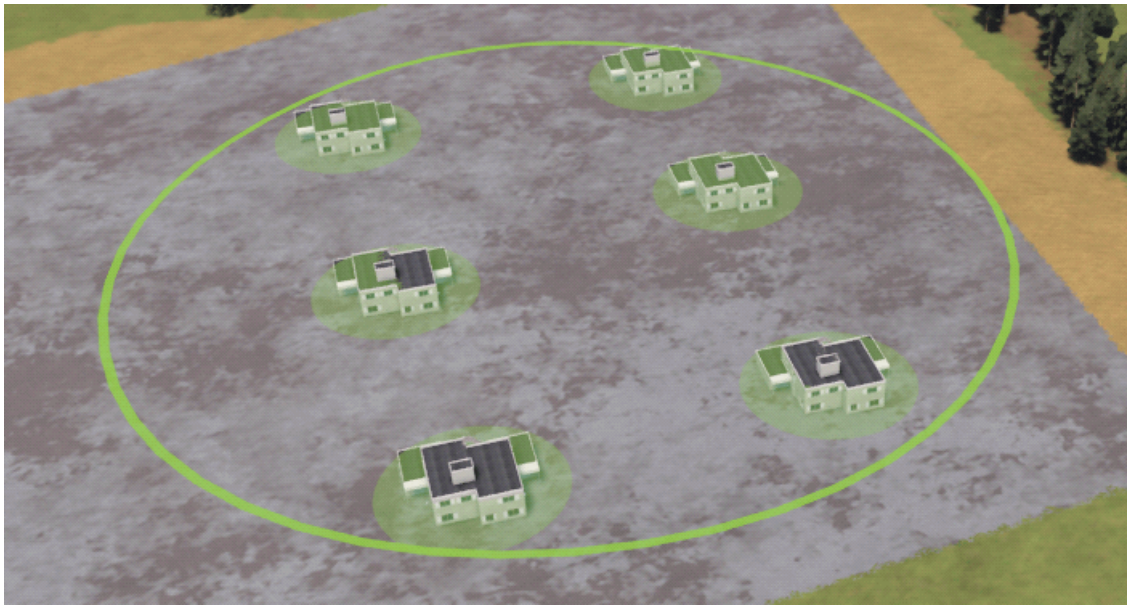
1. Click one of the buildings to select it.

   VBS Geo highlights to object with a **green circle**.
2. Drag and drop the building closer to the other buildings.
3. Repeat for the other buildings.

Objects can be moved collectively:

1. Click any of the buildings.
2. Hold **LCtrl** and click all the other buildings.

   VBS Geo highlights each building with a **green circle** and places another larger **green circle** around them all.



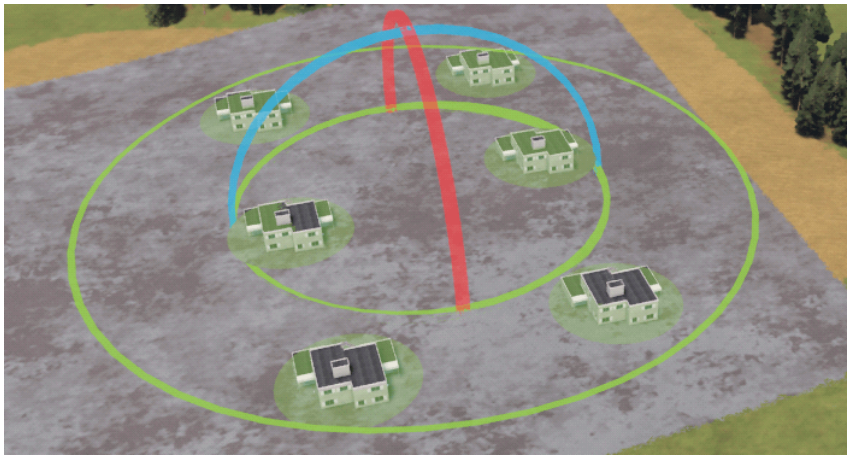
3. Click and drag anywhere in the larger circle to move all the buildings to the left.

Objects can be rotated individually or collectively:

1. Click any of the buildings, then hold **LCtrl** and click the other buildings.
2. In the Model Tool Options Panel, select the **Rotation Tool.**

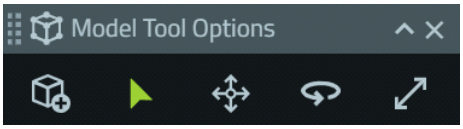
   

   VBS Geo adds rotation circles around the selected objects.

3. Drag the **green circle** to rotate the selected buildings (in the horizontal plane around the vertical axis) until they are rotated 90 degrees anti-clockwise.

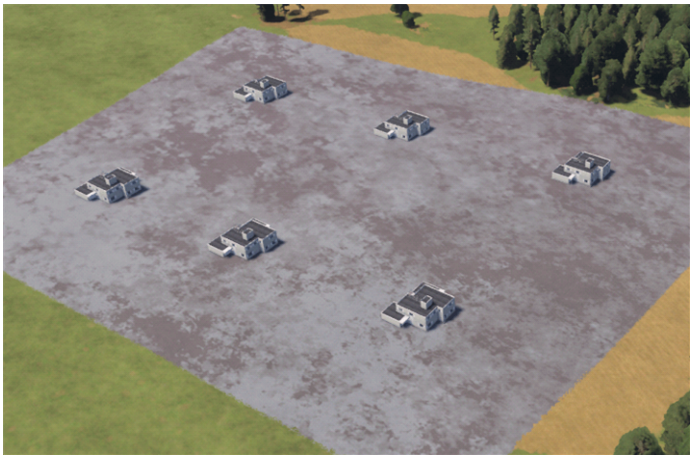
Experiment with the Model Tool Options to move the buildings.



TIP

Select models and press **LCtrl + C** and then **LCtrl + V** to copy-paste.

The result should resemble the following image:



For more information about the VBS Geo Model Tool, see Placing and Editing Models in the VBS Geo Manual.

Click the **Main Menu** icon in the VBS4 Toolbar, and under **Battlespaces**, select **Save**.

VBS4 saves your terrain Geo Project as part of the Battlespace.

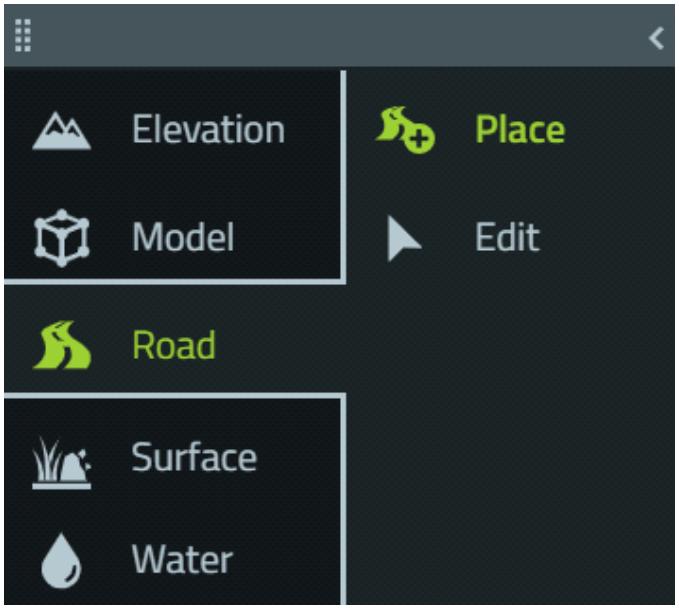
2.2.4 Using the Road Tool

The Road Tool in VBS Geo enables you to add custom roads or rail to the terrain.

For the purpose of the Quick Start Scenario, add a road that traverses the buildings.

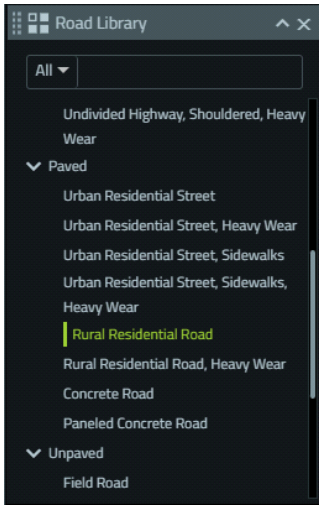
Follow these steps:

1. From the VBS Geo Tools Panel, select **Road > Place**.



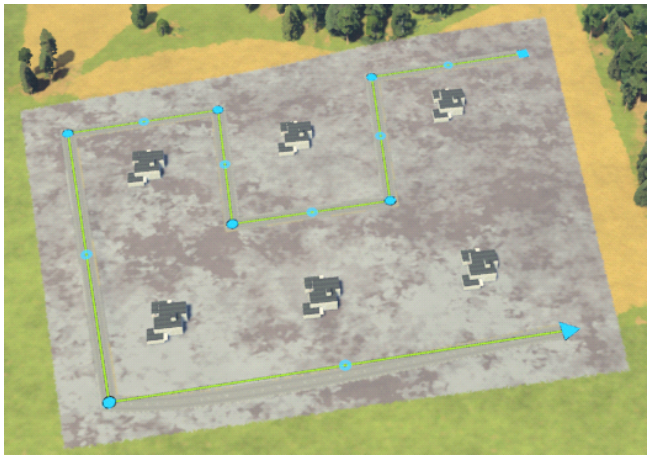
The cursor changes to a **blue circle** ready to draw the Road, and the Road Library Panel opens to enable Road Type selection.

2. In the Road Library Panel, select the **Paved > Rural Residential Road** object.



3. Use the Road Place Tool to draw a road around the buildings:
   - Click a position to start drawing the road.
   - Click additional points around the buildings.
   - Press **Enter**.

   VBS Geo creates the road along the selected path resembling the following image:



   For more information about the VBS Geo Road Tool, see Placing and Editing Roads in the VBS Geo Manual.

4. Click the **Main Menu** icon in the VBS4 Toolbar, and under **Battlespaces**, select **Save**.

   VBS4 saves your terrain Geo Project as part of the Battlespace.

