Ethics Minefields

Last update: v1.2

What is this script?

ETHICS is a full solution script for ARMA 3 that provides wide management over minefield creation for single-player and multiplayer missions.

Demo on youtube: soon

What exactly are ETHICS features? What can it do?

- Drag and drop a marker on Eden to create a full and unique minefield;
- Ethics control (ON/OFF) to avoid planting mines through civilian zones;
- Topography control (ON/OFF) to avoid rock clusters, and mountains;
- NEW! Also, it works with naval mines for minefields in water;
- Set (or not) for each minefield which faction is its owner;
- Set for each minefield a doctrine: Anti-personnel, Anti-material, or hybrid.

Complete list of script features:

https://github.com/aldolammel/Arma-3-Ethics-Minefields-Script#readme

Can it be used on Hosted and Dedicated servers?

Yes, the script was built for both server types.

Is it compatible with ACE, RHS, or CUP?

Yes! You can use ETHICS with any mod.

Does ETHICS support missions with BIS Respawn system?

Not tested yet.

How to just run the script for a first look?

1. Go to: https://steamcommunity.com/sharedfiles/filedetails/?id=2926204522
2. Subscribe and wait for Steam to download it;
3. Open Arma 3, go to Multiplayer > Server browser > Host server > click Host Server button;
4. Select "Altis" map and, after that, select "Ethics Minefields";
5. Play.

Important: if you want to apply this script in your own missions, check this out.

How to install the script in my own mission? ★★★

1. Go to: https://github.com/aldolammel/Arma-3-Ethics-Minefields-Script

2. Download the zip and open it;

3. In zip, find the folder "ETHICSMinefields" and copy it to your mission folder root: DRIVE:\Users\yourName\Documents\Arma 3\yourProfile\missions\yourMission\

4. In the mission folder root, if you don't have a "description.ext" file, create one and there add the code down below:

```
class cfgFunctions
{
        // ETHICS MINEFIELDS:
        #include "ETHICSMinefields\THY_ETHICS_functions.hpp"
};
```

5. Now, let's create your first minefield!

How to create a minefield?

In the ETHICS script, you're able to create land minefields and naval minefields.

Make sure your script has "true" what you want to apply in your mission:

```
fn_ETHICS_management.sqf ✕
1    //·ETHICS·MINEFIELDS·v1.2
2    //·File:·your_mission\ETHICSMinefields\fn_ETHICS_mar
3    //·by·thy·(@aldolammel)
4
5    //·Runs·only·in·server:
6    if·(!isServer)·exitWith·{};
7
8
9    //·PARAMETERS·OF·EDITOR'S·OPTIONS:
10   ETHICS_debug·=·true;·····················//·true·=·sho
11   ETHICS_visibleOnMap·=·true;·············//·true·=·The
12     ETHICS_styleColor·=·"ColorRed";···//·color·of·m
13     ETHICS_styleBrush·=·"FDiagonal";··//·texture·of
14     ETHICS_styleAlpha·=·1;············//·0.5·=·Mine
15   ETHICS_minesIntensity·=·"MID";·········//·Proportiona
16   ETHICS_landMinesDoctrines·=·true;·····//·true·=·Land
17     ETHICS_landmineTypeAP·=·"APERSMine";··//·Defaul
18     ETHICS_landmineTypeAM·=·"ATMine";·····//·Defaul
19   ETHICS_navalMinesDoctrines·=·false;·············//
20     ETHICS_navalmineTypeAM·=·"UnderwaterMineAB";··//
```

Already on Eden Editor, follow this:

1. Press F6 and select the "Area Markers";
2. Select, for example, an ellipse and, pressing Shift, click over the map and drag until the desired size;
3. Go to your new area-marker attributes, clicking twice over it;
4. In "Variable Name", type one of these logics down below:

Variable Name possibilities:	Description:
mf_ap_1	Minefield with Anti-Personnel doctrine;
mf_am_1	Minefield with Anti-Material doctrine;
mf_ap_blu_1	Minefield known only to Blufor;
mf_am_ind_1	Minefield known only to Independent;

|	
mf_hy_opf_1	Hybrid minefield (AP+AM) known only to Opfor;
mf_nam_1	NEW! Naval minefield with Anti-Material doctrine;
mf_nam_opf_1	NEW! Naval minefield known only to Opfor;

5. If you want to add more minefields, just copy and paste the area marker on Eden and it will increase the variable name's number automatically through each new marker.

