Trackmania Unlimiter user manual

Created by Kemot0055 and Remix
Current unlimiter version: 1.0 beta 3
Manual version: 1.1 eng
Translation by Remix, Suchor and Kemot0055

Link for main topic on tmx: https://united.tm-exchange.com/main.aspx?action=threadshow&id=4724293&postid=4724294

Table of contents

1. How to install TM Unlimiter?

Installation of TM Unlimiter is very simple. All you have to do is copy all files from *.zip file to your game folder, "TmUnitedForever" or "TmNationsForever" (depended from version) and everything should work correct.

Files that you need to run TM Unlimiter:
      - TMUnlimiter.exe - Launching program to start game with Unlimiter
      - TMUnlimiter.ini - Configuration file
      - TMUnlimiterProbe.dll - File that modify game code
      - Folder *Icons* which include new terrain icons in editor

This package has also *TMUnlimiterOld.exe file*, which is taken from previous TM Unlimiter versions and added in case of some problems with new *TMUnlimiter.exe* file even if doesn't work with tips written below, and works on previous versions.

Example of game folder with correctly pasted files from TMUnlimiter package (Files that you need are marked) :

To run game with Unlimiter you just have to open *TMUnlimiter.exe*.

NOTE: In case of any problems with *TMUnlimiter.exe*, especially with missing MSVCP140.dll file, you should download *Visual C++ Redistributable 2015*. You can download this from official Microsoft page here: https://www.microsoft.com/en-us/download/details.aspx?id=48145
If it doesn't help, you can try also download *Visual C++ Redistributable 2010*. In other cases, please write a report of problem on tmx forum.

NOTE: It's recommended to disable advanced stadium shadows. This thing can make huge improvement of fps and avoid rarely crashes on stadium maps with a lot of blocks. You don't have to disable all shadows, you only have to turn off *Lightmap quality* and *Lightmap compute* in Compatibility settings. Here you can see how to disable them :
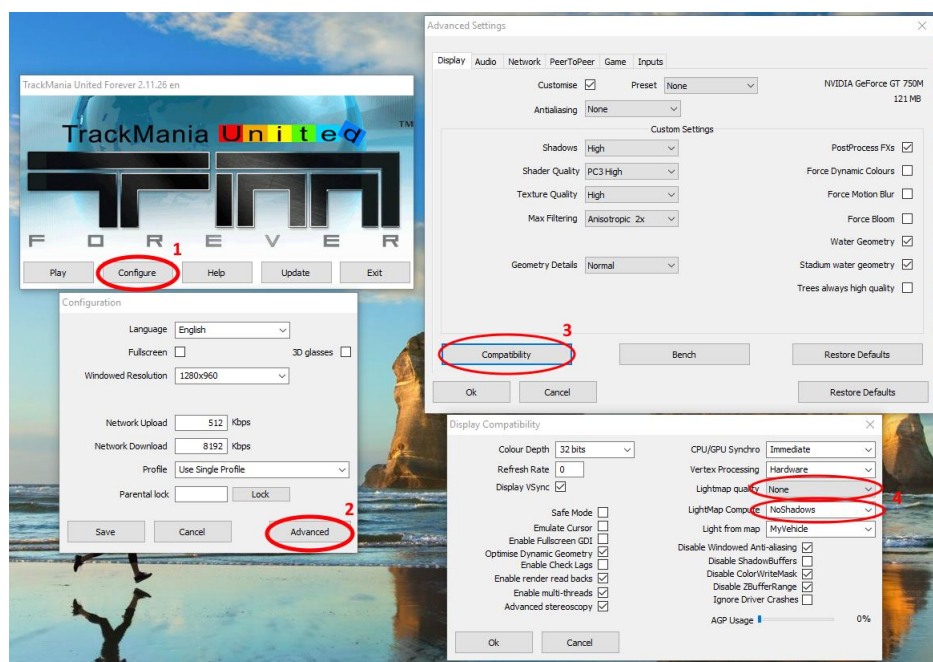
2. TMUnlimiter.ini file description

TMUnlimiter.ini file is used to set basic preferences in program, game editor and additional options for creating new maps. Set 1 to enable setting, 0 to disable.

1. LaunchSettings - TMUnlimiter starting options
   ● InitialMessage - Showing initial message when starts TMUnlimiter program.

2. GameSettings
   ● DefaultDrawDistance - Property which allows to change draw distance value. Default value are 0, minimum value is 8. Draw distance value can be modified in game by pressing LAlt + plus or LAlt + minus shortcut. You can use it to increase your fps dynamically.

3. EditorSettings - Map editor settings
   ● NewEditorInterface - Use custom minimalistic GUI in track editor
   ● CreateBlockClips - Creating clips on blocks placing
   ● UpdateBlocksAfterRemove - Blocks updating around deleted block

   NOTE: Above two options contain only default editor settings. Both can be changed via editor shortcuts in any moment.

4. NewTrackSettings - Options **for new tracks** created in game editor for each environment, allowing to change build base size, vehicles and decoration mixes. For change those settings (except RemoveStadiumBackground) you have to write complete name/value.

   NOTE: Nations players can edit only TrackSize and RemoveStadiumBackground

   ● RemoveStadiumBackground - Allow to remove stadium background and leave only skybox. Works only with Unlimiter 0.7+
   ● TrackSize - Allow to change map size separately for each environment
   ● TrackVehicle - Allow to change vehicle separately for each environment
   ● TrackBackground - Allow to change decoration separately for each environment, with different size and from any different environment

   Possible decoration sizes:

Environment	Decoration sizes
Alpine	45x45, 32x32, 30x30, 20x60, 10x150
Bay	45x45, 32x32
Coast	45x45, 32x32
Island	45x45, 32x32
Rally	45x45, 32x32, 30x30, 20x60, 10x150
Speed	45x45, 32x32, 30x30, 20x60, 10x150
Stadium	32x32

NOTE: If you'll change decoration size, you also have to change map size if you want to make them in the same size. Another important thing is, to save custom map size you have to put at least one any block. Map saved without blocks will always have size, what's saved in .ini file.