2.3 Create the Plan

VBS Plan provides two primary functions; the rapid placement of Units in a scenario, and the definition of Objectives and Orders for the VBS4 AI to use.

For the Quick Start Scenario, three BLUFOR platoons Move towards and then Assault an OPFOR position.

For more information about VBS Plan, see VBS Plan Overview in the VBS Plan Manual.

Follow these steps:

1. Do one of the following:
   - From the Battlespaces List, select **Quick_Start**, highlight **Plan** in the Battlespace Functions Panel, and click **Create**.
   - From VBS Geo or VBS Editor, click **Plan** in the VBS4 Toolbar.

   VBS4 opens the VBS Plan UI in Prepare Mode to create a tactical plan and / or add graphical annotation.
2. Populate the Scenario with BLUFOR and OPFOR formations by Placing Units (on the next page).
3. Specify Objectives for BLUFOR by Placing Objectives (on page 30).
4. Specify Orders for BLUFOR by Assigning Orders (on page 31).
5. Regulate Unit movement by Placing Boundary and Phase Lines (on page 34).
6. Build the Mission (on page 36).

Do one of the following:

- To continue preparing the Quick Start Scenario later, expand the VBS4 Main Menu and select **Close Prepare** to return to Battlespaces mode.
- To continue preparing the Quick Start Scenario now, in the VBS4 Toolbar, click **Editor** to switch directly to VBS Editor.

  For more information, see Modify the Mission (on page 37).

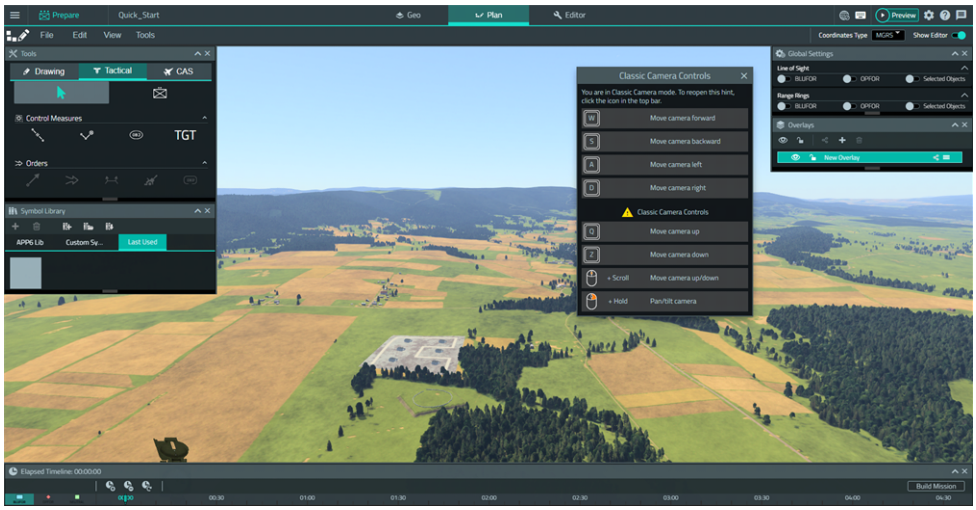
2.3.1 Placing Units

The Tactical Unit Symbol Tool in VBS Plan enables you to place entire Unit hierarchies into a Scenario, from Fire Team up to Platoon, in a single action.

For the Quick Start Scenario place OPFOR and BLUFOR units.

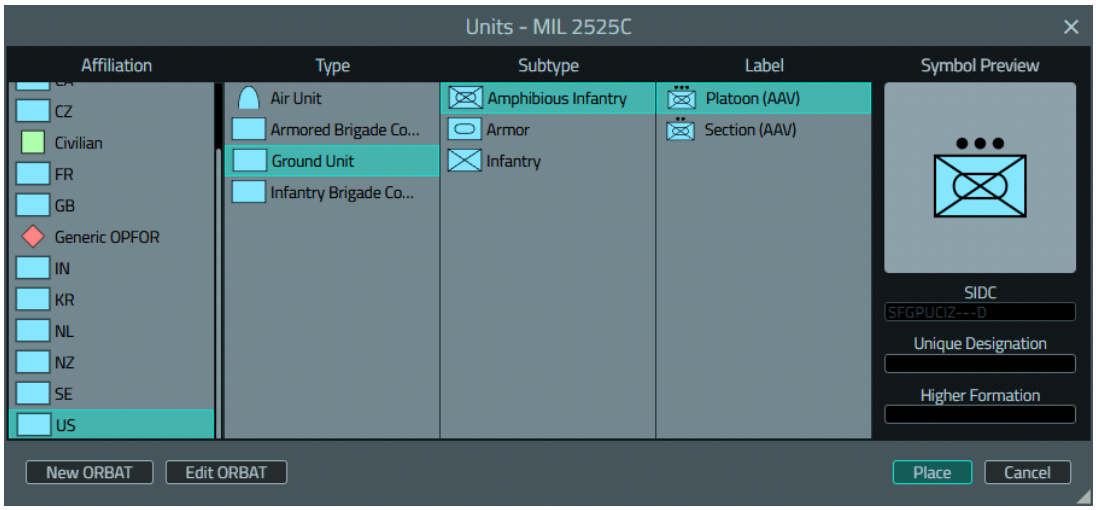
Follow these steps:

1. Use the Classic Camera controls to zoom out and rotate to view the terrain to the west, as shown in the following image:



2. In the VBS Plan Tools Panel, click the **Tactical** tab.
3. Click the **Tactical Unit Tool**.

The Tactical Units table opens.



4. Select and place BLUFOR forces near the terrain edits:

   For each of the units, click **Place** (the Tactical Units table disappears - repeat the previous step to open the table again to select the other units), and then click the location, specified for each unit type in the following list, to place the unit:

   > **NOTE**
   >
   > For each BLUFOR unit, ensure that **Playable Unit** in **Unit Properties** is unchecked (playable VBS Plan units intended for AI execution with limited player functionality). Trainees can choose from units created in Adding a Trainee Group (on page 43).

   - Select **US > Ground Unit > Infantry > Platoon**.

     Place at a location between the plateau and the new buildings.

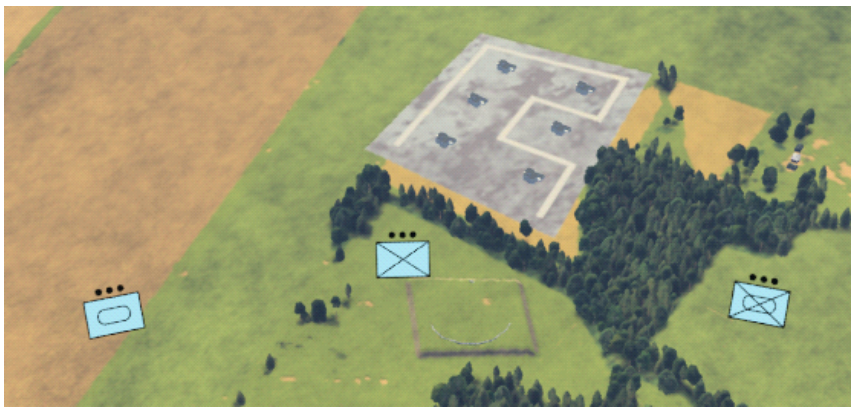
   - Select **US > Ground Unit > Armor > Platoon (M1A2)**.

     Place at a location in the field to the south of the new buildings.

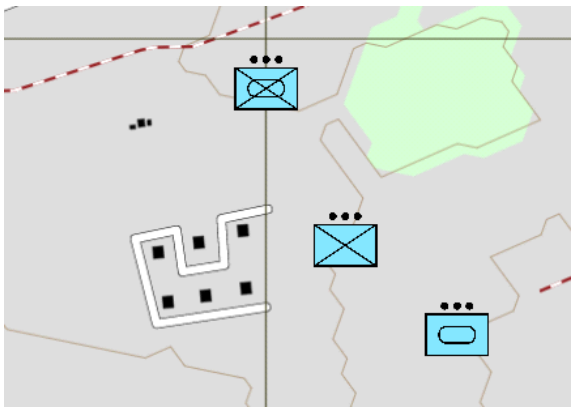
   - Select **US > Ground Unit > Amphibious Infantry > Platoon (AAV)**.

     Place at a location in the field to the north of the new buildings.

   VBS Plan places the applicable military symbols in the Scenario.

   Press **Map** (**M**) to switch between the 2D and 3D Views:

5. Similarly, select and place OPFOR further away from the new buildings:

> **NOTE**
>
> For each of the placed OPFOR forces, make sure that **Playable Unit** in **Unit Properties** is unchecked (playable VBS Plan units are designed for AI execution and have limited player functionality). Trainees can choose from units created in Adding a Trainee Group (on page 43).

- Select **Generic Opfor > Ground Unit > Infantry > Squad**.

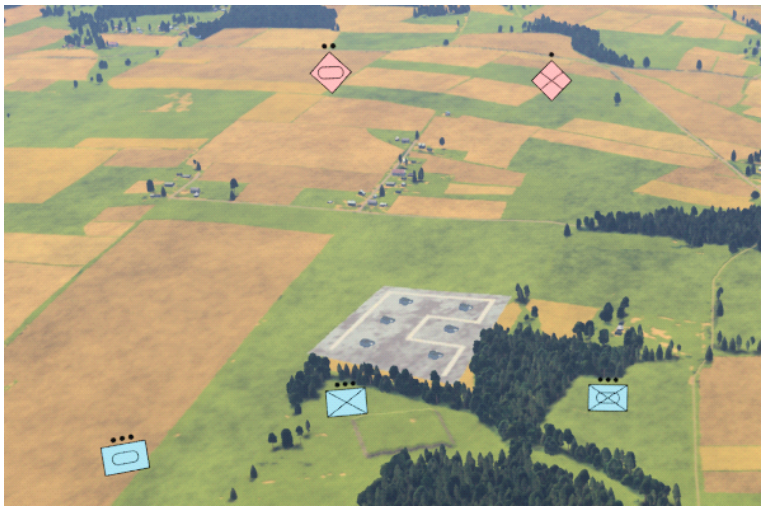
  Place at a location further away from the new buildings.