6. Now just run your mission to test it.

Important: for more customization, in your mission's folder, access this file:
\ETHICSMinefields\fn_ETHICS_management.sqf

Which ammunition doctrines are available?

"Ammunition doctrine" means the main feature (goal) of a type of mine device. In this script, you are able to customize each ammunition used by each doctrine, however, the script expects the standard mines or at least ammunition with similar features/goals to work properly. That on the table, here is an example of a land minefield loaded with AM ammunition:
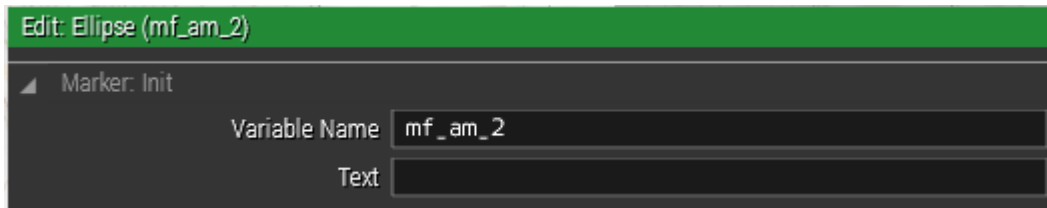
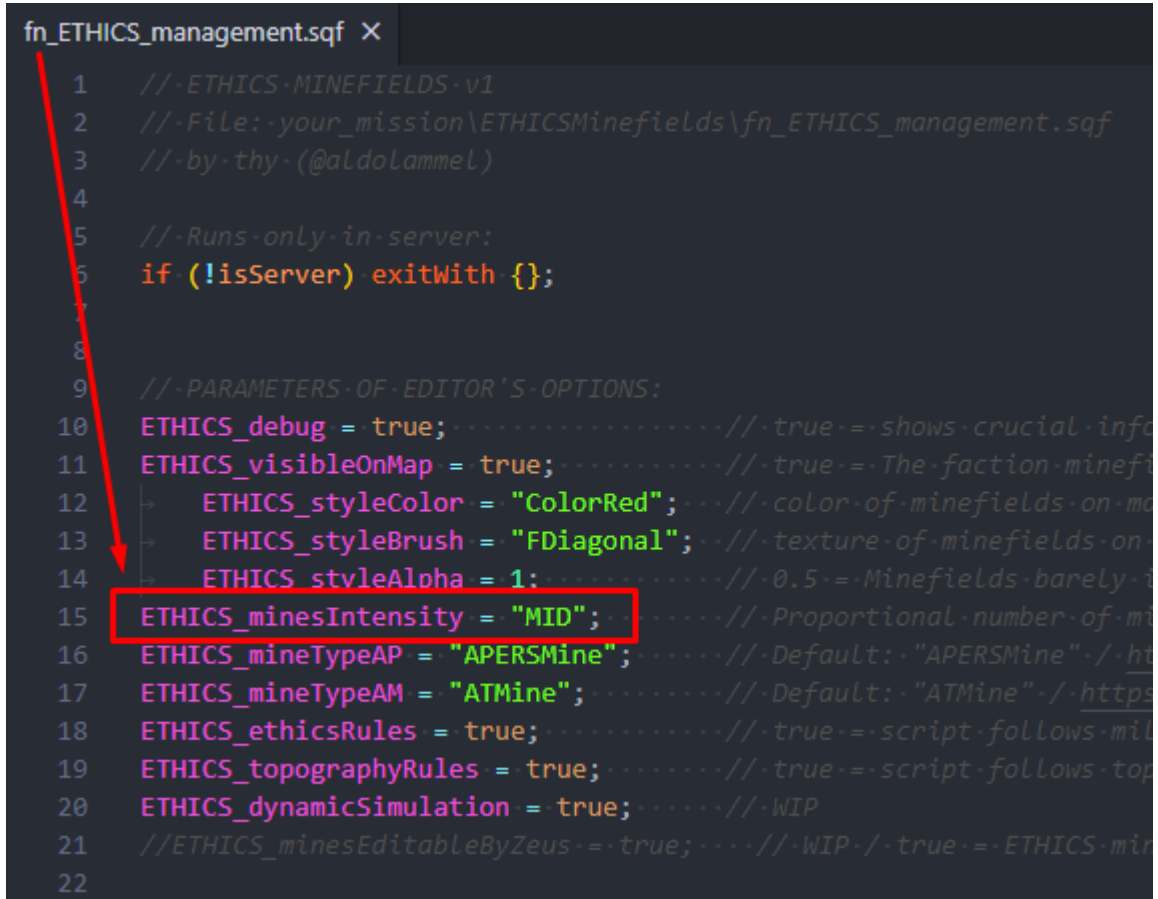Here are all ammunition doctrines available:

Doctrine tag	Description:
AP	Expected a land minefield with Anti-personnel mines;
AM	Expected a land minefield with Anti-material mines;
HY	A land minefield with AP + AM (AP in greater amount);
NAM	NEW! A naval minefield with Anti-material mines;

Critical: don't expect error handling from the script if you set naval ammunition in a land doctrine. In this case, you're up to you.

How to increase or decrease the number of mines in each minefield?

The amount of mines in a minefield is automatically calculated, based on its size and the intensity of mines that the mission editor sets. You might change the minefield intensity through 4 preset levels: LOW, MID, HIGH, and EXTREME.
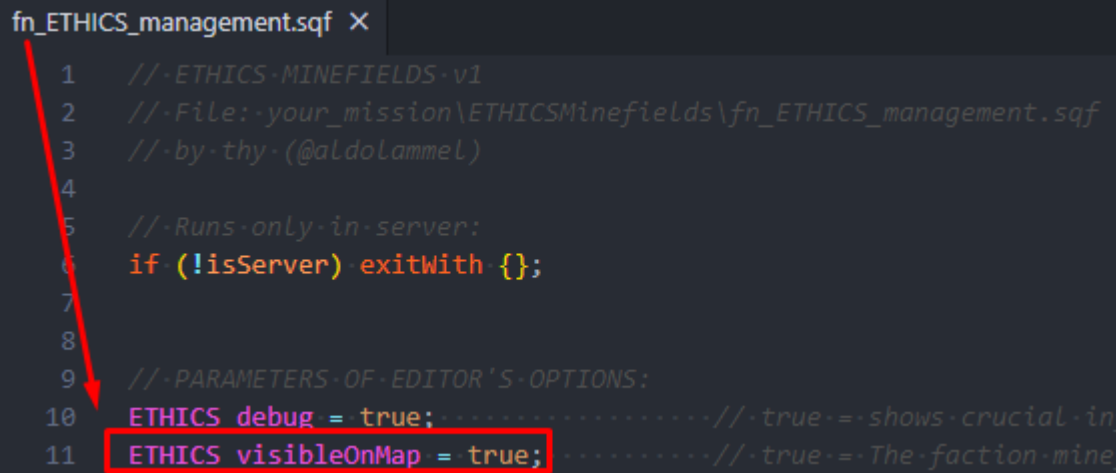This setting will impact all minefields in your mission.

```
fn_ETHICS_management.sqf  ×

 1    // ETHICS MINEFIELDS v1
 2    // File: your_mission\ETHICSMinefields\fn_ETHICS_management.sqf
 3    // by thy (@aldolammel)
 4
 5    // Runs only in server:
 6    if (!isServer) exitWith {};
 7
 8
 9    // PARAMETERS OF EDITOR'S OPTIONS:
10    ETHICS_debug = true;                    // true = shows crucial info
11    ETHICS_visibleOnMap = true;             // true = The faction minefi
12        ETHICS_styleColor = "ColorRed";     // color of minefields on ma
13        ETHICS_styleBrush = "FDiagonal";    // texture of minefields on
14        ETHICS_styleAlpha = 1;              // 0.5 = Minefields barely i
15    ETHICS_minesIntensity = "MID";          // Proportional number of mi
16    ETHICS_mineTypeAP = "APERSMine";        // Default: "APERSMine" / ht
17    ETHICS_mineTypeAM = "ATMine";           // Default: "ATMine" / https
18    ETHICS_ethicsRules = true;              // true = script follows mil
19    ETHICS_topographyRules = true;          // true = script follows top
20    ETHICS_dynamicSimulation = true;        // WIP
21    //ETHICS_minesEditableByZeus = true;    // WIP / true = ETHICS min
22
```

