
Just My Unit

3D Game Management Unit Map Visualization Software

Quick Tour

Congratulations on your purchase of **Just My Unit (JMU)** from HuntData LLC. To get the most benefit from the program, we encourage you to take time to go through this Quick Tour then review the electronic training videos on your CD.

Installation

Insert the JMU CD into your CD Rom drive. The autorun feature on the CD will launch the startup menu. Select Install and follow the installation instructions until the install is complete.

If the installation process does not run automatically, follow the steps below to manually start the installation process:

- From the Windows Desktop, press the [Start] button
- Choose Run
- Type d:\setup.exe in the box (where "d" is the letter of your CDROM drive)
- Click on [OK]



JMU uses a program from Visualization Software (www.visualizationsoftware.com) called "3DEM". The 3DEM software opens a whole new 3D map viewing world to hunters. After JMU installation, you will see the 3DEM ICON on your desktop. Click on this ICON to open the JMU maps.

2 Overview

The 3DEM software has dozens of functions that are sure to produce a smile! To get the up and running quickly, we have prepared an overview of the main software functions. We've also included instructional videos on the CD or DVD which demonstrates the steps necessary to perform these key functions.

Here are the top 3DEM functions. On the program Menu-Bar use the [Help] function to explore many other capabilities!

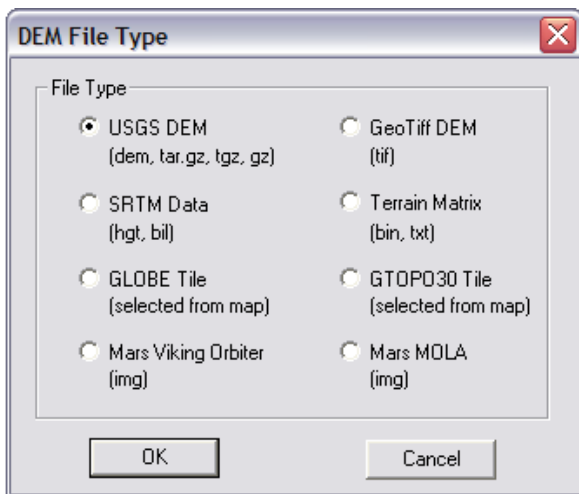
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Concepts and Terminology

The process of generating 3D maps involves terrain models called “DEMs” or Digital Elevation Models. Digital elevation models are collections of points, at measured intervals, that have an associated elevation. If a cover were placed over a truck and the height was measured every 2 inches, the resulting collection of data would be an elevation model. Put the information in a computer and it becomes a Digital Elevation Model.

Imagine if you had a collection of truck covers with different colors and diagrams. No matter what was printed on the cover, each cover would take the same shape when placed over the truck.

1. Click on the 3DEM ICON to open the program.
2. Open the [File] menu and Click on the Sub Item [Load Terrain Model]

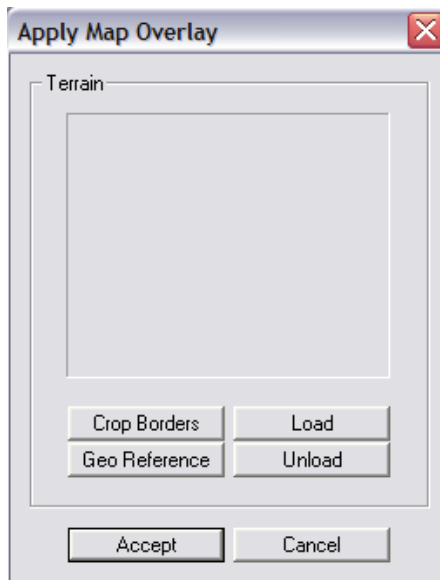


3. Click on the radio button next to "USGS DEM". All Digital Elevation Models used in JMU are USGS DEM. Find and open the directory (either on the CD or your hard drive) on your JMU CD or in the download directory. A file with the extension *.DEM will be in your directory. Highlight this file and click the "Open" button to load the .DEM file.

The 3DEM software will open the DEM and create a brown surface overlay on the model. (Other Program functions will display the DEM with varying colors based on elevation.) Choose [Color Scale] then [Modify Scale]. Read more about these functions under [Help].

