



Modification instructions for the Attachable PTO/hose script

In order to make full use of the script, your mods using a PTO and/or a hydraulic hose need to be modified., specifically for the use of hydraulic hoses.

In this short manual we will explain to you in detail what needs to be done.

There are two sorts of modifications you may need to do. The first is a modification to your tractor of choice. The second modification needs to be made to your implement of choice.

Modification to tractors

For this modification, you can use the New Holland 8970 tractor as an example. This tractor comes with the script as an Example Mod.

1. Unzip your tractor mod into it's own folder, so that you can safely make your modifications.
2. Open the i3d file of your tractor.
3. Create a new transformGroup, and make sure you make it a child of the mother-node that holds the tractor. In the case of the New Holland, you will find the hose joint at index 0>14|5. In this position, it is a part, or a "child" of the mothernode 0, called "NH_8970".
4. Move the new transformGroup to the position of your spool valve, and save the file. Make sure that you do **not** move the active camera. That is your outside camera. It should stay exactly where it is. Instead, create a new temporary camera within the file, and move that to place your transformGroup exactly into place. When the transformGroup is in place, switch camera's to your outside camera and delete the camera you added before. You don't need it anymore.
5. Save your i3d file.
6. Now, open your tractor xml file, find your AttacherJoints entry, and add the following bit of code:

`"hose="0>14|5"` (for the hydraulic hose attacher that you just added in the previous steps). Insert this in the same line as you find `ptoOutputNode="0>14|6"` (line 56)

For the trailer attachers, the line of code will look something like:

```
<trailerAttacherJoint index="0>14|4" maxRotLimit="10 80 80" ptoOutputNode="0>14|6"
"hose="0>14|5" ptoFilename="$data/vehicles/steerable/powerTakeoff.i3d"/>
```

For the implement attachers, the line of code will look something like this:

```
<attacherJoint index="0>14|0|0" rotationNode="0>14|0" minRot="18 0 0" minRot2="-10 0 0"
maxRot="2 0 0" rotationNode2="0>14|0|0" maxRot2="-10 0 0" maxTransLimit="0 0.5 0"
maxRotLimit="0 0 20" moveTime="2" ptoOutputNode="0>14|6" hose="0>14|5"
ptoFilename="$data/vehicles/steerable/powerTakeoff.i3d">
```

Add this for each AttacherJoint you want to be able to use the hose attacher.

NOTE: the script is designed to manage 1 hydraulic hose attacher for each implement. It is **NOT** recommended therefore to add multiple hose attachers to the same attacherjoint. You can add one to both your front linkage and your back linkage, but it is not advised to for instance add two hose

attachers to your back linkage.

IMPORTANT!! The index nodes mentioned above are taken directly from the New Holland 8970. On your tractor of choice, the nodes can be different. Make sure you take the **CORRECT** index-nodes from your i3d file, and copy them **EXACTLY** as you find them!!!

7. Save your tractor xml file.
8. Zip your mod up and place it back in your mods folder.
9. Try out your modification with an implement that is equally adapted to work with the Attachable PTO/hose script, and have fun!

Modifications to implements

For making implements compatible with the script, different modifications are required. If you need an example, the various FS-UK Modteam mods which include a hydraulic hose or are PTO-driven include these modifications.

1. Unzip the zipfile in its own folder.
2. Open the moddesc.xml file, and add the following line under the Specializations:

```
<specialization name="ImplementLinks" className="ImplementLinks"
filename="scripts/ImplementLinks.lua" />
```

Be aware that the red "scripts/" refers to the folder where the script is located. It is possible that some mods use a different name for this folder!

And under the header Vehicletypes, you need to add:

```
<specialization name="animatedVehicle" />
<specialization name="cylindered" />
<specialization name="ImplementLinks" />
```

3. Save the file.
4. Open the implement.xml file, and add the following bit of code:

```
<implementLinks>
  <powerShaft manualAttach="true" deattached="0>5|0" index="0>5|1" part="0>5|1|0"
fixPoint="0>5|1|0|0" />
</implementLinks>

<implementLinks>
  <hose index="1|2" part="1|2|0" fixPoint="1|2|1" />
</implementLinks>
```

For PTO-driven implements, you want to add the "powerShaft" line of code, take the required nodes from your i3d file. The powerShaft code has been taken from the FS-UK Modteam's Bomford Tri-Blade 3000.

The “hose” line refers to the hydraulic hose. You only need to add this line if and when your implement is actually equipped with a hydraulic hose, or when you added one. Take the required nodes from your i3d file. The hose code has been taken from the FS-UK Modteam's Warwick High Dump Trailer.

A small explanation:

`manualAttach="true"` – This means your PTO needs to be attached manually. If you want it to connect automatically when you attach the implement, then it should be set to `"false"`. You also need to remove `deattached="0>5|0"`.

5. Also add to your implement.xml, the following to allow the hydraulic hose to move on tractors without a hose joint (like the standard tractors):

```
<animations>
<!-- move hose down/up -->
    <animation name="moveSupport">
        <part node="0>1|2" startTime="0" duration="0.25" startRot="0 6 0" endRot="31.5 4 0" />
    </animation>
</animations>
<support animationName="moveSupport" />
```

These lines of code have been taken from the FS-UK Modteam's Warwick High Dump Trailer.

IMPORTANT!! All of the index nodes mentioned above are taken directly from an existing mod. On your implement of choice, the nodes can be different. Make sure you take the CORRECT index-nodes from your i3d file, and copy them EXACTLY as you find them!!!

6. Save the file.
7. Zip your files back up, add the zipfile to your mods folder.

We hope you enjoy your new mod functionality. Also, feel free to share your experiences with us on fs-uk.com or on Twitter: @fsukmodteam.

The FS-UK Modteam
(nishma, peterj, sam123, wizznall)
Twitter: @fsukmodteam