But how to increase the number of mines only at specific minefields and not for all of them?
You can create more minefields literally over another one.

# How to create a minefield that a faction (including its AI) can avoid?

In Arma 3, if your side/faction knows about a minefield you got some benefits. At first, your AI units have the opportunity to avoid each mine spot in that minefield. Second, in the ETHICS script, if the mission editor allows the known minefields to be visible, you will see all minefields built by your side on your map if you got one.
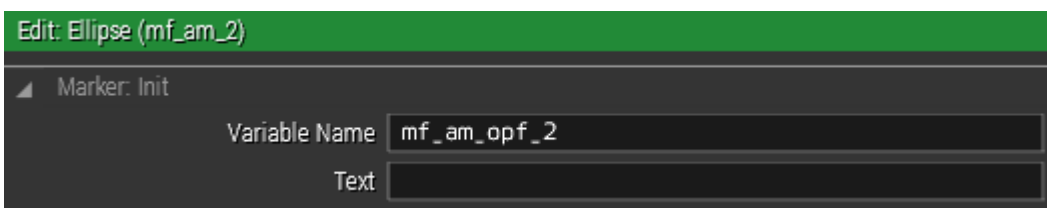

On Eden Editor:

An example of a minefield from an **unknown** side:
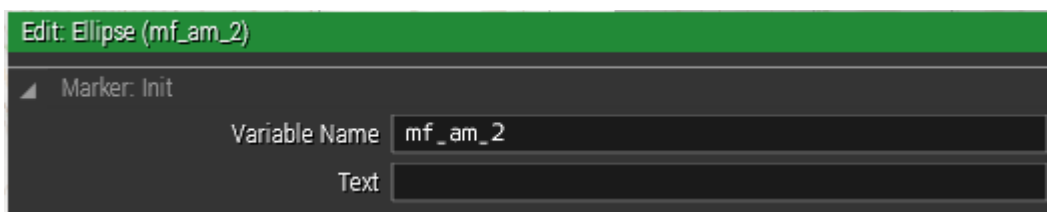
And an example of the same minefield, but now assigned to **opfor** side:
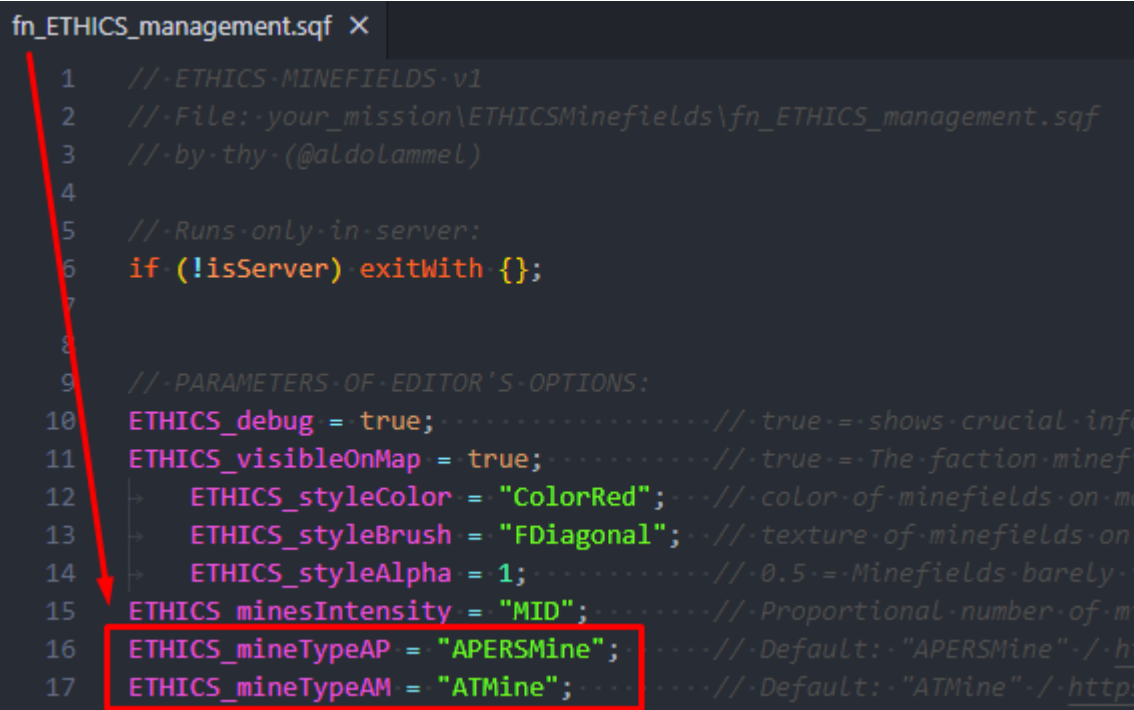

Debug tip: when Debugging, all minefields assigned to your faction will have the minefields marked in red on the map while all others, from other factions or unknown, will be in yellow.

How to customize the doctrine ammunition from a minefield?