4 Loading a Map Overlay (continued)

4. Click [Operation] then [F4: Apply/Remove Map Overlay]. The map overlay is the truck cover discussed in Chapter 2.



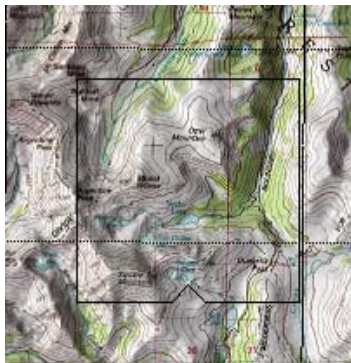
5. Click [Load] then select a GMU map from the directory on the JMU CD or your download file. The software will open a file selection Window. Choose one of the files (in the example below the unit is GMU 24).
- GMU 24 Topo.tif
 - GMU 24 Land Use.tif
 - GMU Satellite.tif
 - GMU Elk.tif
6. Choose any of the four maps then click “Open” on the dialog box to open the map. The software will display a processing message. When the message “Geo Reference Complete” appears, click the [Accept] button to close the dialog box.

How to Create a 3D Scene 5

Welcome to the most exciting feature of Just My Unit, 3D map creation. The 3D features allow you to view maps from ground level or from the peak of a mountain, here's how:

1. Open a DEM and select a map (Chapter 3 and 4)
2. Left mouse click anywhere on the map

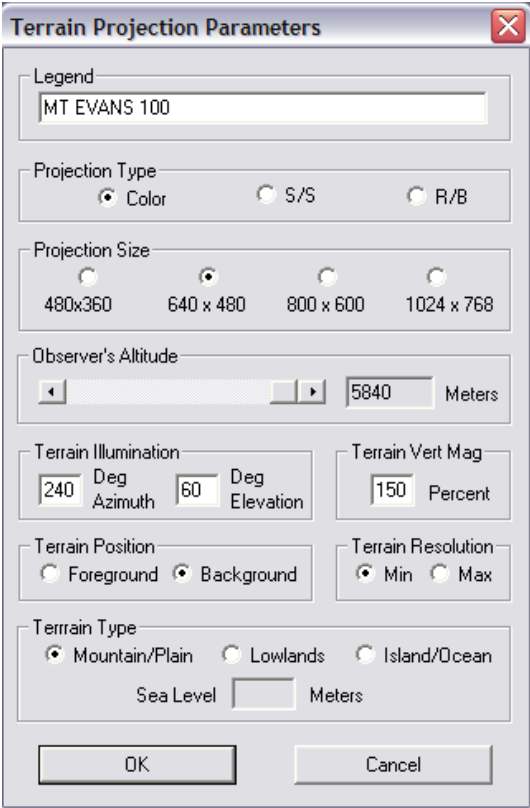
A small box will appear on the screen. This box represents the subject area for the 3D scene. The inverted triangle on the bottom edge of the square indicates in what direction you will be looking when the 3D scene is generated. The larger the box the more memory will be required for the scene generation. Select a smaller area until you know how much horsepower your computer can spare.



3. After selecting an area, click [Operation] on the menu bar [F2: 3D Scene]
4. The "Terrain Projection Parameters" box will appear next.

6 Creating a 3D Scene (continued)

Use the definitions on Page 7 to choose the correct parameters for the “Terrain Projection Parameter” Window.



The screenshot shows a dialog box titled "Terrain Projection Parameters" with a close button (X) in the top right corner. The dialog is organized into several sections:

- Legend:** A text field containing "MT EVANS 100".
- Projection Type:** Three radio buttons: "Color" (selected), "S/S", and "R/B".
- Projection Size:** Four radio buttons: "480x360", "640 x 480" (selected), "800 x 600", and "1024 x 768".
- Observer's Altitude:** A slider and a text field showing "5840 Meters".
- Terrain Illumination:** Two sub-sections: "240 Deg Azimuth" and "60 Deg Elevation".
- Terrain Vert Mag:** A text field showing "150 Percent".
- Terrain Position:** Two radio buttons: "Foreground" and "Background" (selected).
- Terrain Resolution:** Two radio buttons: "Min" (selected) and "Max".
- Terrain Type:** Three radio buttons: "Mountain/Plain" (selected), "Lowlands", and "Island/Ocean". Below this is a "Sea Level" text field followed by "Meters".

