

# bDetect variable configuration guide

05/07/2012 - (\*) Default values as of *bDetect v0.66 BETA*

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- **bdetect\_enable** - *Boolean, (\*) Default = true*  
This is the main toggle to enable / disable bDetect.  
Variable can be switched at runtime.

NOTE: By setting to *false* the framework is paused. In in this case it still assigns its own event handlers to any spawned units, but then it just fires its "killed" event handlers, to do garbage collection. Any other bDetect functionality is freezed if set to false.

- **bdetect\_callback** - *String, (\*) Default = "bdetect\_fnc\_callback"*  
This is the name for your own custom callback function.  
The custom callback function should be *declared and defined by you*:  
Check its default / prototypical form by looking into *bdetect.sqf*, **bdetect\_fnc\_callback()** function.

NOTE: the callback function named as **bdetect\_callback** is being executed any time a single unit detects a close bullet, unless bDetect is disabled. Keep this function simple and compact, being executed on a per-frame basis.

- **bdetect\_callback\_mode** - *String, (\*) Default = "spawn"*  
This defines how **bdetect\_callback** should be executed by bDetect, whether synchronously ( via *call* ) or asynchronously ( via *spawn* ). In the latter case function is executed within a own thread.  
valid values are "spawn" or "call".
- **bdetect\_debug\_enable** - *Boolean, (\*) Default = "false"*  
This is the main toggle for debug messages.  
Messages are logged into .rpt file.
- **bdetect\_debug\_chat** - *Boolean, (\*) Default = "false"*  
This allows for showing debug messages also in *globalchat*, in real time.
- **bdetect\_debug\_levels** - *Array, (\*) Default = [0,1,2,3,4,5,6,7,8,9]*  
bDetect internally defines 10 reserved levels for debugging purpose.  
These can be basically thought as types or groups. This variable allows for logging all messages or a subset bound to desired levels.

As of bDetect v0.66 BETA these are the reserved levels:

- 0 = Miscellaneous / Startup messages;
- 1 = FPS related messages;
- 2 = *bdetect\_fired\_bullets* related messages;
- 3 = Event handlers related messages;
- 4 = Frame related messages;
- 5 = Unit blacklisting messages;
- 6, 7, 8 = currently unused / placeholders;
- 9 = Unit detection related messages;

NOTE: use debug only in mission as simple as possible.  
Logging all levels may be massive.

- **bdetect\_fps\_min** - *Number, (\*) Default = 20*  
This allows for setting a minimum desired FPS setting.  
This is used only if **bdetect\_fps\_adaptation** is enabled.

- **bdetect\_fps\_adaptation** - Boolean, (\*) Default = true  
This allows for bDetect overhead reduction at the cost of frequency of checking and quality of detection. In case minimum FPS fall under **bdetect\_fps\_min**, bDetect progressively reduces frequency of bullets detection. It gradually restores its original frequency once FPS raise again over **bdetect\_fps\_min**.
- **bdetect\_fps\_calc\_each\_x\_frames** - Number, (\*) Default = 16  
If **bdetect\_fps\_adaptation** is enabled checking of FPS is done only each **bdetect\_fps\_calc\_each\_x\_frames**, to save resources.
- **bdetect\_eh\_assign\_cycle\_wait** - Seconds, (\*) Default = 10  
This is used to find / handle units spawned at runtime.  
The check for newly spawned units is done each **bdetect\_eh\_assign\_cycle\_wait** seconds.
- **bdetect\_bullet\_min\_delay** - Seconds, (\*) Default = 0.1  
This is the minimum delay between two shots fired by a same unit for the last bullet to be handled and detected. No need to set it under 0.1.
- **bdetect\_bullet\_max\_delay** - Seconds, (\*) Default = 1.5  
Complimentary variable of **bdetect\_bullet\_min\_delay**, self-explanatory,
- **bdetect\_bullet\_initial\_min\_speed** - Meters/Second, (\*) Default = 360  
This is the minimum muzzle speed for a bullet to be handled and detected.  
  
NOTE: By setting it to 360 you exclude from detection any subsonic ammo.
- **bdetect\_bullet\_max\_proximity** - Meters, (\*) Default = 10  
This in the maximum distance between a bullet and an *infantry unit on foot* for detection to be triggered. Not suggested to set it under 10.
- **bdetect\_bullet\_min\_distance** - Meters, (\*) Default = 25  
This is the minimum distance from muzzle for a bullet to be detected.
- **bdetect\_bullet\_max\_distance** - Meters, (\*) Default = 400  
This is the maximum distance from muzzle for a bullet to be detected.
- **bdetect\_bullet\_max\_lifespan** - Seconds, (\*) Default = 0.5  
This is the maximum "lifespan" for a bullet to be detected.
- **bdetect\_bullet\_max\_height** - Meters, (\*) Default = 6  
Any bullets going above **bdetect\_bullet\_max\_height** on ground and diverging from it are ignored
- **bdetect\_bullet\_skip\_mags** – Array, (\*) Default = []  
This is used to filter some very specific bullet types out of detection.  
Example: ["30rnd\_9x19\_MP5", "30rnd\_9x19\_MP5SD", "15Rnd\_9x19\_M9"]