

# **TUTORIAL MOVERS & TRIGGERS for SWAT4**

*By Sébastien NOVA*

Note : This tutorial is for experimented users. I just made an adaptation of what I know of the Unreal Editor on the swat Editor. ( big thanks to the Unreal community for there tutorials and **Angex Gecko** for his tip ☺).

I also include in the package 5 test-maps for a better explanation of the working and the setting of the movers according to the next sections.

## **Sections :**

1- **Simple Mover** (Nova-mover-1.s4m)

2- **Mover & Trigger** (Nova-mover-2.s4m)

3- **Mover activated by a button** (Nova-mover-3.s4m)


4- **Mover in constant rotation** (Nova-mover-4.s4m)

5- **Light attach to a Mover** (Nova-mover-5-6.s4m)

6- **Elevator** (Nova-mover-5-6.s4m)

## 1- Simple Mover

### ***a-Creation :***

1-To create a mover you have just to select a static mesh in the static mesh broser ( this icon  ).

You can also create your own by convert BSP geometry to static mesh and then select it in the static mesh broser.

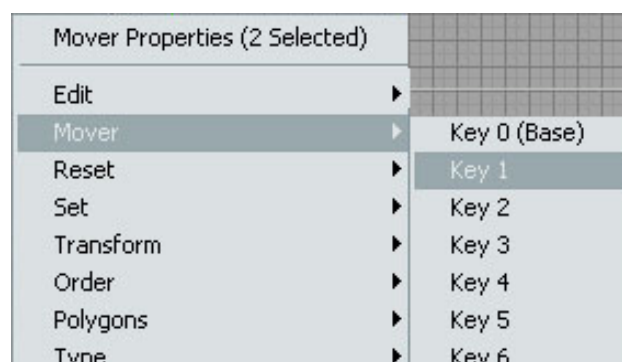
2-Click the icon  " add mover ".

You so obtain a **purple brush** of the same shape of the static mesh selected.  
(It appear at the origine of the red brush)

**It is your mover.**

### ***b-Setting :***

First you have to place the mover on the desired initial position.  
Then you have to make a right clic on it and choose mover / **key 1**.



Now remove your mover at it second position. Right clic and choose mover / **key 0**.  
Normally your mover is returned at it initial position.

Go to the **properties** of the mover.

\* **Events/tag** : put a name of your choice. It's not important now but if you want to use your mover with a trigger (see below), it's very important.

\* **bTriggerOnceOnly** : If you want that the mover moves just once.

\* **DamageThreshold** : to use with bDamageTriggered in "true" : the number of Damages which we have to impose it so that it move.

\* **EncroachDamage** : when we hit under the mover or when we block it, number of damages which that causes to the player. (not tested yet)

\* **MoveTime** : the time which puts the mover between 2 keys.

\* **StayOpenTime** : the time when it stays in its key of arrival before come back.

\* **MoverEncroachType** : means what do the mover when it run into something. You can select the following explicit options :  
ME\_ReturnWhenEncroach, ME\_StopWhenEncroach , ME\_IgnoreWhenEncroach,  
ME\_CrushWhenEncroach : means that the mover kill the player or the pawn when they run into it.

\* **BumpType** : Who can launch the mover by bump. "PlayerBump" is setting by default. Use "AnyBump" for elevator.

At the line "**Object/InitialState**" you have the choice between five options :

**"BumpOpenTimed"** :  
by default. The mover is going to start when we touch it.

**"StandOpenTimed"** :  
Activate the mover when we walk above. For elevators.

The following options are to use with a trigger (see below).

**"TriggerControl"** :  
The mover goes and stays at its second position as long as someone is held in the trigger zone. The mover returns to its initial position as soon as we go out of the trigger zone.

**"TriggerToggle"** :  
The mover goes to its second position as soon as we go into the trigger zone. It is then necessary to go back in the trigger zone so that the mover returns to its initial position.

**"TriggerOpenTime"** :  
When we pass in the trigger zone the mover makes its movement and returns in its initial position in a automatic way.

## **2- Mover with Trigger**

A mover who works itself, it's well. But a mover who works only when you want, it's better!

We need a trigger to do that. But **first of all** you have to know that **you must enter a “tag” name in your mover and put the same name in the “event” of the trigger otherwise it never will work.**

### ***a-creation :***

To put a trigger in your map, go to the actor browser /engine/actors/triggers/trigger and make “add trigger here”. If you select it and hit the “L” key you can see its volume collision (adjustable in the collision menu).