At the bottom of the dialog are two buttons: "OK" and "Cancel".

If you encounter errors during 3D scene creation, refer to Select [Help] from the Main Menu, then select [Help Topics], and “Common Problems”. The section contains tips on memory and display management from the 3DEM programmers.

Creating a 3D Scene, Projection Parameters 7

Legend: This is a free-form text field. The text will be displayed at the top of output images and movies.

Projection Type: Choose **Color**

Projection Size: This selection directly affects the amount of memory needed to generate the 3D environment. Start with the smaller sizes until you are confident of both the area and your computer's ability to generate the desired image.

Observer's Altitude: Imagine you are in a helicopter. This setting affects your altitude. Consider leaving this setting at its highest point. You will originate high above the 3D model and can always swoop down. If you create the scene at low altitude you may not recognize your surroundings.

Terrain Illumination: These setting affect the "shading" of the 3D environment. Accept the defaults at first and play with the settings as you become more familiar with the software.

Terrain Vert Mag: Terrain Vertical Magnification relates to how the Digital Elevation Model is projected. We recommend settings between 150 and 200 to create more realistic mountain inclines.

Terrain Position: This selection affects navigation after generation of the new 3D world. The tool used to navigate through the 3D world will differ depending on this selection. We recommend the "Background" setting.

Terrain Resolution: Use Min until you are confident your computer can process the high resolution output.

Terrain Type: Mountain/Plain. Do you need an explanation?

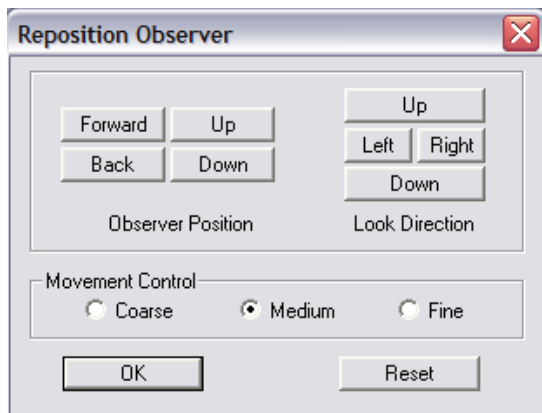
Click [OK] after setting the parameters

8 Navigating in a 3D Scene

Now the fun begins. You've created a 3D scene. If you used the satellite image you are viewing the topography just as you would in a airplane or helicopter, only without the noise.

The size of the box used in "How to Create a 3D Scene" to select the 3D area now serves as a framework to view your 3D world. You are not limited to the area chosen in the box. You can now navigate across the entire map, using the box as a "magnifying glass" to move across the unit. Here's how to navigate through a 3D scene:

1. In the "3D Scene" Window, select [Operation] on the Menu Bar, then [F6: Change Position]. The following screen will appear.



The navigation tool above is dependent on whether "Foreground" or "Background" is chosen in the "Projection Parameters" Window described on page 6. The "Terrain Position" setting, described on page 7, directly determines what tool is available for navigation. The "Background" setting generates the above tool.

Adding Waypoints 9

1. Choose [GPS] from the Menu Bar, then [Enter GPS Points by Mouse]
2. Left mouse click along the chosen route, when complete click [OK] in the GPS Point Entry box in the lower left corner.
3. Save the points by clicking [GPS] then [Transfer GPS Points] then [Screen to File].

Additional GPS functions are covered in the Help menu area. If you encounter problems with the GPS interface please post your question on www.visualizationsoftware.com, the 3DEM software producers.

Creating a 3D Fly thru

Create a flyby using a Waypoint Route (above). After creating a route, perform the following:

1. Choose [Operation] on the Menu Bar then [View Flyby]
2. Use the following settings:

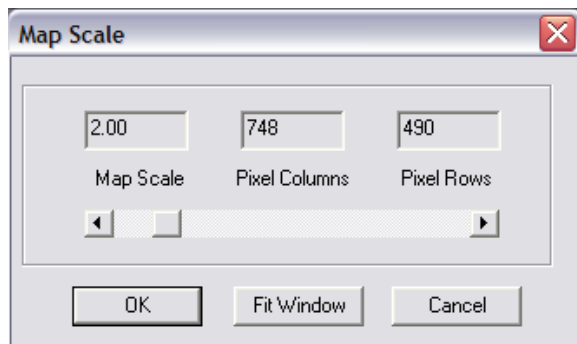
Flyby Type = GPS Points
Frames = 100 **
Projection Type = Color
Visible GPS Points = On
Projection Size = 640 by 480 **
Flyby Speed = 25 M/Frame
Flyby Altitude = 1,000
Terrain Vert Mag = 150
Terrain Type = Mountain/Plain

** Minimize these settings during preliminary flyby generations. These settings directly affect system performance and memory consumption.