- Select **Generic Opfor > Ground Unit > Armor > Section (T-80)**.

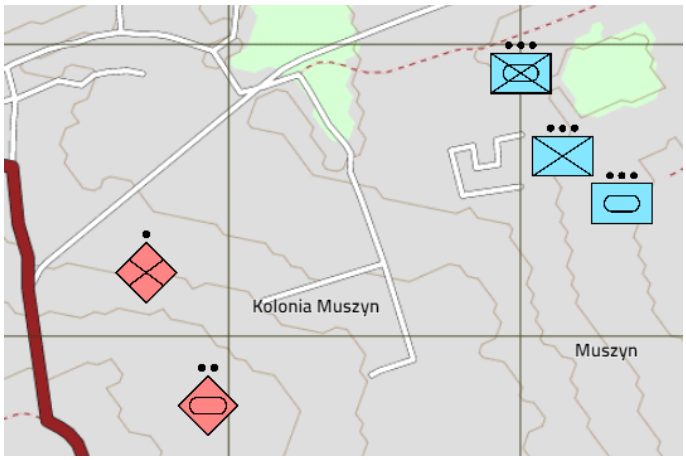
  Place at a location a reasonable distance from the first unit, to the south.

VBS Plan places the applicable military symbols in the Scenario.

In the 3D View, OPFOR and BLUFOR units should look like this:



And in the 2D View, like this:



6. Click the **Main Menu** icon in the VBS4 Toolbar, and under **Battlespaces**, select **Save**.

VBS4 saves the Tactical Plan as part of the Battlespace.

2.3.2 Placing Objectives

The Objective Tool in VBS Plan enables you to mark areas of interest in the Scenario, that can be used in Orders.

For the Quick Start Scenario, place an Objective at the OPFOR infantry position.

Follow these steps:

1. In the VBS Plan Tools Panel, select the Objective Tool.

The Properties Panel displays the Objective properties.

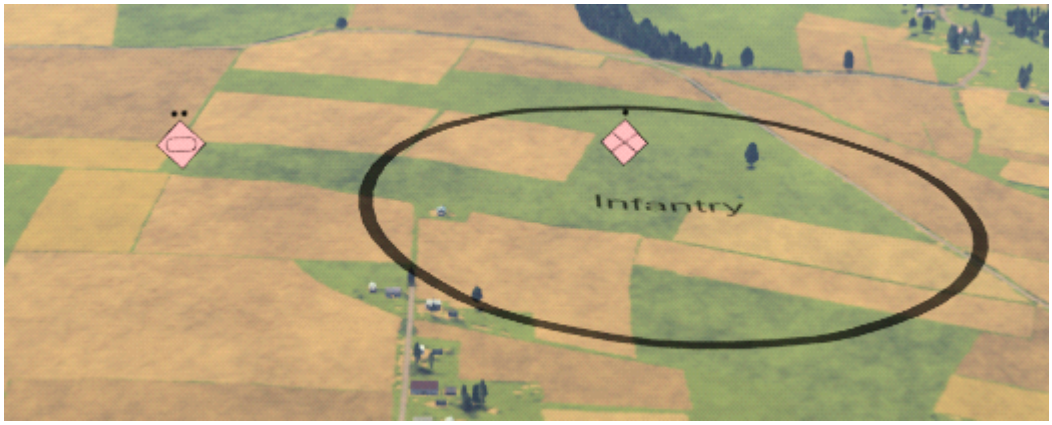
2. Specify the Objective properties:

Property	Value
Name	Infantry
Font	Arial
Font Size	50m
Render Text on Surface	Selected

3. Place the first Objective.
   a. Click the position of the OPFOR Infantry Unit and hold the **LMB**.
   b. Drag the mouse and release the **LMB** to set the initial size.
   c. Use the **yellow** control points to resize and rotate the Objective.
   d. Click and drag the objective to the required position, around the Infantry Unit.

4. Use the rotation control point to reorient the Objective.

   VBS Plan creates the Objective in the Scenario.



5. Click the **Main Menu** icon in the VBS4 Toolbar, and under **Battlespaces**, select **Save**.

   VBS4 saves the Tactical Plan as part of the Battlespace.

2.3.3 Assigning Orders

VBS Plan enables you to give Orders to units as part of a Tactical Plan. When the Scenario Executes, the VBS4 AI follows the assigned orders.

For the Quick Start Scenario, use the Advance Order for the BLUFOR units to move towards the OPFOR units, and then engage the OPFOR units, using the Assault and Suppress Orders (the latter Order requires the Objective).

Give Orders to the BLUFOR Armor Unit:

1. Select the BLUFOR Armor Unit.
2. In the VBS Plan Tools Panel, select the Advance Order Tool.

3. Draw the Advance Order:
   a. Click at points in the terrain to specify a movement path towards the OPFOR Armor Unit.
   b. Double-click at the final point to end the Advance Order.

4. In the VBS Plan Tools Panel, select the Assault Tool.

5. Draw the Assault Order:
    - Double-click at the position of the OPFOR Armor Unit.

VBS Plan draws the Orders on the terrain, and updates the Timeline with the expected timings.

Give Orders to the BLUFOR Infantry Unit:

1. Select the BLUFOR Infantry Unit.
2. In the VBS Plan Tools Panel, select the Advance Order Tool.

3. Draw the Advance Order:
    a. Click at points in the terrain to specify a movement path towards the OPFOR Infantry Unit.
    b. Double-click at the final point to end the Advance Order.
4. In the VBS Plan Tools Panel, select the Assault Tool.

5. Draw the Assault Order:
    - Double-click at the position of the OPFOR Infantry Unit.

VBS Plan draws the Orders on the terrain, and updates the Timeline with the expected timings.

Give Orders to the BLUFOR Amphibious Infantry Unit:

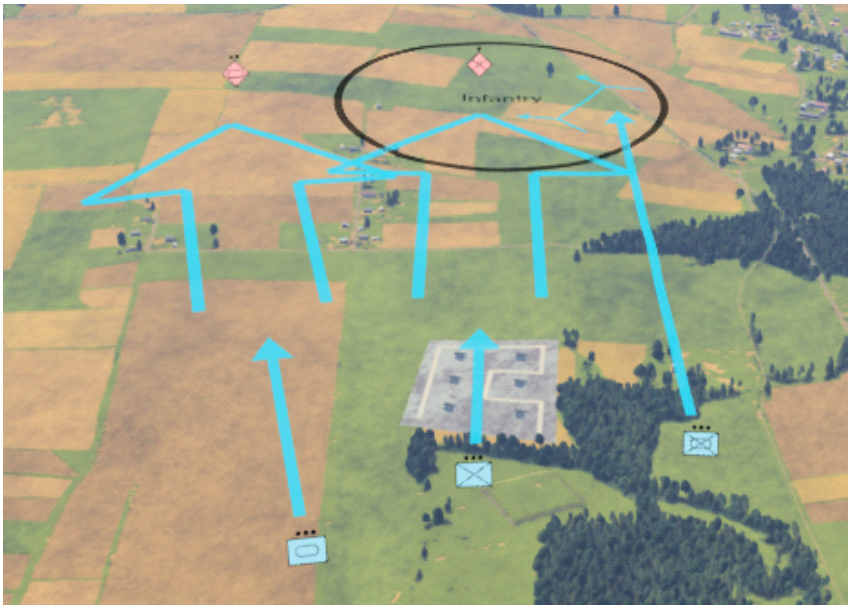
1. Select the BLUFOR Amphibious Infantry Unit.
2. In the VBS Plan Tools Panel, select the Advance Order Tool.

3. Draw the Advance Order:
    a. Click at points in the terrain to specify a movement path towards a position in range of the OPFOR Infantry Unit.
    b. Double-click at the final point to end the Advance Order.
4. In the VBS Plan Tools Panel, select the Suppress Order Tool.

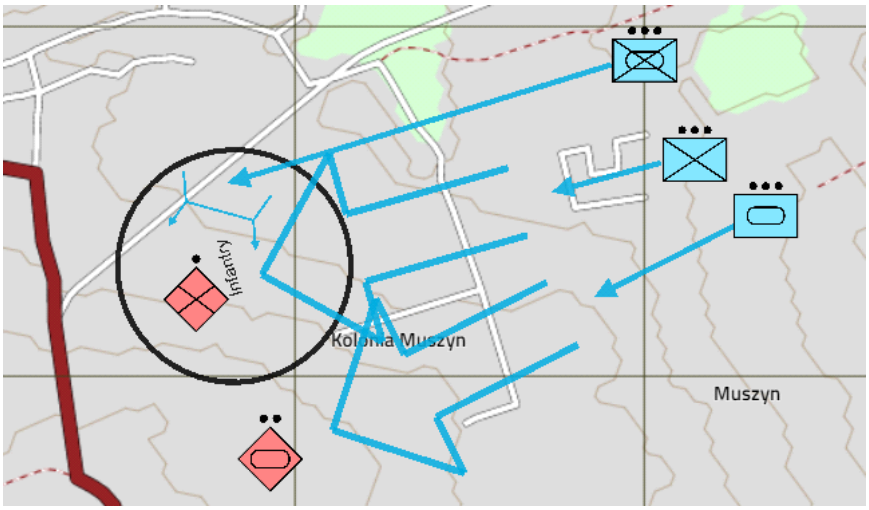
5. Place the Suppress Order:
    a. Click a position towards the OPFOR Infantry Unit.
    b. Move the mouse to rotate the Order symbol.
    c. Click again to place the Order.
    d. In the Orders Panel, specify the Infantry Objective.

VBS Plan draws the Orders on the terrain, and updates the Timeline with the expected timings.

