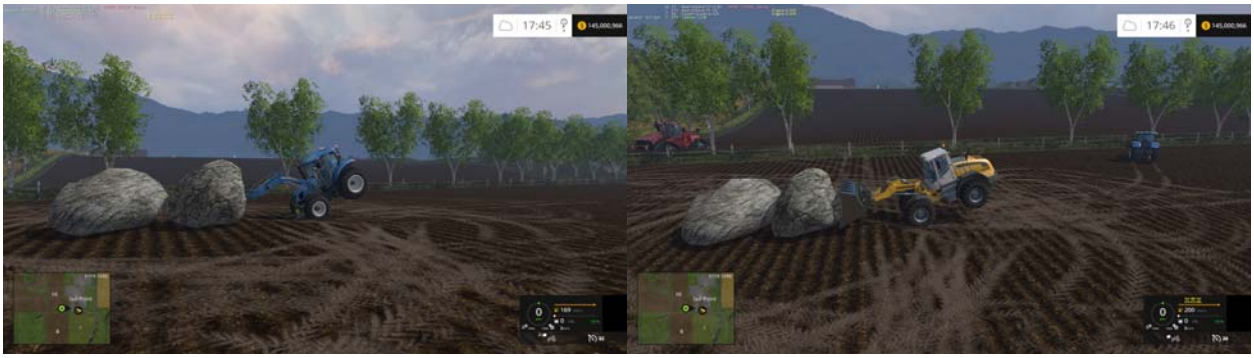
ROCKS

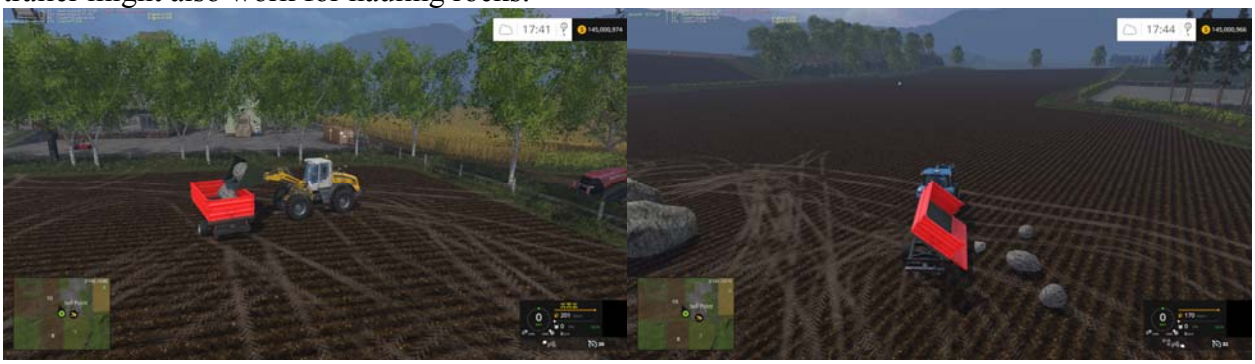
For those that enjoy a few extra challenges while playing Farming Simulator, placement of movable stones in one's map might be for you. This tutorial comes with a small pack of stones, some of which were taken from Giant's FS 2011 and upgraded to FS 15, and some of which are new. The pack includes twelve stones of varying sizes. Each could be scaled differently if chosen, but that is beyond the scope of this tutorial. The Giant's rocks are shown below:

These rocks are 'dynamic' objects, meaning that they are movable in-game. The smaller rocks are easily handled by the front loader and wheel loader. The larger rocks, not so much!