10 Zoom in and Out

To zoom into a map, perform the following:

1. Choose [Operation] from the Menu Bar, then [F6: Resize Overhead View]
2. Move the sliding bar to the right to zoom in then click [OK]



Change Map Overlays

Changing maps is equivalent to changing overlays. The base Digital Elevation Model (truck) stays the same. A different overlay (truck cover) must be selected. To change the overlay, perform the following.

1. Select [Operation] from the Menu Bar, then [F4: Apply/Remove Map Overlay]
2. Click on the [Unload] button, this will free memory for the new map
3. Click the [Load] button and select the desired map
4. The software will process the overlay and display the message "GeoReference Complete"
5. Click the [Accept] button to view the new map overlay.

Printing a Map 11

The map printing function prints the full area displayed. To print only a portion of a map, reduce the size of the displayed map to match the size of your printer. To reduce the map size:

1. Choose [Operation] from the Menu Bar then [F8: Select Smaller Area]
2. Use the cursor to select the print area
3. Hit [Enter] after an area is selected
4. Size the image (See “Zoom in and Out” on p.)
5. Choose [File] the [Print Map]

To return to the larger map reload the DEM model ([File] then [Load Terrain Model]) and the map overlay ([Operation] then [F4: Apply/Remove Map Overlay]).

Saving a Map

When saving a map, the image clarity and pixels saved are determined first by your screen view settings ([Operation] then [F6: Resize Overhead View]) and the type of file you choose for saving. Windows bitmaps are the largest files. The .jpg files offer the most compression and therefore the smallest file. Saving a file as a GeoTiff (.tif) will allow you to import the image into other sophisticated mapping programs.

1. Click [File] on the Menu Bar, then [Map Image]
2. Select the file type
3. Select the directory and name and [Save]

If you do not want to save the coordinate grid, choose [Geo Coordinates] from the Menu Bar then [Coordinate Grid Off].

Map Descriptions

GMU XX Topo.tif: This is a base USGS Topographical, common to most mapping software packages.

GMU XX Elk.tif: This file is a base USGS Topographical map with Summer, Winter, and Spring elk concentrations. See our website for a concentration legend.

12 Map Descriptions (continued)

GMU XX Satellite: This is a (8 meter resolution) satellite image of your hunting unit. This map can be very useful in identifying clear cut areas and trails not shown on official maps.

GMU XX Land Use.tif: This BLM map identifies the public and private land holdings. See our website for a Land Status Legend.

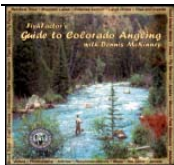
Always purchase the most recent BLM Land Status map before hunting in a particular area. These maps are not to be used for survey or other official navigation. Please consult local jurisdiction maps as ownership may change without notice.

Other HuntData LLC Products



HuntData LLC produces 3' by 4' paper elk concentration maps for every unit West of 125. The 1:100,000 topographical maps have overlays of the winter and summer concentration areas, resident herd and migration overlays. View samples on our website at www.huntdata.com.

FishFactor's Guide to Colorado Angling



What do you do between hunting seasons? You fish! The FishFactor CD has over 120 videos and 500 photos from 350 locations across the state, complete with maps. View mountain lakes, streams, warm water fisheries with

recommendations from professional fisherman and photographer Dennis McKinney. View samples and order at www.huntdata.com.