In the 3D View, the overall set of Orders should resemble the following image:



And in the 2D View, the following image:



Click the **Main Menu** icon in the VBS4 Toolbar, and under **Battlespaces**, select **Save**.

VBS4 saves the Tactical Plan as part of the Battlespace.

2.3.4 Placing Boundary and Phase Lines

Use VBS Plan to draw Boundary and Phase Lines in the Scenario.

For the Quick Start Scenario, create Left and Right Boundaries, and a Phase Line.

Follow these steps:

1. In the VBS Plan Tools Panel, select the Boundary Line Tool.

2. Draw the Left Boundary Line:
   a. Click a point to the south of the OPFOR Armor Unit.
   b. Double-click at a point to the south of the BLUFOR Armor Unit.
   c. In the Properties Panel for the Boundary Line, set Marker Text B to **Left**.
3. Draw the Right Boundary Line:
   a. Click a point to the north of the OPFOR Infantry Unit.
   b. Double-click at a point to the north of the of the BLUFOR Amphibious Infantry Unit.
   c. In the Properties Panel for the Boundary Line, set Marker Text A to **Right**.

4. Draw a Phase Line:
   a. In the VBS Plan Tools Panel, select the Phase Line Tool.

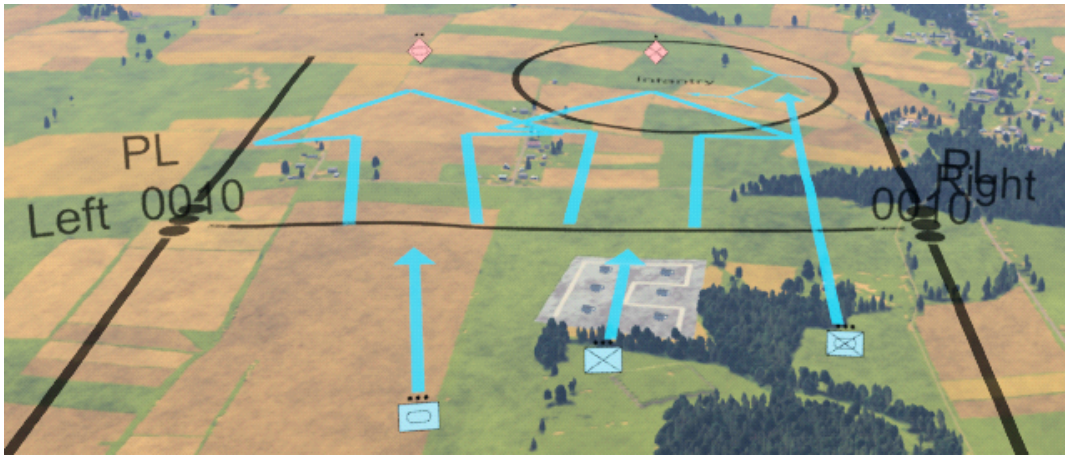
   

   b. Click a point near the center of the Left Boundary line.
   c. Double-click at a point near the center of the Right Boundary Line.
   d. In the Properties Panel, set the Time to **00:10**.

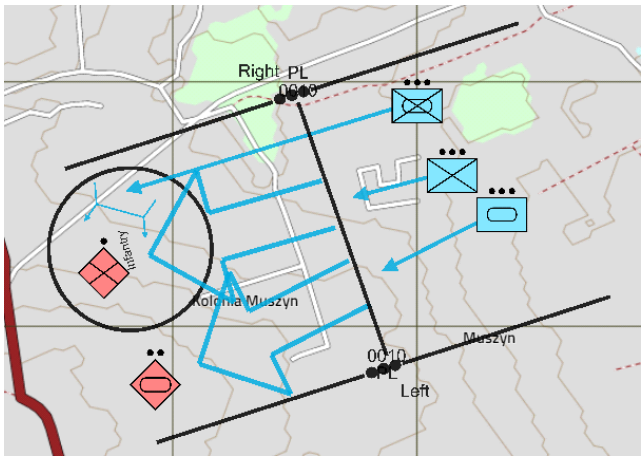
> **TIP**
> If want the Scenario to run faster, specify a shorter interval (for example, **00:05**).

VBS Plan draws the control lines in the Scenario. When the Scenario executes, Units controlled by VBS Control AI respect the Phase Line and wait there until the specified time.

In the 3D View, the Boundary Lines and Phase Line should look like this:



And in the 2D View, like this:



5. Click the **Main Menu** icon in the VBS4 Toolbar, and under **Battlespaces**, select **Save**.

VBS4 saves the Tactical Plan as part of the Battlespace.

2.3.5 Build the Mission

A Plan in VBS Plan only draws annotation using standard military symbology in the Scenario. To create an executable Scenario in VBS4 convert the Plan annotation into Mission entities.

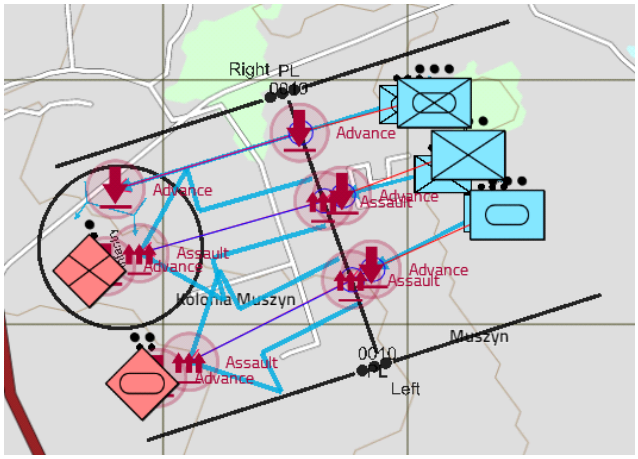
Follow these steps:

1. Select **File > Build Mission** or click **Build Mission** in the VBS Plan timeline.

> **NOTE**
> This process may take a few seconds.

VBS4 creates the Mission entities.

The Mission entities are most visible in the 2D View:



> **TIP**
> For better viewing of the Mission entities, zoom the 2D map / 3D terrain.

2. Click the **Main Menu** icon in the VBS4 Toolbar, and under **Battlespaces**, select **Save**.

VBS4 saves the Tactical Plan and Mission as part of the Battlespace.

2.4 Modify the Mission

VBS Editor enables more detailed editing of the Scenario and provides access to objects and functions that are not available in VBS Geo or VBS Plan.

VBS4 contains the vast majority of the existing functionality of VBS3, accessed through the VBS Editor.

For the purpose of the Quick Start Scenario, add an extra unit for the Administrator to use, with a Control Link tied to an Unmanned Aerial Vehicle (UAV).

Follow these steps:

1. Do one of the following:
   - From the Battlespaces List, select **Quick_Start**, highlight **Editor** in the Battlespace Functions Panel, and click **Open**.
   - From VBS Plan or VBS Geo, click **Editor** in the VBS4 Toolbar.

   VBS4 opens VBS Editor in Prepare Mode to enable entity editing.
2. Add an extra individual unit by Adding an Administrator Unit (on the next page).
3. Add Editor specific objects by Placing a Control Link (on page 40).
4. Add an Unmanned Aerial Drone by Adding UAV Observation (on page 41).
5. Create units for Trainees to choose from in Adding a Trainee Group (on page 43).

Do one of the following:

- To continue previewing the Quick Start Scenario later, expand the VBS4 Main Menu and select **Close Prepare** to return to Battlespaces mode.
- To preview the Quick Start Scenario now, see Scenario Preview (on page 44).

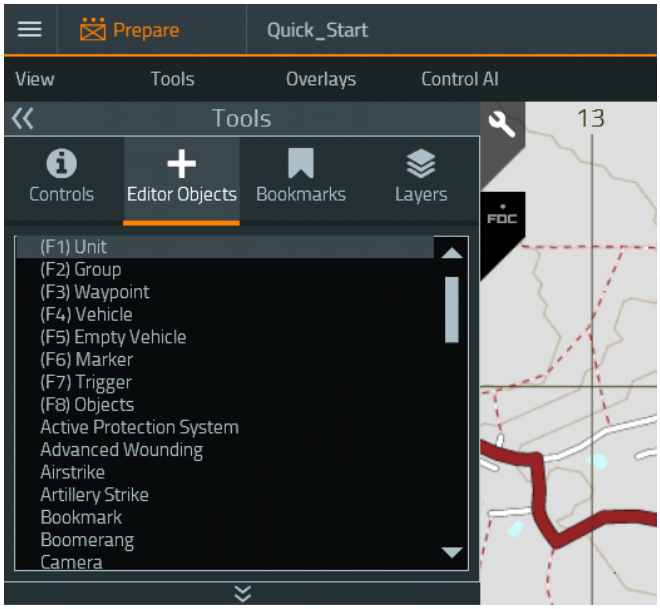
2.4.1 Adding an Administrator Unit

To control or observe a Scenario Execution, place additional playable units in the Scenario.

Follow these steps:

1. Use the Classic Camera controls to relocate to the raised area created in Using the Elevation Tool (on page 12).

2. In VBS Editor, expand the Tools Panel, click **+** to view the Editor Object List, and select **(F1) Unit**.



3. Locate the plateau created in Using the Elevation Tool (on page 12), right-click a location within the circular enclosed area, and select **New Object**.

   The Unit Object Properties Panel opens.

4. Expand **US Army ACU - UCP** and select **Contractor - M4A1 - IOTV**.

5. To the right of the **AI** drop-down, set the playability drop-down to **Player**.
6. Click **OK**.

   VBS Editor places the unit on the plateau.

   For more information about placing individual units, see Adding Units in the VBS4 Editor Manual.

7. Click the **Main Menu** icon in the VBS4 Toolbar, and under **Battlespaces**, select **Save**.

   VBS4 saves the updated Mission as part of the Battlespace.