NOTE 2: Vehicle and Decoration mixes works on Vanilla version of TMUF (without unlimiter). But if you'll use custom decoration size, you also have to set map size the same as decoration (with default height) to work with Vanilla TMUF. Other configurations works only with unlimiter.

3. Track editor - Keyboard shortcuts

Current block variation: Automatic selection

Ok
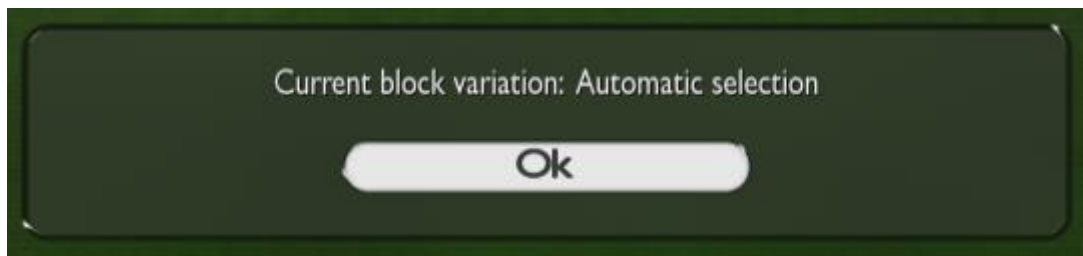
Track editor has now additional keyboard shortcuts, which allows to dynamically changes few options about block placing. Some of those default setting can be set in .ini file, as it was written in previous chapter. Those options can be useful, so it's worth to look at them. After any correctly executed shortcut, you'll see message box with informations about function (example above).

Track editor shortcuts on keyboard:

Trackmania Unlimiter 0.7 beta 3 shortcuts layout.

Legend: ■ - Default Trackmania shortcuts ■ - Unlimiter shortcuts, works with pressed Left Shift ■ - Standalone Unlimiter shortcuts
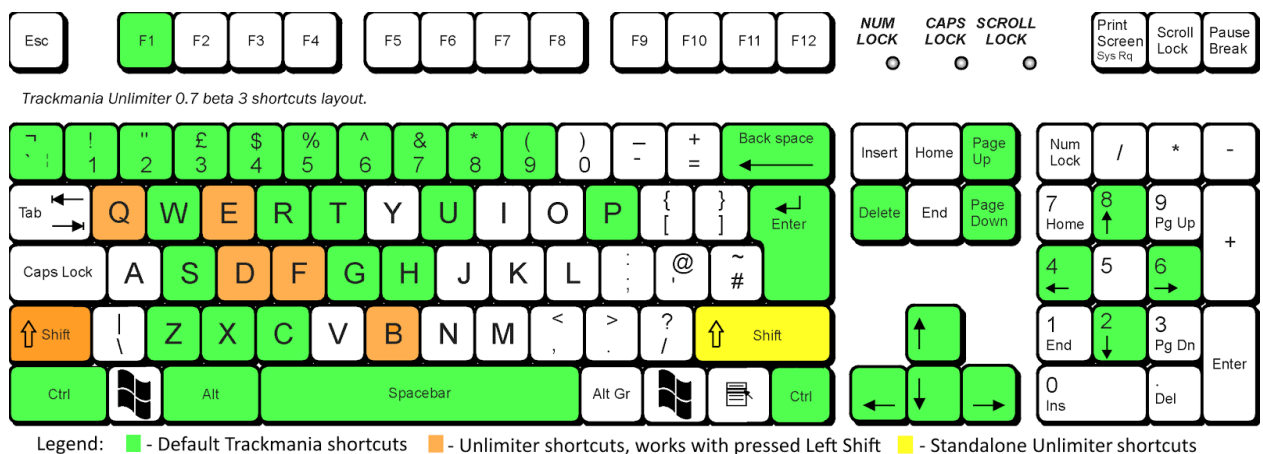
List of shortcuts currently used in Unlimiter:

Shortcut	Function
LShift + Q	Placing clips (connectors) after placing block on the map.
LShift + E	Refreshing variations of blocks around deleted block.
LShift + D	Function which can set one of blocks variation: • Automatic mode (default) • Only air variation • Only ground variation If selected block doesn't have selected variation type, variation is automatically selected to *Automatic mode*.
LShift + F	Function which allow to put blocks upside down. This function doesn't work with certain blocks.
LShift + B	*Snap to ground* Function which allow to place blocks on ground level, very helpful with hills on stadium environment.
RShift	Function which shows all information about currently selected block Shown block information: 1. Block ID on the map 2. Block name 3. Block position (*x, y, z*) 4. Block rotation 5. Current Variation of the block