### ***b-setting :***

Go to the trigger's **properties**.

**\*Events/event :** put the same name you have entered in the mover's tag.

**\*bInitiallyActive :** “True” by default. “False” means something must activate the trigger (another trigger for example).

**\*bTriggerOnceOnly :** On “True” it will work once .

**\*ClassProximityType :** Used to define the ClassProximityType under TriggerType.

**\*DamageThreshold :** How much damage you must inflict on the trigger when its type is set to TT\_Shoot.

**\*ReTriggerDelay :** Time delay before trigger can be re-activated.

At the line “**TriggerType**”, you can choose between five options :

“**TT\_PlayerProximity**” : The trigger is activate when the player go to the trigger zone.

“**TT\_PawnProximity**” : means only pawns can activate the trigger.

“**TT\_ClassProximity**” : The trigger is activate by a class which are defined in ClassProximityType.

“**TT\_AnyProximity**” : means all types of the TT\_ Proximity can activate the trigger.

“**TT\_Shoot**” : means you have to shoot the trigger to activate it.

In the menu Object,

at the line “**InitialState**”, you can choose between few options :

**Normal :** By default. The trigger works when activated.

**None :** will deactivate the trigger altogether.

**OtherTrigger :** If you want that your trigger is activated by another trigger.

### **3- Mover activated by a button**

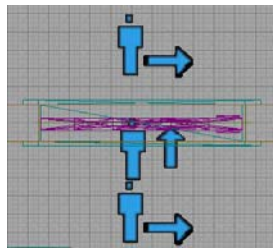
Imagine you want a door who is open by pushing a button.

Just make your 2 movers (one for the door, one for the button) and set a **tag name** (door\_mover1 for example) in the door-mover. In its InitialState you must choose **"trigger toggle"**.

Go to the button-mover and set an **event name**, in our case put door\_mover1.

**Important tip for door :** You have to use 2 actors named "LiftExit" & "LiftCenter" to allow the officers to pass through the door. They usually use for elevators but I have to cheat a little ! they may cause an error in rebuild but it works properly in game.

So place the lift exit on both side of the door and the lift center on the center of door. Set the room name and the lift tag of both actors according to your door location and tag. Rebuild and test.



Actor / NavigationPoint / LiftCenter or Exit.

### **4- Mover with constant rotation**

Imagine you want create a fan.

Just make a mover like you want, place it on the right place and go to its properties and set in the menu "movement" :

**"bFixedRotationDir"** on **true**

**"bIgnoreEncroachers"** on **true**

At the line **"Physic"** choose **PHYS\_Rotating**

At the line **"RotationRate"** put a value of **one** of the three possibilities (Pitch or Yaw or Roll) according to the dimension (horizontal, vertical, deep) you want to rotate.

### **5- Light attach to a mover**

Well, imagine you want to create an elevator with a light inside.

After create your elevator-mover place a **dynamic light** at the desired position and go to its properties.

At the line **"movement"**, put **the tag name of your elevator** on the line **"AttachTag"**. Rebuild.

Note : However it's not always well work for unknown reasons ☹

## 6- Elevator

Note : The elevators can work on Swat4 but don't dream too much, **the Swat4 is not design for the use of the elevators by the AI** so their working is aleatory ☹.

1-Choose or create a static mesh in the browser for your elevator, and make "add mover".

2-Go to the properties of your elevator mover and just set the "**initialstate**" at "**StandOpenTime**".

Now we have a nice elevator who work when we walk above. It's perfect for a MP map (without AI).

But in SP mode, your team mates don't know how use it.

3-So you have to put "**lift exit**" and "**lift center**" to your map (Actor/Navigation point/LiftCenter or Exit). Just set the room name and the lift tag of both actors according to your elevator location and tag.

4-Place the lift exit ahead the elevator and place the lift center in the... center of your elevator, of shure lol. Rebuild.

Now you can test it. The AI can take (with little efforts sometime!) the elevator (but not the enemies ☹).

**Important** : For a better working, the elevator must be enough wide to carry the 4 officers and I advise you to use a button or a trigger to activate your elevator in order that the four officers have the time to climb on the elevator. Otherwise you can have nice surprises at the descent (a team mate who throws itself into the space for example).

With this tutorial I hope I'll can help you to create lots of originals maps for one of my favorites games : the Swat4.

Good mapping !

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