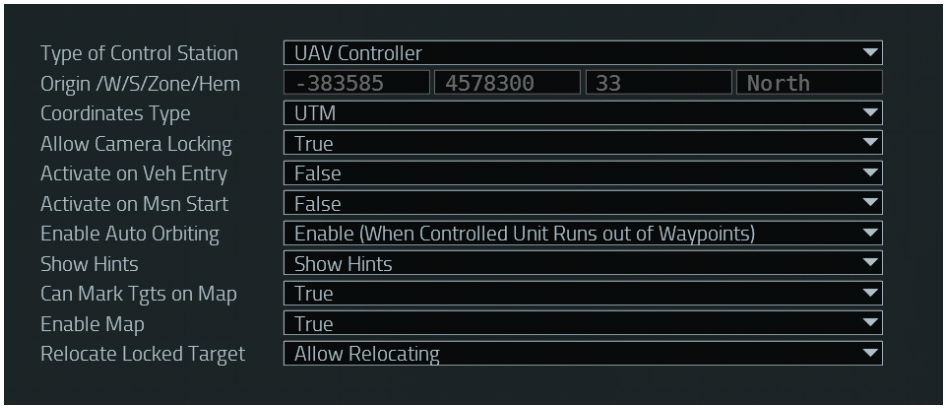
2.4.2 Placing a Control Link

For this Scenario, add a Control Link for the Administrator unit to access the UAV Camera.

Follow these steps:

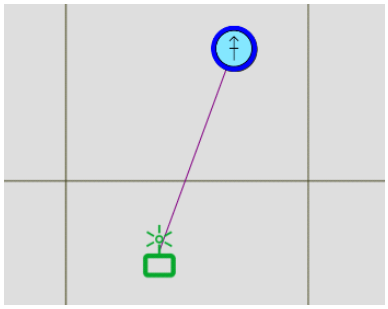
1. In the VBS Editor Tools Panel, click **+** to view the Editor Object List, and select **Control Link**.
2. Right-click a location near the Administrator unit, and select **New Object**.

   The Control Link Object Properties Panel opens.



3. Specify **UAV Controller** as the Type, and click **OK**.
4. Link the Control Link to the Administrator unit:
   a. In the Editor Menu, select **View > 2D Map View**.
   b. Right-click the Control Link icon and select **Link to Unit**.
   c. Click the Administrator unit.

   VBS Editor creates a link between the Control Link and the unit, enabling the Administrator to use the Control Link during Scenario Execution.



5. Click the **Main Menu** icon in the VBS4 Toolbar, and under **Battlespaces**, select **Save**.

   VBS4 saves the updated Mission as part of the Battlespace.

2.4.3 Adding UAV Observation

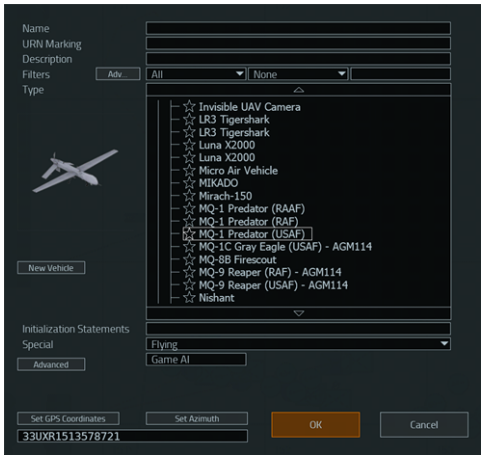
VBS4 includes Unmanned Aerial Drones for observation as well as strike missions.

For this purpose of the Quick Start Scenario, add an Unmanned Aerial Drone, with a set of Waypoints to enable observation during the Scenario.

Follow these steps:

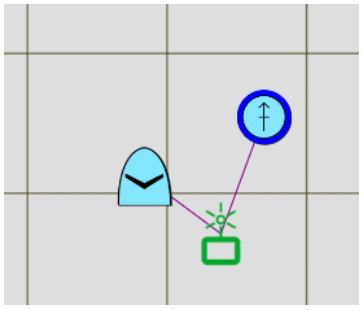
1. In the VBS Editor Tools Panel, click **+** to view the Editor Object List, and select **(F4) Vehicle**.
2. Right-click a location near the Administrator unit, and select **New Object**.

   The Vehicle Object Properties Panel opens.
3. Expand **Unmanned Vehicles** and select **MQ-1 Predator (USAF)**.



4. Expand the **Special** drop-down and select **Flying**, and click **OK**.
5. Select **Game AI** as the AI type.
6. Link the UAV to the Control Link:
   a. In the Editor Menu, select **View > 2D Map View**.
   b. Right-click the Control Link icon and select **Link to Vehicle**.
   c. Click the UAV.

   VBS Editor creates a link between the Control Link and the UAV, enabling the Administrator to use the Control Link to control the UAV during Scenario Execution.

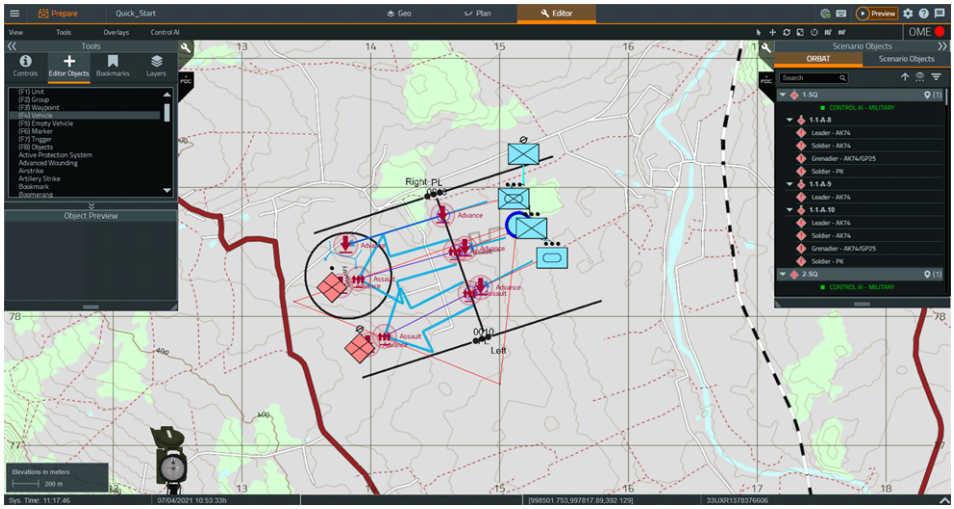


7. Create a Waypoint pattern for the UAV to use:
   a. Right-click the UAV, select **Orders > Assign New Waypoint**, and click a position to the south of the Left Boundary line, and click **OK**.
   b. Right-click the Waypoint and select **Add New Waypoint**, and click a position to the west of the OPFOR Infantry.
   c. Right-click the Waypoint and select **Add New Waypoint**, and click a position near the UAV.
   d. Right-click the final Waypoint, and select **Edit Object**.

      The Waypoint Object Properties Panel opens.
   e. Expand the **Type** drop-down, and select **CYCLE**.
   f. Click **OK**.

   VBS Editor saves the Waypoint loop.

   The Scenario Objects Tree shows the UAV waypoints, which create a triangle on the map.



   During Scenario Execution, the UAV flies around the Waypoint loop, cycling back to the first waypoint after the last.

8. Click the **Main Menu** icon in the VBS4 Toolbar, and under **Battlespaces**, select **Save**.

   VBS4 saves the updated Mission as part of the Battlespace.

2.4.4 Adding a Trainee Group

Add a group of units for Trainees to choose from, before Scenario Execution begins.

Follow these steps:

1. In VBS Editor, expand the Tools Panel, click **+** to view the Editor Object List, and select **(F2) Group**.
2. Right-click any location on the map, where you want to place the Trainee group, and select **New Object**.

   The Group Object Properties Panel opens.

3. In the **Category** drop-down, select **BLUFOR US Army ACU - OCP - IOTV**.
4. In the **Playable** drop-down, select **Playable**.
5. In the **AI** drop-down, select **Game AI**.
6. Click **OK**.

   VBS Editor places the Trainee group on the map.
7. Click the **Main Menu** icon in the VBS4 Toolbar, and under **Battlespaces**, select **Save**.

   VBS4 saves the updated Mission as part of the Battlespace.

2.5 Scenario Preview

Prepare Mode enables Mission Designers to preview Scenarios as a single player mission.

In Prepare Mode, each Tool contains a **Preview Button** in the VBS4 Toolbar.

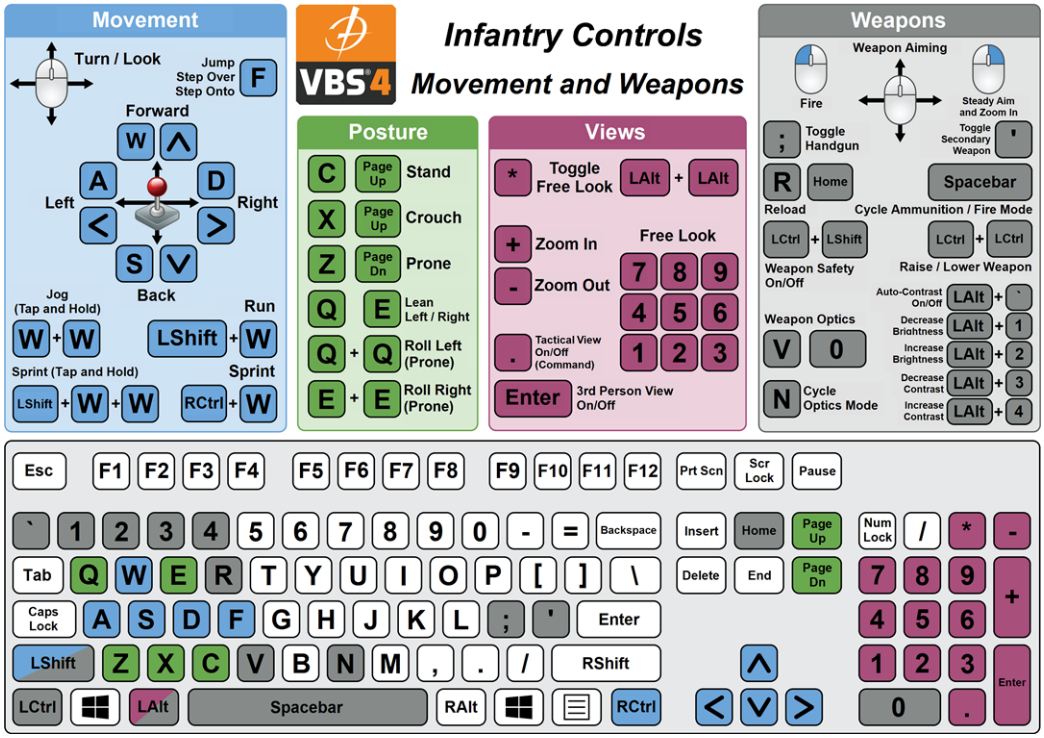
The Scenario starts as a single-player exercise with you as the playable Administrator unit.