4. MediaTracker
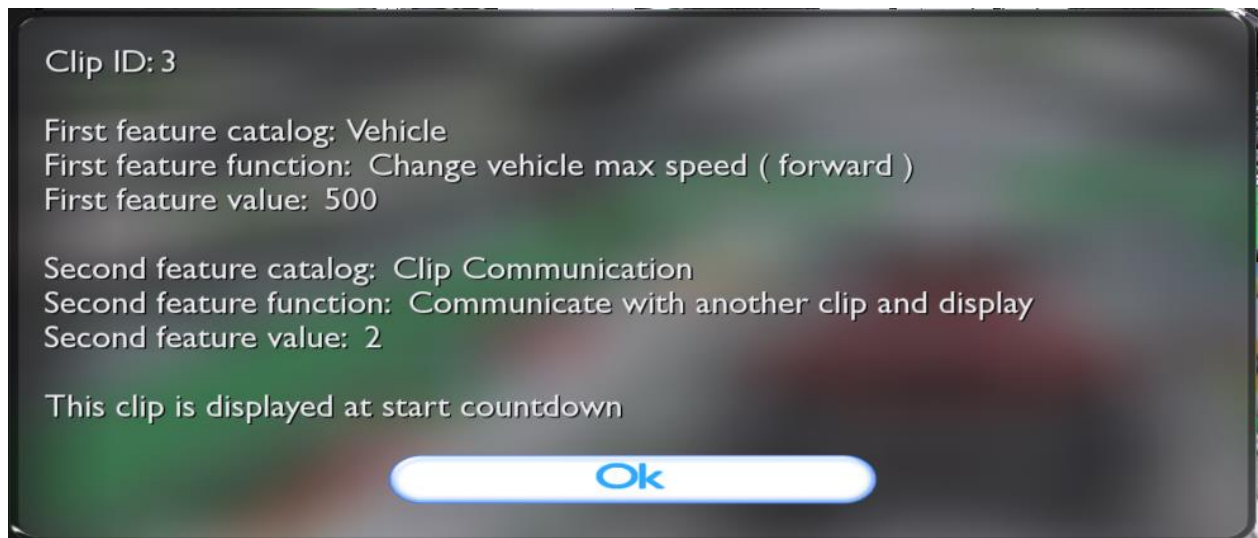
Before explanation of shortcuts you have to know that every clip in MediaTracker has two slots for the function like change vehicle acceleration, v-max etc.

Functions are divided into:
A.   Catalog - Collections of functions whose changes specific aspects in the game.
B.   Function - Specific function, that change specific value in the game.
C.   Value

List of catalogs in Unlimiter:

ID	Catalog	Description
0	None	-
1	Vehicle	Catalog with functions which changes vehicle parameters
2	Reset	Catalog with functions which resets vehicle parameters to default.
3	Clip communication	Catalog with functions whose allow to communicate and display other MediaTracker clips.

Function in specific catalogs located in Unlimiter:

Catalog	Functions	ID
Vehicle	Change vehicle gravity (new method)	1
	Change vehicle gravity (old method)	2
	Change vehicle gravity (simple inversion)	3
	Change vehicle maximum speed (forward)	4
	Change vehicle maximum speed (backward)	5
	Change yellow booster multiplier	6
	Change red booster multiplier	7
	Change vehicle acceleration	8
Reset	Reset all vehicle values	1
	Reset vehicle gravity	2
	Reset vehicle maximum speed (forward and backward)	3
	Reset vehicle maximum speed(forward)	4
	Reset vehicle maximum speed (backward)	5
	Reset booster multiplier (yellow and red)	6
	Reset yellow booster multiplier	7
	Reset red booster multiplier	8
	Reset acceleration multiplier	9
Clip communication	Communicate with other clip without displaying him	1
	Communicate with other clip and display him	2

NOTE: Difference between old and new method of gravity change consist in different effect on the car. New gravity change only force, how the car is attracted to the ground when he is in air. Old gravity method change vehicle gravity everywhere, which affect on attraction everywhere and change other vehicle parameters, especially controllability.

NOTE 2: New Mediatracker functions uses few unused values that are in MT clips. One of them is used by reference frame function which is in the game, but if i good know doesn't have any practical application. Anyway, if you set that reference frame all your functions parameters will be overwritten.

4.1 MediaTracker – Keyboard shortcuts

MediaTracker uses new keyboard shortcuts, which allow to set above functions. They works only as in-game clips and you can use them when you haven't selected any track like text, camera etc. (you can use shortcuts also in outro, but they haven't any effect).

Shortcut	Function
LCtrl + Q	Change catalog on first slot
LCtrl + W	Change function on first slot
LCtrl + E	Change value on first slot
LCtrl + A	Change catalog on second slot
LCtrl + S	Change function on second slot
LCtrl + D	Change value on second slot
LCtrl + R	Display current selected clip on start countdown
LCtrl + F	View current selected clip settings

4.2 MediaTracker - Changing physics parameters

IMPORTANT NOTE: All changes in vehicles physics can be done only by mediatracker on new maps and it's only dependent from the map creator. TM Unlimiter doesn't allow to cheat on classic maps, and on those with those features physic changes works in the same way to all players on the map.

To change any physics value, you need to place a starter clip in place you want it to change:

After placing a clip, you can change the catalog using LCtrl + Q. To change physics, press this combination once. A following message box should appear:
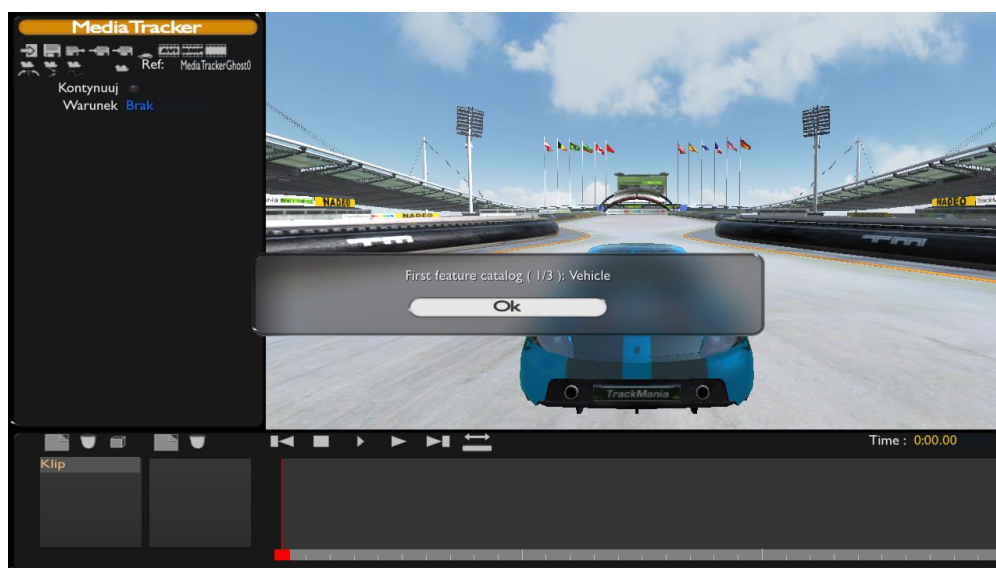
After clicking OK, press LCtrl + W, following window will appear:
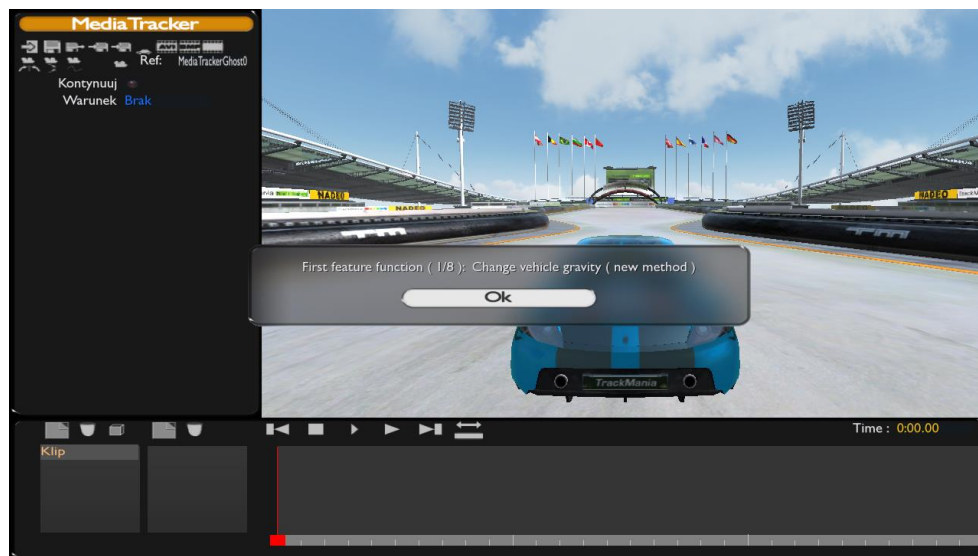
Now you need to change the value. To do that, change condition to unlock the place for writing the condition. Type in the condition value, and press LCtrl + E. This will apply the value to the condition and save it.
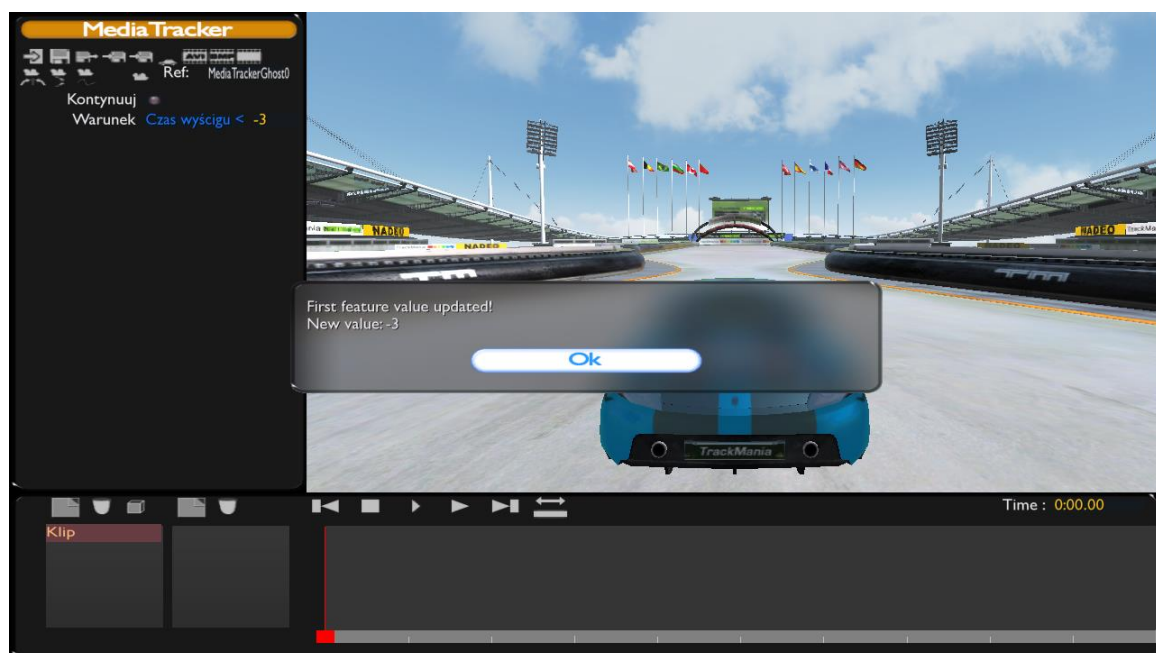
After that the condition should automatically turn back into *None*.

4.3 MediaTracker - Communication between clips

Communication between clips allows you to:

- Modify more than two values at one starter (by using more than one clip)
- Displaying different clip on the screen than triggered one

At the moment, in unlimiter there are two options to connect clips. They both need clip ID, which you can find by clicking LCtrl + F, while having clip chosen. First of them communicate only with another clip functions. Second one will also communicate with another clip functions, but also show on the screen all default mediatracker effects.