Colorado Division of Wildlife Game Management Unit

Map Legend

Topographic Map Symbols

Primary highway, hard surface	
Secondary highway, hard surface	
Light duty, hard, or aggregate surface	
Graded and drained, natural surface	
4WD, rough bladed or two-tracked surface	
Trail (foot, pack, bicycle, or as labeled)	
Road with public access	
Route marker: Interstate; U.S.; State	
Route marker: BLM; County	
Railroad: standard gauge; narrow gauge	
Bridge; overpass; underpass	
Tunnel: road; railroad	
Airport; landing field; landing strip	
National boundary	
State boundary	
County boundary	
National or State reservation boundary	
Land grant boundary	
U.S. Public lands survey: range, township; section	
Range, township; section line: protracted	
Power transmission line; pipeline	
Dam; dam with lock	
Cemetery; building	
Windmill; water well; spring	
Mine shaft; adit or cave; mine, quarry; gravel pit	
Campground; picnic area; U.S. location monument	
Ruins; elevation	
Distorted surface: strip mine, lava; sand	
Contours: index; intermediate	
Bathymetric contours: index; intermediate	
Stream, lake; perennial; intermittent	
Rapids, large and small; falls, large and small	
Area to be submerged; marsh, swamp	
Land subject to controlled inundation	

Land Status

National Wildlife Refuge & Wilderness Areas	
National Parks and Monuments (Admin by USNPS)	
Private Lands	
State Lands	
Public Lands (Administered By Bureau of Land Management)	
Indian Lands	
National Forest	
National Grasslands	
Military or other Federal Lands	

RECREATION SITES, TRAILS AND AREAS LEGEND

1							
2							
3							
4							
5							
6							
7							

RECREATIONAL SYMBOL LEGEND

Bicycle Trail		Parking	
Boat Ramp		Picnic Area	
Campground		Restrooms	
Fishing		Scenic Area	
Hiking		Trailhead	
Horse Trail		White Water Rafting	
BLM Back Country Byway			

Overlay Legend



GMU Boundaries as of 2005. Please consult Official Colorado Division of Wildlife Publications as Boundaries may change without notice.

Base Map Information from the BLM

The Base Map is Edited and Published by the BLM.
 Base map prepared by the U.S. Geological Survey
 Compiled from USGS 1:24 000-scale topographic maps dated 1961-1982. Partially revised from aerial photographs taken 1980 and other source data.
 Revised information not field checked
 Map edited 1983.
 Projection and 10 000-meter grid, zone 13
 Universal Transverse Mercator
 25 000-foot grid ticks based on Wyoming coordinate system, east central zone. 1927 North American datum
 To place on the predicted North American Datum 1983 move the projection lines 7 meters north and 52 meters east
 NATIONAL GEODETIC VERTICAL DATUM OF 1929

This is not an official BLM Map.

BLM STATE-SPECIFIC SYMBOLS

Due to diverse BLM State Office requirements, unique features have been selected for portrayal in each state. Where a map has coverage in two or more states, the map will portray the optional features selected by the respective State Offices.

Route marker:

Bureau of Land Management	
Forest Service	
County	

CONVERSION TABLE

Meters	Feet
1	3.2808
2	6.5617
3	9.8425
4	13.1234
5	16.4042
6	19.6850
7	22.9659
8	26.2467
9	29.5276
10	32.8084

To convert meters to feet multiply by 3.2808
 To convert feet to meters multiply by 0.3048

NOTE TO MAP USERS

The surface and minerals management status overprints are published as general planning and management tools. Some of the lands, surface and mineral rights, may have been shown as patented lands due to the lack of information available to BLM with respect to the nature of acquisition. Tracts less than 40 acres are usually omitted because of the map scale. The official land records in the respective offices of the Bureau of Land Management or other responsible Federal agencies should be checked for up-to-date status on any specific tract of land. Inadequacies in the BLM maps should be reported to the respective Bureau of Land Management offices from which the maps were obtained.

PUBLIC ACCESS

Roads crossing public lands may be travelled by the public unless closed by signing or notice of the land management agency. Public lands intervened by private lands may not have public access. Permission is required from the private landowner to cross private land, unless access is provided by a Federal, State, or County road, or a BLM road with legal access.

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Summer Range - Vertical Red Lines

Most Summer Ranges are removed from the JMU Maps if the Summer Range covers the majority of the unit.



Summer Concentration - Diagonal Red Lines



Winter Range - Vertical Blue Lines

Most Winter Ranges are removed from the JMU Maps if the Range covers the majority of the Unit.



Winter Concentration - Diagonal Blue Lines



Spring Concentration - (Production Area)

Yellow Lines



Resident Herd - Turquoise Lines

Most Units do not have a Resident Herd



Migration Corridor - Blue Hatch Mark