For the purpose of the Quick Start Scenario, access the UAV Camera and watch other Units start their Advance Orders.

Follow these steps:

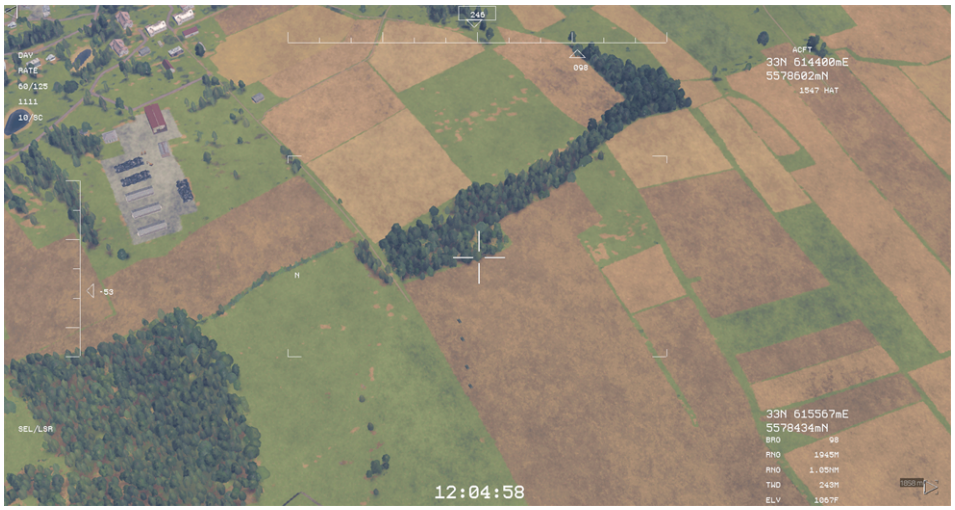
1. In any of the Prepare Mode Tools, click **Preview**.
2. VBS4 loads the Scenario and you start as the Administrator Unit.

   Use the standard VBS4 Controls to control your character.



3. Press **Quick Menu** (**Left Windows**), and select **UAV CONTROLLER** (see Quick Menu Actions in the VBS4 Trainee Manual).

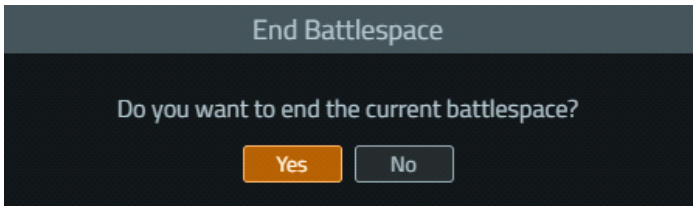
   VBS4 switches to the UAV camera view.



4. Use the mouse to move the camera and **Zoom In** (**Num +**) and **Zoom Out** (**Num -**), and observe the Scenario as the VBS4 AI performs the Orders assigned to the Units.
5. To end the Preview:
   a. Press **Pause** (**Esc**).
   b. In the VBS4 Toolbar, click the VBS4 **Main Menu** icon.

   c. Select **End Battlespace**.

      The End Battlespace dialog opens.



   d. Click **Yes**.

   VBS4 returns to Prepare Mode in VBS Editor.

Do one of the following:

- To continue executing the Quick Start Scenario later, expand the VBS4 Main Menu and select **Close Prepare** to return to Battlespaces mode.
- To execute the Quick Start Scenario now, see Execute the Scenario (on the next page).

3. Execute the Scenario

VBS4 enables Instructors and Trainees to quickly start and join the Scenario execution.

The Quick Start Scenario uses the Hosted Scenario execution method. For more information, see VBS4 Client Hosted Scenario Execution in the Introduction to VBS4 Guide.

Follow these steps:

1. As an Administrator, start the VBS4 Admin Client and connect to the VBS World Server.
   a. On the VBS4 Admin Client, start VBS Launcher:

      `\VBS_Installation\VBSLauncher.exe`

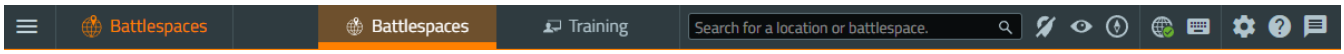
   b. In the **VBS4 > Client** tab, use the **Preset** drop-down to select the **Admin** profile.

   c. In the **VBS4 > Client** tab, in **VBS4 Online**, click **Refresh**, and select or input the IP Address of the VBS World Server.

   d. Click **Launch Modules**.

   VBS4 starts and connects to the VBS World Server, and the VBS4 User Interface opens in Battlespaces Mode.

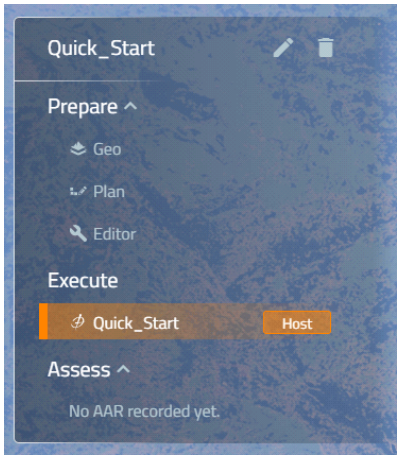
2. In the VBS4 Toolbar, make sure that the **Battlespaces** tab is selected.



> **NOTE**
> When starting the VBS4 Admin Client, the Battlespaces tab is selected by default.

3. Start the Scenario:

   From the Battlespaces List, select **Quick Start**, under **Execute** in the Battlespace Functions Panel highlight **Quick_Start**, and click **Host**.



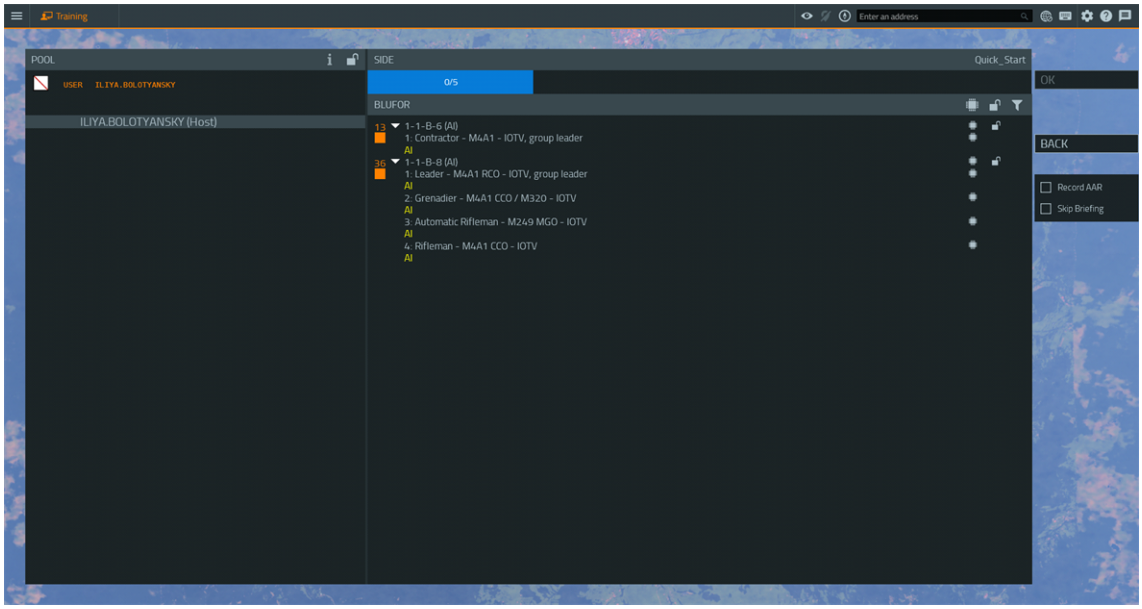
   The Network Lobby opens, waiting for the Trainees to join the Hosted Scenario.

4. For each Trainee, start VBS4 as a Trainee, connecting to the VBS World Server.
   a. On the VBS4 Trainee Client, start VBS Launcher:

      `\VBS_Installation\VBSLauncher.exe`

   b. In the **VBS4 > Client** tab, use the **Preset** drop-down to select the **Client** profile.
   c. In the **VBS4 > Client** tab, in **VBS4 Online**, click **Refresh**, and select or input the IP Address of the VBS World Server.
   d. To connect to the VBS4 Admin Client running the Hosted Scenario, input the **Server IP** using the IP address of the VBS4 Admin Client.
   e. Click **Launch Modules**.

   VBS4 starts connected to the VBS World Server. Trainees are directed to the Network Lobby.
5. In the Network Lobby, Trainees select or are assigned their roles.
   - Each user clicks AI under a character to assign themselves to that role. For the purpose of the Quick Start Scenario, select the following slot roles:
     - **Scenario Instructor:** Contractor - M4A1 - IOTV.
     - **Scenario Trainee:** Any available role, created in Adding a Trainee Group (on page 43).