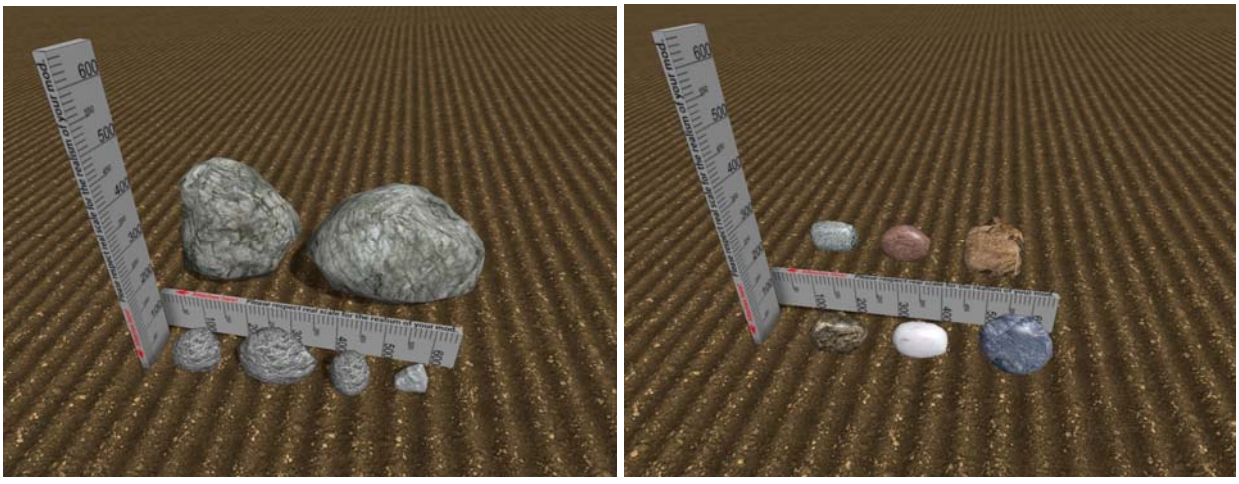


With enough horsepower, the largest rocks can be pushed, whether by the largest tractors found in-game, or with one of the bulldozer mods available on the internet. Perhaps there is even a mod out there that would be able to lift them; one would have to look.

Not all trailers/vehicles are suitable for rock hauling. The trailer below was a mod edit I found on the internet of the in-game Bratner trailer. It handles the smaller rocks, but probably wouldn't be the best for the larger rocks. Perhaps a lowboy trailer would work better for those. A flat bed trailer might also work for hauling rocks.



The pictures below give some idea as to the scale of each rock in the pack. The rocks at the left were created by Giants, the rocks on the right by Tyro Smith. If I understand the ruler's scale correctly (which was created by Bayn - http://fs-uk.com/mods/view/9016), "100" corresponds to 100 cm or 1 meter:



All of the rocks can be placed in-game, just like any other placeable object. Alternatively, they can also be placed directly in GE, subject to caveats noted further on in this tutorial.

While it might be enjoyable simply moving rocks out of one's way or from place-to-place on the map, it seemed helpful to also have a means to dispose of them. Following the steps in the tutorial that follows will enable one to effectively 'sell' or 'destroy' the rocks using the bale destroyer trigger.

HOW TO PLACE ROCKS

There are basically three ways to get rocks into your map:

1. The rocks can be imported into and placed in the Giant's Editor (GE).
2. The rocks can be treated as a placeable item in-game.
3. The rocks can be treated as an 'item' (ie, a bale) in the defaultVehicles.xml file.

Which option you choose depends on your purpose.

Option # 1 – In GE, the rocks can be treated as dynamic (ie, they can be moved about as shown in the pictures above), or as static (ie, they stay in one place and don't move). The main problem of placing rocks in GE is that they stay there permanently. If you want to move rocks about AND have your savegame remember where you moved them, then rocks should not be placed in GE. Each time you restart your savegame, the rocks will have returned to their original placement and have to be moved all over again.

Option # 2 – The rocks can be placed in-game and moved around easily. The savegame will remember where they were moved to. You could also place them and include them in the defaultVehicles.xml file, so that the rocks are there when a player starts with the map. However, there's not an easy means of destroying or selling the rocks, except through the 'P' menu. This can be done if you wish, but it seems cumbersome.

This leaves us with Option # 3, which can be a bit ticklish to implement, and this is the focus of the rest of this tutorial. The accompanying pack (Placeable_Rocks.zip) includes twelve stones, named as follows:

- Giants_Rock1.i3d
- Giants_FieldRock01.i3d
- Giants_FieldRock02.i3d
- Giants_FieldRock03.i3d
- Giants_LargeRock01.i3d
- Giants_LargeRock02.i3d
- TyroSmith_Rock1.i3d
- TyroSmith_Rock2.i3d
- TyroSmith_Rock3.i3d
- TyroSmith_Rock4.i3d
- TyroSmith_Rock5.i3d
- TyroSmith_Rock6.i3d

1. Put the Placeable_Rocks.zip file into the mods directory and open your map in-game. Place all the rocks you choose at whatever locations on your map that you want to have rocks. Save the game and exit.