Today, the ETHICS script works with two different types of mine: an anti-personnel type; an anti-material type. The mission editor can easily <u>change the ammunition</u> of both types, using Arma 3 vanilla options (not many) and options from mods like RHS and CUP, for example.
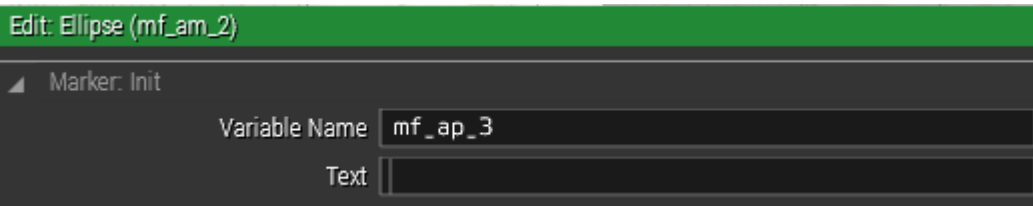
Critical: be wise because if you set an anti-tank mine type on AP type, it would be catastrophic for the script where its logic would brake.

```
fn_ETHICS_management.sqf ×
 1    // ETHICS MINEFIELDS v1
 2    // File: your_mission\ETHICSMinefields\fn_ETHICS_management.sqf
 3    // by thy (@aldolammel)
 4
 5    // Runs only in server:
 6    if (!isServer) exitWith {};
 7
 8
 9    // PARAMETERS OF EDITOR'S OPTIONS:
10    ETHICS_debug = true;              // true = shows crucial inf
11    ETHICS_visibleOnMap = true;       // true = The faction minef
12        ETHICS_styleColor = "ColorRed";   // color of minefields on m
13        ETHICS_styleBrush = "FDiagonal";  // texture of minefields on
14        ETHICS_styleAlpha = 1;            // 0.5 = Minefields barely
15    ETHICS_minesIntensity = "MID";    // Proportional number of m
16    ETHICS_mineTypeAP = "APERSMine";  // Default: "APERSMine" / h
17    ETHICS_mineTypeAM = "ATMine";     // Default: "ATMine" / http
```