6. When all the Trainees join the Hosted Scenario, in the Network Lobby of the VBS4 Admin Client, select **Record AAR** and **Skip Briefing** to automatically start the After Action Review (AAR) (see in the VBS4 AAR Manual) Recording and skip the mission briefing.

   The Scenario starts and the Instructor and Trainees are ready to perform their roles, while the AAR is recorded.

   For the Quick Start Instructor and Trainee roles, respectively, see:

   - Manage the Scenario (on the next page).
   - Play the Scenario (on page 52).

   For more information about the functions available to Instructors and Trainees, see:

   - VBS4 Instructor Overview in the VBS4 Instructor Manual.
   - VBS4 Trainee Overview in the VBS4 Trainee Manual.

7. When the Scenario is over, the Instructor stops it:

   Press **Pause** (**Esc**) to access the **Main Menu** and select **Server Management > End Battlespace**.

   Trainees exit the Scenario.

After Scenario Execution, you are ready to Assess the Scenario (on page 55).

3.1 Manage the Scenario

As the Scenario runs, the Instructor uses VBS4 in Execute Mode to play, monitor, and manage the Scenario.

The following Instructor activities are discussed:

- Using the Instructor Player Character (below) - Use the player character, assigned to the Instructors, in-game, as a Trainee.
- Instructor Monitoring and Managing (on the next page) - Use the VBS Plan and / or VBS Editor to monitor and manage the Scenario.

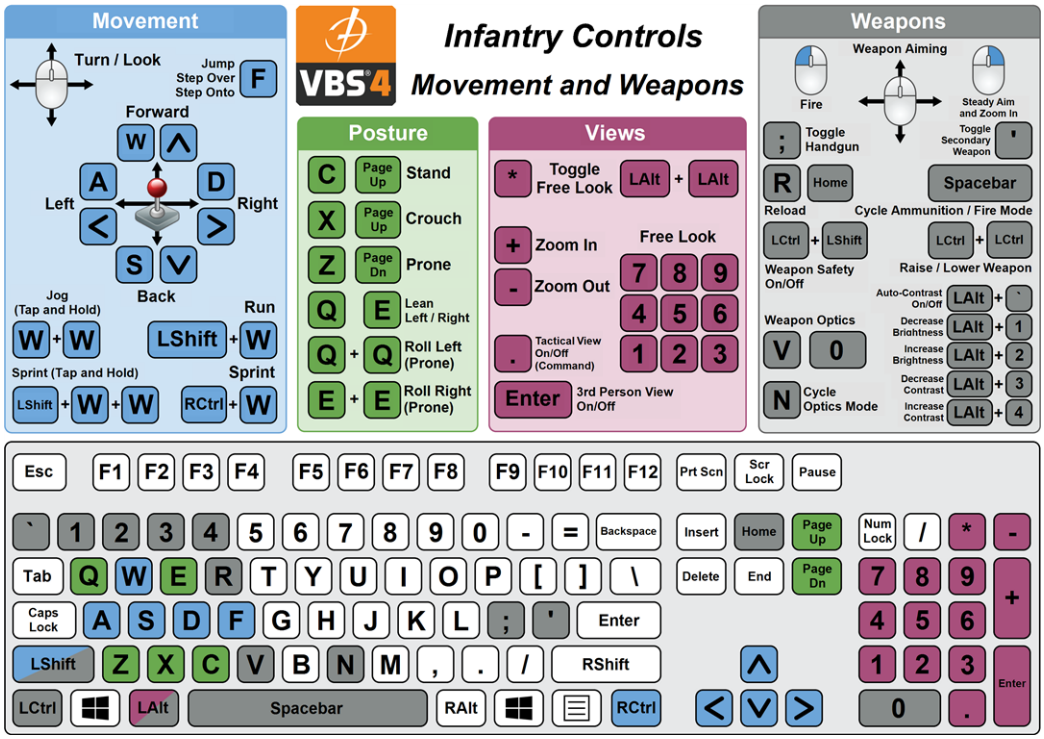
For the full scope of Instructor activities, see VBS4 Instructor Overview in the VBS4 Instructor Manual.

3.1.1 Using the Instructor Player Character

As a player character, you can use the UAV camera to monitor the movement of BLUFOR units and engaging of OPFOR units.

Follow these steps:

1. Use the standard VBS4 Controls to control your character.



2. Press **Quick Menu** (**Left Windows**) and select **UAV CONTROLLER** (see Quick Menu Actions in the VBS4 Trainee Manual).

   VBS4 switches to the UAV camera view.

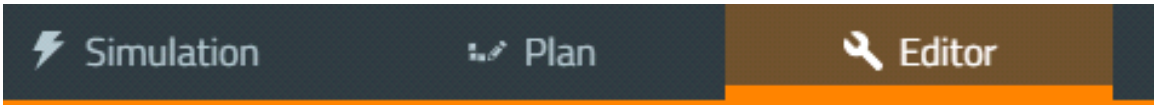
3. Use the mouse to move the camera, and **Zoom In** (**Num +**) and **Zoom Out** (**Num -**), and observe the Scenario as the VBS4 AI performs the Orders assigned to the units.

For other Trainee activities in the Scenario, see Play the Scenario (on page 52).

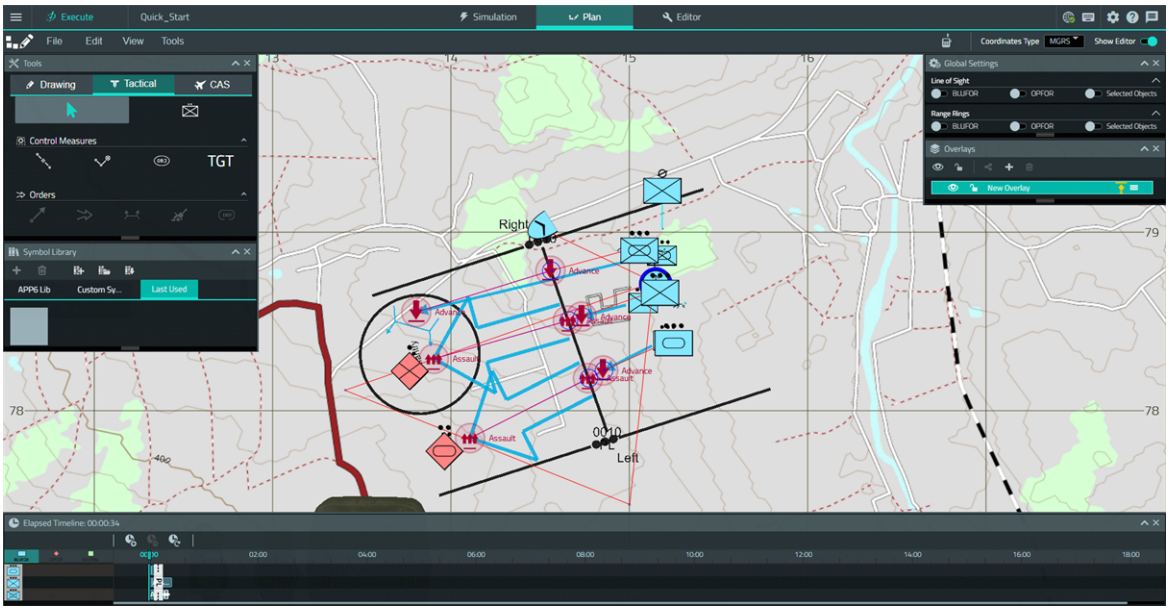
3.1.2 Instructor Monitoring and Managing

You can monitor and manage the Scenario as it runs, using VBS Plan and VBS Editor.

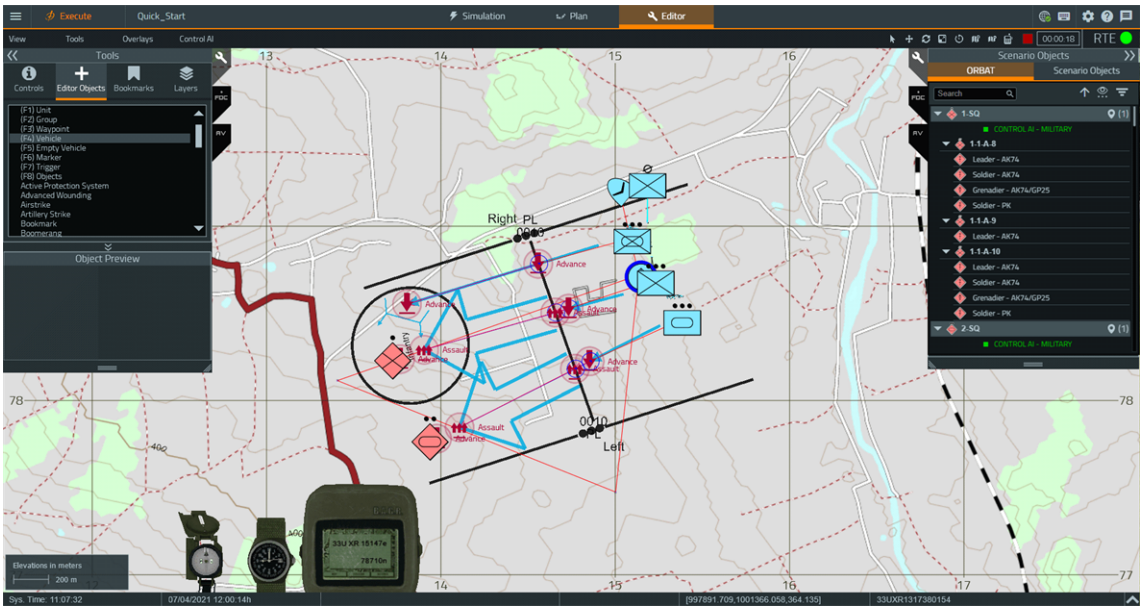
Press **Pause** (**Esc**), and in the VBS4 Toolbar, select either **Plan** or **Editor**, to access VBS Plan or VBS Editor functions.



If you select **Plan**, the VBS Plan opens in Execute Mode.