2. Open the vehicles.xml file of your savegame in Notepad ++. You should see a number of 'items' in this file that correspond to your placement of each rock. An example is as follows:

```
<item className="Placeable" modName="Placeable_Rocks" filename="$moddir$Placeable_Rocks/TyroSmith_Rock4.xml" position="427 96 536" rotation="0 0 0"/>
```

3. Convert these items to 'bales,' which will make the game think they are bales and allow them to be destroyed at the bale destroyer trigger. To do this, you need to update the aforementioned line as follows (yellow areas highlight changes):

```
<item className="Bale" modName="Placeable_Rocks" filename="$moddir$Placeable_Rocks/TyroSmith_Rock4.i3d" position="427 96 536" rotation="0 0 0" baleValueScale="1" fillLevel="100"/>
```

4. Copy and paste this line (and all other rock lines you modified into bales) into the defaultVehicles.xml file of your map. Now your map will have these rocks in it when the map is opened, and it will give the player the ability to sell/destroy them at the bale destroyer trigger from the get-go.

5. That's it. Re-zip your map after the changes above, and place it in the mods folder. When you start a new game, the rocks will now appear at your specified locations. If you already have a save game in progress and wish to insert rocks into it, follow the same steps above using the vehicles.xml file in the save game folders. However, if you wish to have the rocks in the map at the beginning, you'll need to put this information in the defaultVehicles.xml file.

   In order to fit the xml code shown above onto a single line, I shrunk the font – you may wish to make it larger for ease of reading. The above should be all that is needed to get this to work, but a few additional notes are included on the following pages for reference purposes.

REFERENCE NOTES

Vehicle File XML Code

- className="Bale" The rocks are essentially seen as 'bales' in game, which is what allows them to be removed at the bale destroyer trigger.
- position="### ### ###" This refers to the 'translate' position of the stones, or the geographic location of the stone on your map. These are three numbers in turn: X Y Z.
- rotation="### ### ###" This refers to the 'rotation' position of the stones and likewise refer to three numbers in turn: X Y Z. It represents the orientation of the stone where it is placed. I left these at zero in the example above, but these could also be modified.
- fillLevel="100" Ordinarily for a bale, this number would be 4,000. In my experiments with this, I put the value down to 100, which drastically reduced the amount of income received when a rock is disposed of at the bale destroyer trigger. If put to zero, I'm assuming no income would be received upon disposition of the rock.

File Locations

If a map maker includes these rocks in the defaultVehicle.xml file, the player will obviously need to have the Placeable_Rocks.zip file in his/her mod directory for this to work. This would mean that this rock pack becomes a 'required mod' in order to play your map.

Alternatively, if you want your map to be playable without the rock pack needing to be in the mod file, you could extract the relevant files from this pack and put them in one of your map directories, such as the following (where MAPNAME is the name of your map's zip file):