On Eden Editor:

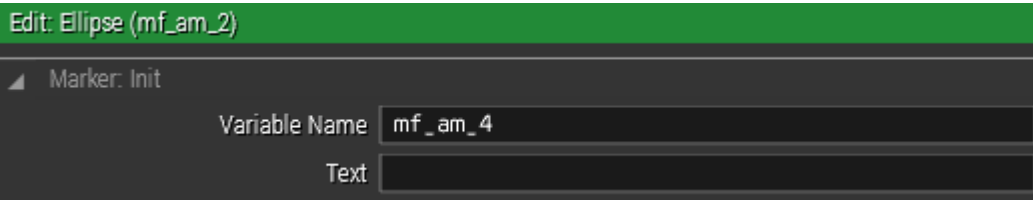An example of a minefield loaded with Anti-Personnel (AP) mines:

Edit: Ellipse (mf_am_2)

⊿ Marker: Init

Variable Name	mf_ap_3
Text	

And another one with Anti-Material (AM) mines:
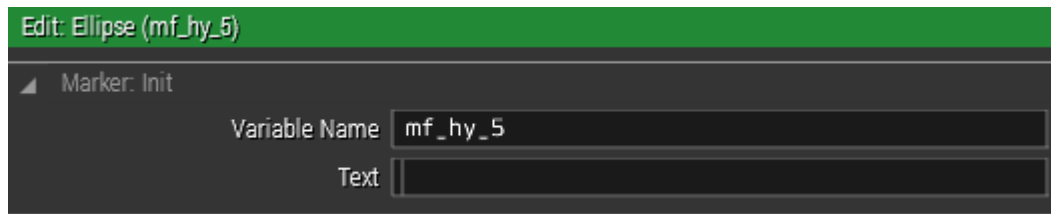
Edit: Ellipse (mf_am_2)

⊿ Marker: Init

Variable Name	mf_am_4
Text	

The mission editor also is able to set a hybrid doctrine (HY) to the minefield:

How to see each mine in all minefields?

It depends on the server settings. Even if you're playing as a single-player mission, you are your own server ("Hosted server" type). That said, Arma 3 has a couple of features that allow a server to show its players all early revealed mines on the mission. In my dedicated server, I do not use those settings to reveal known mines on the map, although only when I am building some mission with minefields it's crucial (for debugging purposes and checking the CPU performance) to know how many mines are loaded.