How does Clip communication work?

1. The condition is being checked (*if any exists*) - If it does not match, nothing will happen.
2. If conditions matches, two options will happen (if they're defined in clip itself).
3. After making two options - depending on option that is chosen, clip effects will be displayed on screen.

NOTE: You have to avoid situations when your clip communication will have infinite loop, when for example first clip will communicate with second one, and second will communicate with first, and then he communicate with second again etc. This usually make infinite function loop, and consequently game crash by stack overflow.

4.4 MediaTracker - Advanced example

As an example, we'll connect three clips to change physics values in dependence of race time.
In this example as a final effect we'll get changed acceleration when race time will be less than 4 seconds when we hit clip starter, or if race time will be larger than 4 seconds, gravity will be inversed. To realize that effect we have to create 3 different clips.

Clip 1 will be our base clip. After creating we have to put his starter to our position, because this starter will later connected to two different clips, whose will change our car physics parameters.

When first clip is placed correctly, we have to create two others clip, which we'll connect to our first clip. Clips whose will activated via other clips, doesn't need to have their own starter. You can always add his to them, which allow you to create more combinations of clip starting, but we don't make this here. When two others clips will be created, we can start to set communications between first and two other clips. To do that, we use all two function slots in our first clip. To set first function slot to communicate with another clip, we have to set *Clip communication* (catalog nr - 3) catalog what we can do by pressing LCtrl + Q shortcut three times. Now, we have to select *Communicate with another clip* (function nr - 1) function from this catalog by pressing LCtrl + W shortcut once. When we have selected correct function, as last step we have to set function value. To do that we have to set any condition, and in condition value field we have to put our new function value. In this situation, on first slot we want to communicate with second clip, so we have to set *Clip ID* to value 1, because clip IDs starts counting from 0 (you can see clip id also by clip settings preview - LCtrl + F). To save our new value to first function we have to press LCtrl + E. If everything is correct, first clip condition should reset to *None* again. Now when you have set completely first communication function, you have to set second function in the same way, but with LCtrl + A shortcut to change second slot catalog, LCtrl + S to change second slot function and LCtrl + D to set value on second slot. Second function will communicate with third clip, so now we have to set Clip ID value to 2.

After correct setup on both slots, on clip setting preview (LCtrl + F) we should see that result:
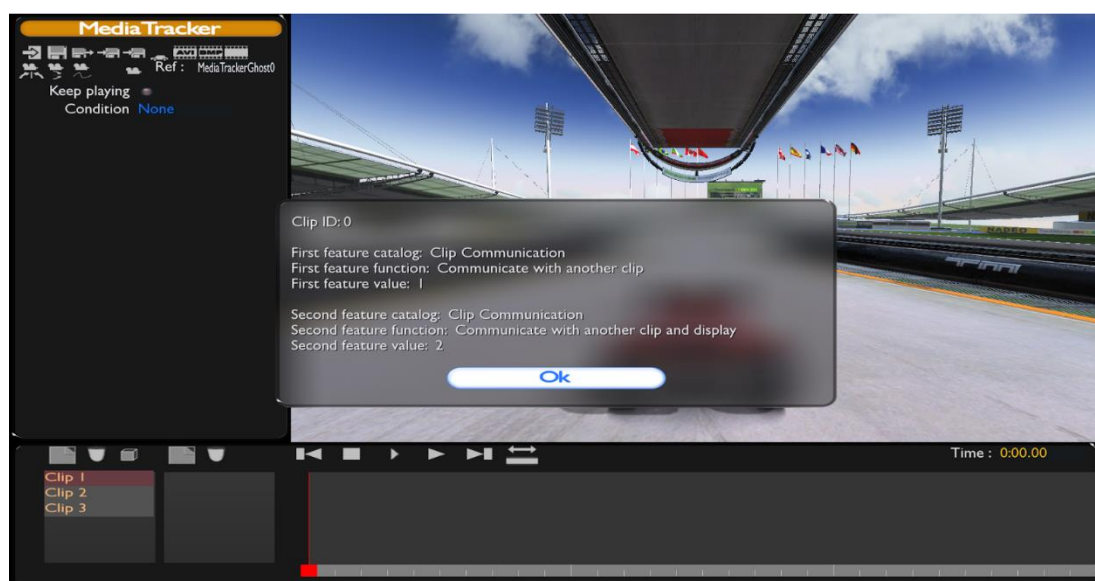
Because we want to do one of those functions anyway, we don't change our *None* condition.