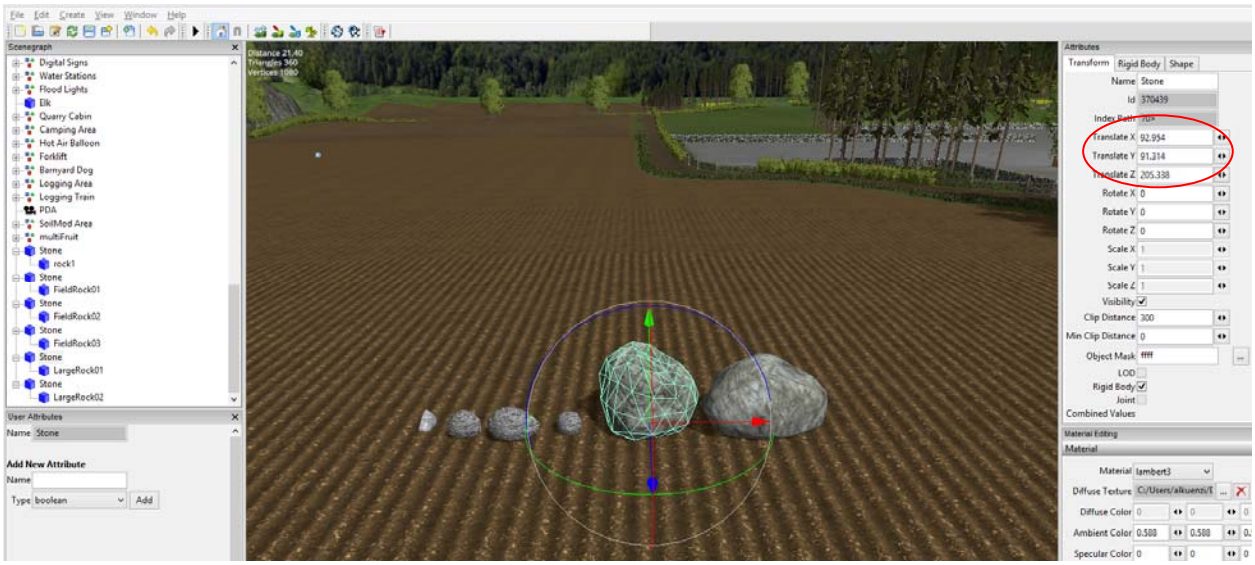
MAPNAME/map/models/natural/stones

Then you would need to modify the filename part of the item shown above in step # 3 in the defaultVehicle.xml file. It might now look something like this:

```
<item className="Bale" modName="MAPNAME" filename="$moddir$MAPNAME/map/models/natural/stones/TyroSmith_Rock4.i3d" position="427 96 536" rotation="0 0 0" baleValueScale="1" fillLevel="100"/>
```

Obviously, the file location needs to be modified according to where you actually have it. Having these rocks embedded in a map directory will eliminate the need for a player to have the Placeable_Rocks.zip file in their mod directory.

Translate Y Position



You may or may not have to manipulate the position of the rocks in the xml file. But if you need to, or if you prefer to place your rocks using the text editor rather than in-game, it's useful to remember that the X and Z position axes are on the ground-level plane in the map. Think of these as coordinates as to where the rock will be on your map. The Y axis moves an object up or down, above or below this plane (ie, up into the sky, or below the ground level). As you can see above, the Translate Y value for the selected stone is 91.314, which is the approximate ground level. I experimented with this in the defaultVehicles.xml file, trying it with values of 80 (below ground) and 100 (above ground). In-game, the results were as follows:

- Translate Y = 80 – The rock did not appear in-game. However, it DID show up in the savegame files. The position had changed to a large negative number. It must mean that if the rock is mistakenly placed below the map surface, it will fall and continue to fall, yet not disappear. It's probably something that would ultimately impact game performance.
- Translate Y = 100 – The rock appeared in-game on the surface of the map. Perhaps it started ten meters above the surface, and then fell to ground level when the game started.

Here's the point: Make sure the rocks are placed above the surface with the Translate Y value. It doesn't have to be perfectly set to the surface, but you should avoid placing them below the surface as you will never be able to get at them.

Number of Rocks

Each of these stones are dynamic and movable, and as such, present game engine physics issues. Too many rocks will negatively affect game performance. In other words, the greater the number of rocks, the greater the impact to game performance and potential lag. Choose the number of rocks you place in your map accordingly.

THANKS

Many thanks to the following individuals for their thoughtful review and input, patient handling of my questions, and encouragement:

- Nomadjc – My Farming Simulator mentor and the one that listened to the most grumbling as I worked my way through this.

- AlbertL
- Marhu
- Seriousmods
- Stevie
- Yatidaum
- Wilde Wilde Wez

CREDITS

Last, but not least, the all-important credits. The rocks were created by the following:

GIANTS
Tyro Smith (http://thetyrosmith.weebly.com)

Any mistakes in bringing them in-game are obviously mine. Please feel free to use these rocks as you please. There is no need to ever mention my name, but please respect the work of those noted in these credits.