On the game main menu:
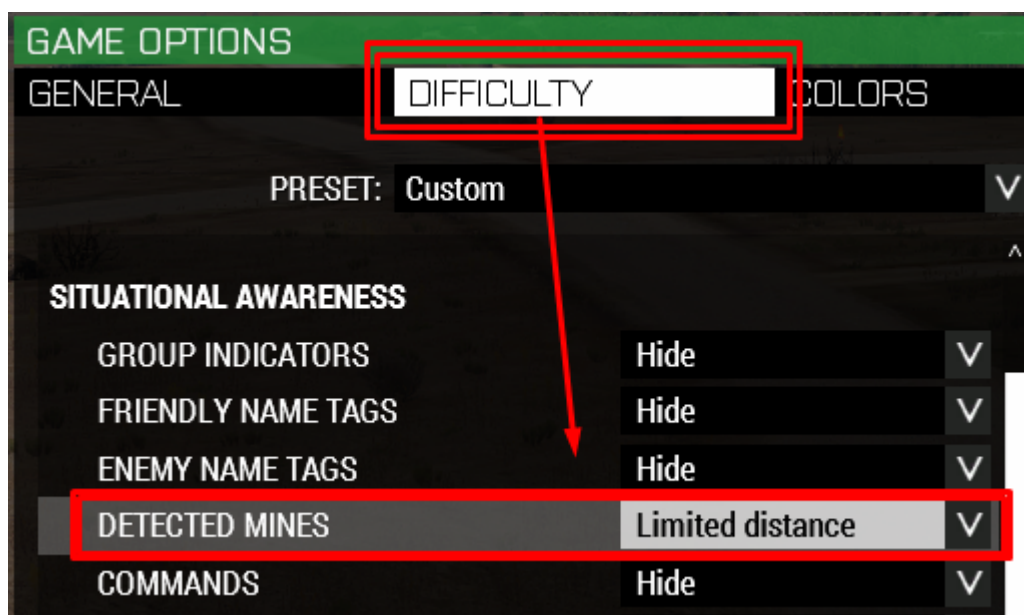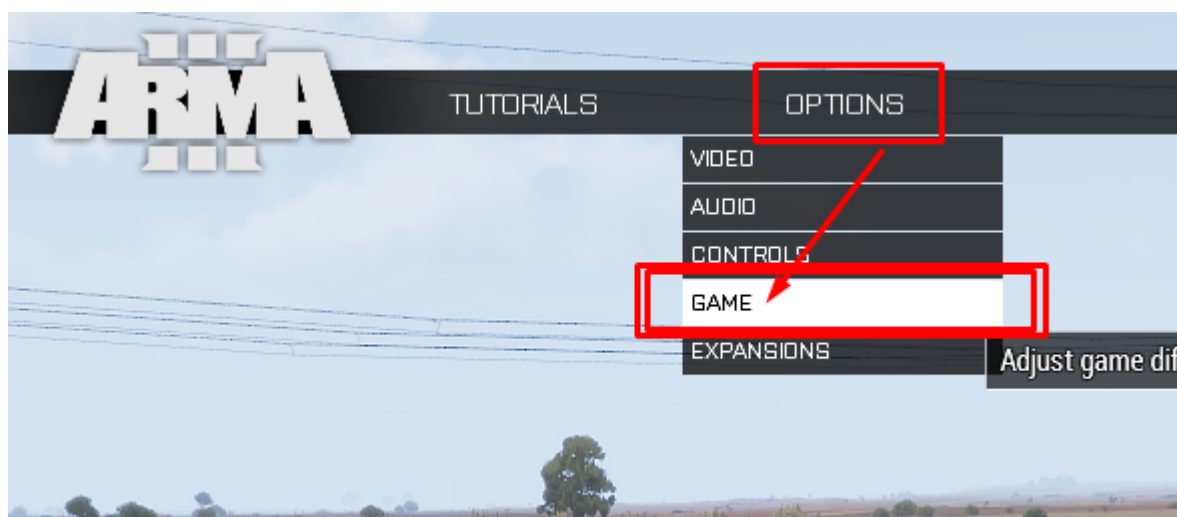
Debug tip: even when debugging I don't use the feature above. For me, it's super annoying to have many HUD icons on the screen, but the feature below is great for debugging purposes.

How to add new ammunition doctrines?

[Easily you might change the ammunition from an existing doctrine](), but adding a new doctrine is not possible with the current ETHICS script scope.

How to contribute to the ETHICS script?

Discussion on Bohemia Forums

https://forums.bohemia.net/forums/topic/241257-release-ethics-minefields/

Changelog on GitHub

https://github.com/aldolammel/Arma-3-Ethics-Minefields-Script#readme

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