As a next step we'll set our second clip. His function will change vehicle acceleration only if the race time will be less than 4 seconds. As a first thing, we have to change our vehicle acceleration. To do that we have to select *Vehicle* (3) catalog (LCtrl + Q) and change function to *Change vehicle acceleration* (8) (LCtrl + W). Now we have to set our acceleration multiplier value. In this example we'll change it to 5, so we have to write that number to Condition value field, and save (LCtrl + E shortcut).
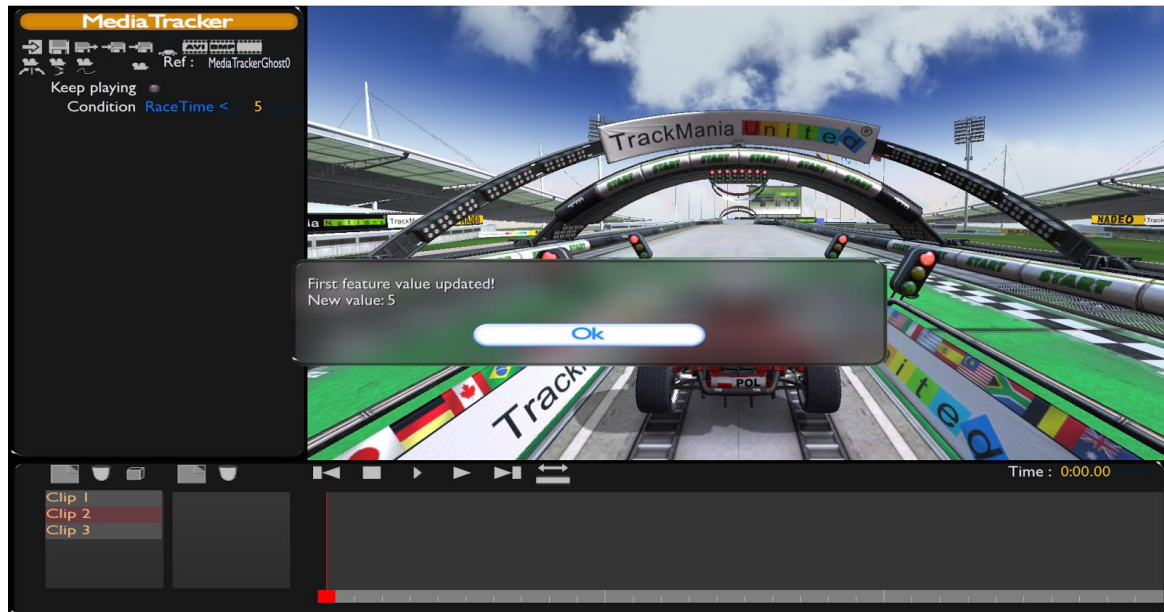
When we have correctly set our function, last thing that we have to do in second clip is set correct condition. As I was writed before, acceleration should change only if race time will be less than 4 seconds. To set that value, we have to set condition to *RaceTime* < 4, in the same way like on below screenshot (red mark).

Whole clip on *clip preview* (LCtrl + F) should look like this:

Last thing left in our example is set third clip correctly. In this clip, we have to invert gravity and set correct condition. To change gravity we can write value with minus, but we'll use more simple method named *simple inversion.* To use it we have to only set *Vehicle* (1) catalog and *Change vehicle gravity (simple inversion)* (3). With this function you don't have to change any value. Current value of gravity will be automatically changed to negative one.

After that, only thing what we have to do is change our condition to RaceTime > 4. *Clip preview*:
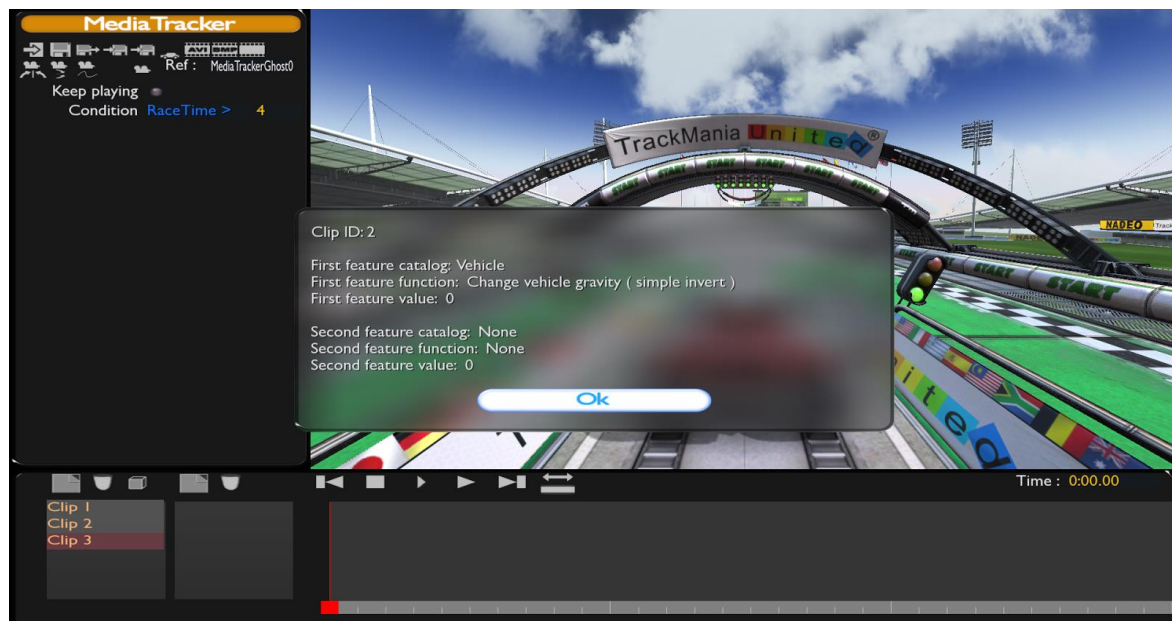
With this combination, as a result we have a clip, which in different time change our car physics in different way. Of course we always can tune our clip by adding default mediatracker effects. As example we add to our third clip simple text "I'm flying!". All default effects can be add as usual without any problems and can be combined with any additional functions. But **here's important note**, if you want to display clip, what is started by other clip you have to set in *Clip communication* catalog function *Communicate with other clip and display him.* If we don't change that, function for physics changes will work, but any classic mediatracker effect like text, camera etc. won't be displayed on the screen. In our example, we have to change that function in first clip on the second function slot. **Another important thing** is note, that clips effect doesn't merge on the screen and in a chain of clip communication, on the screen displayed is only the latest activated clip, whose condition has been met.