If you select **Editor**, VBS Editor opens in Execute Mode.



For more information about the available functions, see:

- VBS Plan UI Overview and Managing Overlays in the VBS Plan Manual.
- Instructor Interface in the VBS4 Instructor Manual.

To return to the simulation as a player, press **Pause** (**Esc**), and in the VBS4 Toolbar, select **Simulation**.

VBS4 switches to either the first-person or third-person view of your character.

3.2 Play the Scenario

When the Scenario starts, the Trainees take control of their characters and can undertake the training exercise.

The following Trainee activities are discussed:

- Controlling the Player Character (below) - Control your player character.
- Commanding Subordinates (on the next page) - Command your subordinates in first-person / third-person, or using the Command and Control (C2) Screen.

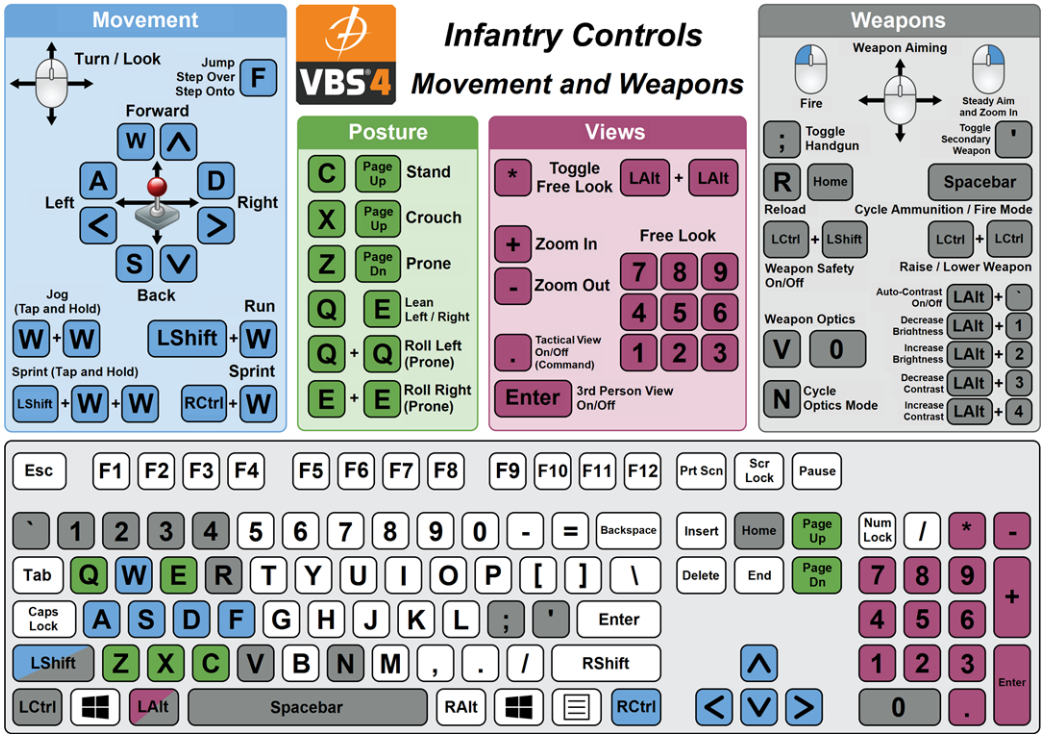
For the full scope of Trainee activities, see VBS4 Trainee Overview in the VBS4 Trainee Manual.

3.2.1 Controlling the Player Character

As a Trainee, you can control your player character (for example, to move around, fire at the enemy, and so on).

Follow these steps:

1. Use the standard VBS4 Controls to control your character.



2. Press **Quick Menu** (**Left Windows**) to access any of the available options for your character, such as switching weapons, hand / arm signaling, and so on.

   For more information, see Quick Menu Actions in the VBS4 Trainee Manual.

3.2.2 Commanding Subordinates

Command subordinates in first- / third-person, or with the Command and Control (C2) Screen.

As a group leader, you can see the Command Bar HUD on the left side of the screen:

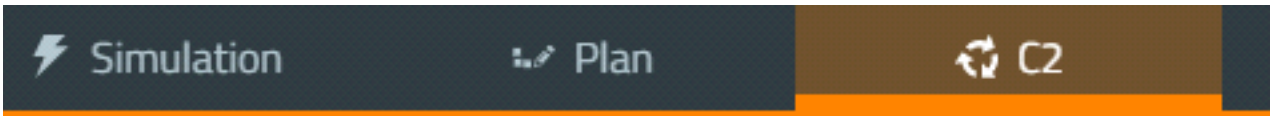
Press **Backspace** to open Command Menu.

The Command Menu opens, next to the Command Bar.

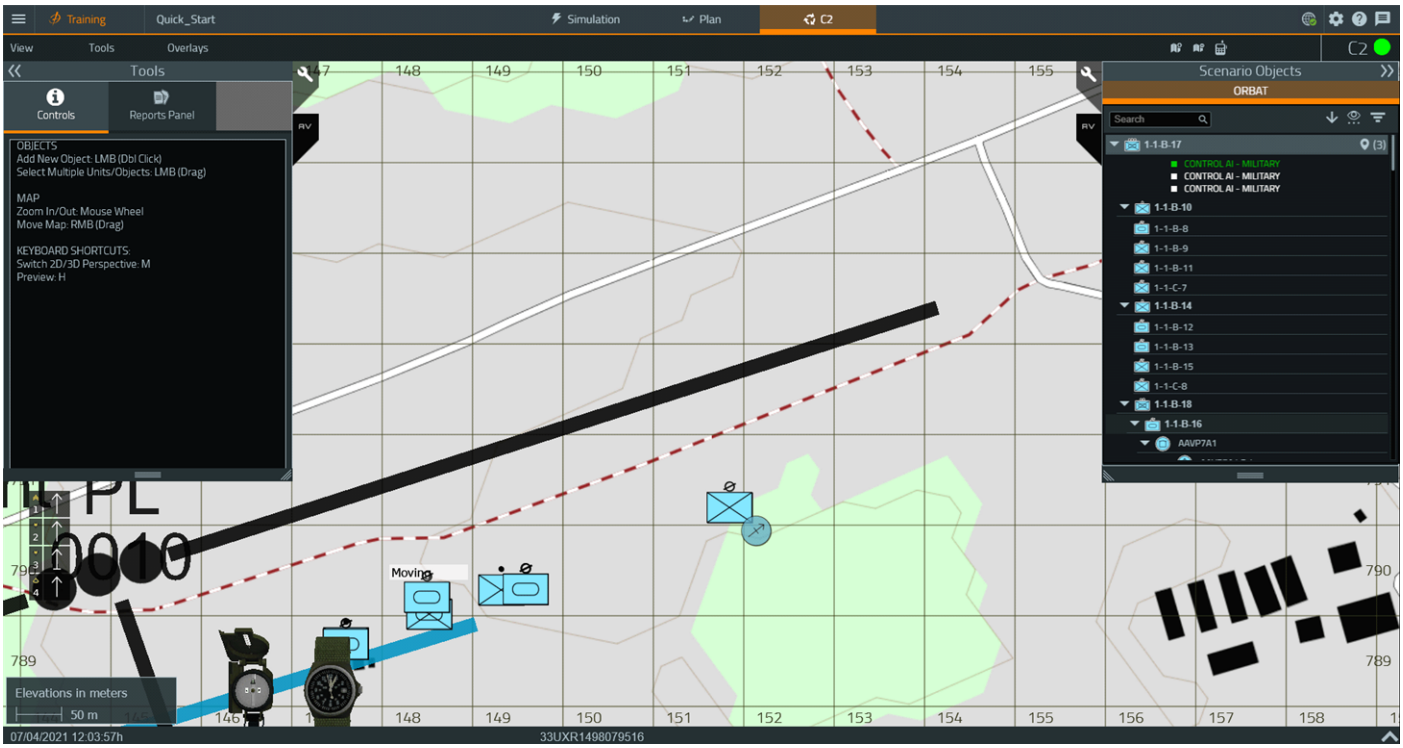
Press the corresponding number (0-9) key to navigate the Command Menu and its sub-menus, available to your character (not grayed-out), to issue commands to your subordinates.

For more information about available Command Menu functions, see Commanding Subordinates in the VBS4 Trainee Manual.

Press **Pause** (**Esc**), and in the VBS4 Toolbar, select **C2**, to open the Command and Control (C2) Screen.



The C2 Screen opens.



For more information about the available C2 functions, see Command and Control (C2) Screen in the VBS4 Trainee Manual.

4. Assess the Scenario

VBS4 includes After Action Review (AAR), to record and playback a Scenario Execution.

Follow these steps:

1. During Execute the Scenario (on page 46), the Instructor recorded the Scenario Execution.
2. As an Administrator, start the VBS4 Admin Client and connect to the VBS World Server.
   a. On the VBS4 Admin Client, start VBS Launcher:

      `\VBS_Installation\VBSLauncher.exe`

   b. In the **VBS4 > Client** tab, use the **Preset** drop-down to select the **Admin** profile.
   c. In the **VBS4 > Client** tab, in **VBS4 Online**, click **Refresh**, and select or input the IP Address of the VBS World Server.
   d. Click **Launch Modules**.

   VBS4 starts connected to the VBS World Server, and the VBS4 opens in Battlespaces Mode.
3. In the Battlespaces List, select the Quick Start Battlespace (**Quick_Start**).

   The **Assess** section in the Battlespace Functions Panel initializes a list of the AAR recordings stored on your computer and on the VBS World Server (if connected to it).
4. Highlight the AAR to playback, and click **Open**.

> **NOTE**
> Scenarios can have multiple AAR playbacks, with the latest at the top of the list.

The AAR interface opens in Assess Mode, providing the playback capabilities of AAR and the visualization capabilities of the VBS Editor and VBS Plan in Execute Mode.

For more information, see the following topics in the VBS4 AAR Manual:

- After Action Review (AAR)
- VBS Plan in AAR