After those changes, our third clip should look like this:

And functions on our first clip should look like this:
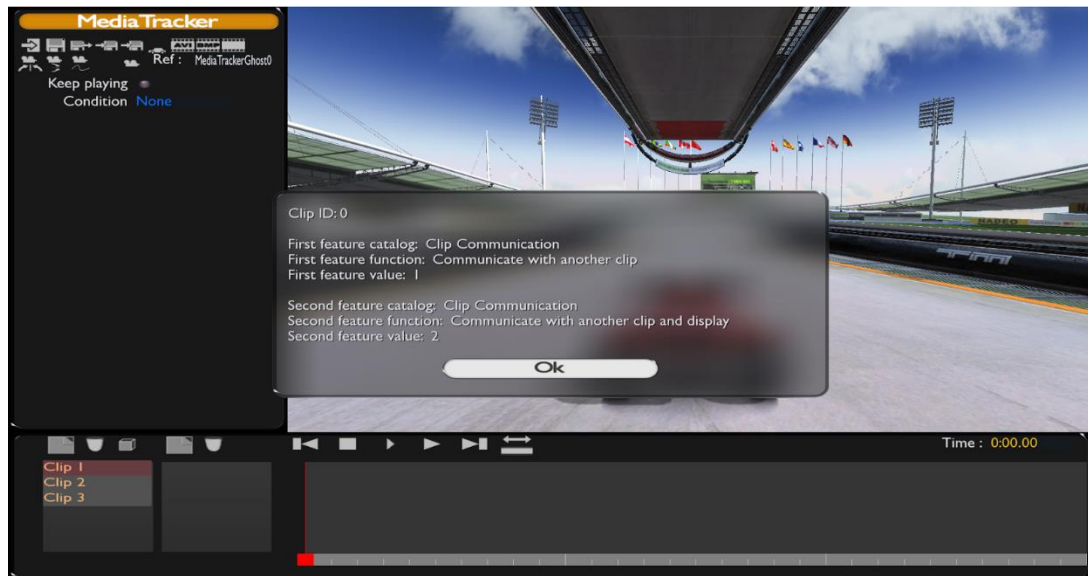
Finally we obtained result what we want, with additional text for third clip. Important fact is, that this text will be displayed on the screen only if our race time will be larger than 4 second, so only if our gravity will change as we set.

You have here link for my preview map with unlocked editor, so you can see in your editor how everything works : https://united.tm-exchange.com/main.aspx?action=trackshow&id=4842304#auto

This example should present you how new functions in mediatracker works. On your tracks you can made by clip communication huge algorithms, whose give you almost infinite possibilities to make your tracks unusual.

4.5 MediaTracker - Default car parameters

Car	Parameter	Default value
SnowCar	Gravity	4.00
	Yellow booster multiplier	10.00
	Red booster multiplier	10.00
BayCar	Gravity	3.00
	Yellow booster multiplier	3.00
	Red booster multiplier	20.00
CoastCar	Gravity	1.75
	Yellow booster multiplier	5.00
	Red booster multiplier	20.00
SportCar (Island)	Gravity	4.00
	Yellow booster multiplier	2.50
	Red booster multiplier	20.00
Rally	Gravity	4.00
	Yellow booster multiplier	5.00
	Red booster multiplier	5.00
American (Desert)	Gravity	4.00
	Yellow booster multiplier	3.00
	Red booster multiplier	3.00
StadiumCar	Gravity	2.50
	Yellow booster multiplier	5.00
	Red booster multiplier	20.00

5. Custom blocks

TMUnlimiter allows you to import Custom Blocks. At this point you can import custom block, but for now without textures and collisions. Custom blocks can be saved on map and load it back by everybody without any problems, only if player has imported the same model to the game correctly.

NOTE: When uploading map to the site like TMX, it's recommended to add a list of custom blocks on map. If you can add links to direct download, it will be appreciated..

5.1 How to install custom blocks?

Installation of custom block is very easy. Just create Blocks, folder in TrackMania Tracks documents, exactly in C:\Users\UserName\Documents\TrackMania\Tracks.

When it's done, create a folder with the exact same name as the block file name, next copy *.Solid.Gbx. file inside.

Example of correctly imported block, GoldenGate (download link in 5.2):
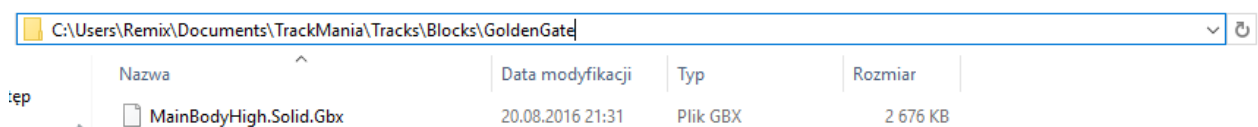
A bookmark with number 9 will appear in your editor. You'll find your block there.

NOTE: If above installation method does not work, please delete file:
...Documents/TrackMania/Config/User.FidCache.Gbx

NOTE 2: To launch track with custom blocks, you need to enter the editor first to load the block into the game, it will be fixed, as soon as work on custom blocks will progress.

NOTE 3: In future releases method of installing custom blocks may change. Keep that in mind.

5.2 How to create custom blocks?

Having any file in *.Solid.Gbx format, you can load it as a block. Before loading it in editor, you need to edit the file structure. By default converted *.Solid.Gbx file have *"GameBoxDummy"* name which Unlimiter automatically rejects while loading. After successful change you can place file into new folder described in previous chapter.

Example of correctly created block: http://www.kemot0055.boo.pl/tm/GoldenGate.zip

6. Known issues

- Problem with Undo/Redo functions, which has many problems with new unlimiter functions and often make game crashes. Game immediately crashes on oversized maps (256+) when you use this function. It's recommended to use only blocks deleting. Undo/Redo are very complicated functions, those problems probably won't be fixed.

- Problem with wrong saving replays with huge sizes map (+255) and inverted blocks. Solution in research. For now you can use Krzychor's program to manually fix replays, useful for tmx. https://united.tm-exchange.com/main.aspx?action=threadshow&id=4724293&postid=4835891#auto

- Problem with deleting blocks on stadium env placed with function s*nap to ground,* (all blocks with height Y=0) after map reload, which made instant crash. This problem is caused by Trackmania code, which is not adapted to place block on height 0 so this can be hard to fix. You can always try to delete block on that height with any outside editor ex. Challenge Edit.

- Some blocks can't be inversed

- Inversed checkpoints may not work properly and respawn the car normally instead reversed

- Drawing inversed roads doesn't work properly - turns and junctions will be rotated in other directions. You can avoid that with turning off blocks updating, and later create turns in other directions.

7. Full changelog

1.0 release:

- Fixed problem with wrong standalone hills height, which was unexpectedly increased after saving map.

0.7 beta 3 release:

- Finally added new dll injector exe file created by Remix which should fully support Windows 10 Anniversary Update so you probably won't be more needed to use any outside tool to inject dll file! You'll recognize it by new, great island car icon created by Trzyzet. If you'll have any problems with it, make sure that you have installed VC++ Redistributable 2015, if not, get it from this link: https://www.microsoft.com/en-us/download/details.aspx?id=48145 If you'll have any other problems post them on official TMUnlimiter thread. This exe should work on any windows version, but if not, I add old exe file named *TmUnlimiterOld.exe* with red cabriolet icon.

  NOTE: For steam version of Trackmania you have to change steam TmForever.exe for this from standalone game. Remix send united one: https://united.tm-exchange.com/main.aspx?action=threadshow&id=4724293&postid=4839916#auto

- Finally we created documentation of unlimiter possibilities! You can see this documentation in beta 3 download!

- Added possibility to made all environment mixes when starting create new map in track editor via TMUnlimiter.ini file (custom size, vehicle and decoration mixes), so there's no more needed to use any map presets. More info in User Manual.

- Added possibility to add mediatracker clip on start counting via keyboard shortcut in ingame MT. Works only with some effects.

- Remapped all track editor shortcuts. Now they works LShift + sth and use different algorithm, so there's no more needed to push your mouse to active shortcuts (but you still have to select any block).
- Changed all messages from windows messagebox to ingame messages! Now there's no more problem to use all new features in editor on fullscreen mode!

- Now in Mediatracker, when you set your function value via LCtrl + E/D shortcuts, the condition will be automatically changed to None, what should avoid situations with accidental conditions.

- Fixed old TrackMania Forever glitch with wrong Mediatracker *racetime* condition on multiplayer servers. Now this condition is only depended from player racetime (as it should be), not from map time on the server. Fix works only with unlimiter dll file.

- Fixed strange unlimiter glitch in multiplayer, which cause reset custom physic parameters to all players, when someone connect to the server as player.

- Fixed a shortcut conflict in MediaTracker LCtrl + D, which updated second function slot and at the same time duplicate actual MT track.

- Completely rewrited standalone hills algorithm. Now they shouldn't make any unexpected crashes while loading maps (united clients only) and also now works with undo/redo functions.

- Nations clients now can add, load and save custom blocks - More info in user manual.

- Unlocked vehicle maximum speed - You can now set in MediaTracker function maximum speed greater than 1000 units. Of course default one wasn't changed.

- Fixed bug with clip creation on maps with custom sizes.

- Added option to change default draw distance value in TMUnlimiter.ini file. Also draw distance can be changed immediately in game by pressing LAlt + plus and LAlt + minus shortcuts.

- Fixed bug with block inversion on 6->2->6 and 6->2->8 blocks (*Stadium environment*)

- Fixed bug with resetting acceleration values.

0.7 beta 1 / beta 2 release:

- Added ability to inverse blocks upside down

- Added things into MediaTracker clips - Every MediaTracker clip have space for two functions. And you can place following functions:

    * Change vehicle properties, for example: gravity, max speed, acceleration or turbo multiplier
    * Resetting vehicle properties to default values
    * Communicating with other MediaTracker clips and displaying them on the screen

- Added a function which removes stadium background

- Added ability to add custom blocks (STILL work in progress, textures and collisions doesn't work at this moment and only united clients can add and load a custom block).

- Fixed terrain bugs/glitches: Hills work better and are now recognizable as a separate block

- Fixed crash which was caused by adding blocks outside of the building area (now the selection changes its color to red)

0.6 release:

- Added snap to ground which can be toggled with B + Shift shortcut (note: If you try to remove snapped blocks after reload on stadium, game will crash!)

- Added option to place terrain and hill blocks (note: After map reload blocks from main environment cannot be removed!)

- Added new editor interface (if you have any suggestions to editor interface, please add post below this changelog)

- Added default values in config for creating block clips or restoring block variations after remove event…

- Added option to create maps larger than 256, up to 2048 blocks X/Y/Z

- Included hill thumbnails and quay thumbnail (created by remix and krzychor)

- Changed displaying block properties when you click right shift

- Fixed a crash when you hadn't a selected block and pressed space

- Fixed a crash when you tried to place block with clips or restoring block variations after remove event…

- Fixed a crash when you tried to place block with clips on negative map cords

- Removed undo/redo buttons (shortcuts still works in editor, but it's not recommended to using them on map size larger than 256)

- Removed building base in snow which was in 9->3->1

0.5 release:

- Select manually block variations (only air, ground or back to default automatic selection)

- Build a track with hidden blocks like Quay on Coast, Hidden Tunnels on Island and many more!

- You can turn off creating block clips which helps in some situations

- You can save a block variation after remove a block without any problems!