

Troubleshoot Custom Weapons/Attachments for Modders

You're working on a custom weapon/attachment and run into a specific issue you have no idea how to deal with?

Then this is for you, this is a collection of known common/uncommon problems you might run into while working on a custom weapon/attachment and how to deal with them.

Softlock

- [Description]

When your game freezes while trying to load an asset (for example trying to inspect a weapon or attach an attachment) its called a softlock.

- [What to do]

[Custom Weapon]

You try to preview your new custom weapon for the first time and it causes a softlock, those are the things you can do:

1. Check your default_blueprint. Are the attachment IDs correct? Are there attachments listed that don't even exist?
2. Check the BLT Log for any errors related to missing assets on your custom weapon
3. Check if the paths in your default_blueprint part assets (unit/object/mat_cfg) are all correct.
4. Use an elimination method in which you only try to preview the gun one attachment at a time and comment the rest out to find the attachment thats causing the issue. Then use step 3.

5. Check if you didn't forget to add any needed asset paths (unit/model/object/mat_cfg)

```
<!--<value_node value="wpn_fps_smg_example_ro"/>
<value_node value="wpn_fps_smg_example_fo"/>
<value_node value="wpn_fps_smg_example_mag"/>
<value_node value="wpn_fps_smg_example_barrel"/>
<value_node value="wpn_fps_smg_example_barrel_dummy"/>
<value_node value="wpn_fps_smg_example_irons"/>
<value_node value="wpn_fps_smg_example_bolt"/>
<value_node value="wpn_fps_smg_example_stock"/>
<value_node value="wpn_fps_smg_example_upper_rec"/>-->
<value_node value="wpn_fps_smg_example_trigger"/>
</default_blueprint>
```

[Custom Attachment]

You try to preview your new custom attachment for the first time and it causes a softlock, those are the things you can do:

1. Check the BLT Log for any errors related to missing assets on your custom attachment
2. Check if the paths in your part assets (unit/object/mat_cfg) are all correct.

Weapon Crash

• [Description]

Equipping or previewing a specific custom weapon crashes your game (can also apply to equipping or previewing an attachment).

• Crash 1

The crash looks something like this: (Note the `_add_part()` lib/managers/weaponfactorymanager)

Application has crashed: access violation

Callstack:

```
payday2_win32_release (???) ???
payday2_win32_release (???) ???
payday2_win32_release (???) ???
```

```
payday2_win32_release (???) ???
```

```
payday2_win32_release (???) ???
```

Current thread: Main

Script stack:

```
    _add_part() lib/managers/weaponfactorymanager.lua:743
```

```
    _add_part() lib/managers/weaponfactorymanager.lua:708
```

```
assemble_from_blueprint() lib/managers/weaponfactorymanager.lua:627
```

```
assemble_from_blueprint() @mods/WeaponLib/modules/different_akimbos/menuraycastweaponbase.lua:18
```

```
    clbk() lib/managers/menu/menuscenemanager.lua:2186
```

```
        lib/managers/dynamicresourcemanager.lua:220
```

• [What to do]

1. First find the attachment thats causing this issue (If you can't find it use an elimination method like on Softlock step 4)
2. Your based_on for the attachment is not the same as the .object/.unit files. (For example the luger magazine as based_on for magazine assets from the 5/7)

• Crash 2

The crash looks something like this:

PAYDAY 2 Crash log

Application has crashed: C++ exception

[string "lib/managers/weaponfactorymanager.lua"]:984: attempt to index a nil value

SCRIPT STACK

```
get_ammo_data_from_weapon() @mods/WeaponLib-
```

```
Release/modules/weaponfactorymanager_caching/weaponfactorymanager.lua:51
```

```
original() @mods/WeaponLib-Release/modules/general_fixes/newraycastweaponbase.lua:211
```

```
_update_stats_values() @mods/base/req/core/Hooks.lua:260
```

```
make_fakeweaponbase() @mods/More Weapon Stats/lua/blackmarketgui.lua:787
```

```
mws_get_popup_data() @mods/More Weapon Stats/lua/blackmarketgui.lua:614
```

```
original() @mods/More Weapon Stats/lua/blackmarketgui.lua:560
show_stats() @mods/base/req/core/Hooks.lua:260
on_slot_selected() lib/managers/menu/blackmarketgui.lua:6672
ddi_original_blackmarketgui_mousepressed() lib/managers/menu/blackmarketgui.lua:6282
mouse_pressed() @mods/Drag and Drop Inventory/blackmarketgui.lua:19
mouse_pressed() lib/managers/menu/menucomponentmanager.lua:1458
mouse_pressed() @mods/base/lua/MenuComponentManager.lua:24
mouse_pressed() lib/managers/menu/menurenderer.lua:368
mouse_press() lib/managers/menu/menuinput.lua:570
lib/managers/mousepointermanager.lua:341
```

Callstack:

```
    payday2_win32_release (???)   ???
    payday2_win32_release (???)   zip_get_name
    payday2_win32_release (???)   zip_get_name
```

• [What to do]

1. First find the attachment thats causing this issue (If you can't find it use an elimination method like on Softlock step 4) **(NOTE: this crash is caused by a stock type attachment)**
2. Your attachment tries to add a stock_adapter that doesn't exist on the gun, either add the stock_adapter to the gun or remove the line that tries to add the stock adapter.

Weapon Crash 2

• [Description]

Clicking on the weapon causes a crash. The crash looks something like this:

```
PAYDAY 2 Crash log
Application has crashed: C++ exception
[string "lib/managers/weaponfactorymanager.lua"]:1617: attempt to index a nil value

SCRIPT STACK
_check_sound_switch() lib/units/weapons/newraycastweaponbase.lua:694
```

```
original() @mods/WeaponLib-Release/modules/general_fixes/newraycastweaponbase.lua:83
_update_stats_values() @mods/base/req/core/Hooks.lua:260
make_fakeweaponbase() @mods/More Weapon Stats/lua/blackmarketgui.lua:787
mws_get_popup_data() @mods/More Weapon Stats/lua/blackmarketgui.lua:614
original() @mods/More Weapon Stats/lua/blackmarketgui.lua:560
show_stats() @mods/base/req/core/Hooks.lua:260
on_slot_selected() lib/managers/menu/blackmarketgui.lua:6672
ddi_original_blackmarketgui_mousepressed() lib/managers/menu/blackmarketgui.lua:6282
mouse_pressed() @mods/Drag and Drop Inventory/blackmarketgui.lua:19
mouse_pressed() lib/managers/menu/menucomponentmanager.lua:1458
mouse_pressed() @mods/base/lua/MenuComponentManager.lua:24
mouse_pressed() lib/managers/menu/menurenderer.lua:368
mouse_press() lib/managers/menu/menuinput.lua:570
lib/managers/mousepointermanager.lua:341
```

Callstack:

```
    payday2_win32_release (???)   ???
    payday2_win32_release (???)   zip_get_name
    payday2_win32_release (???)   zip_get_name
```

- [What to do]

1. You probably forgot to close one of your xml tags like `<Weapon>`, either try to find the unclosed tag manually or run it through an XML validator

Weapon Crash 3

- [Description]

Going into a heist with a custom weapon causes a crash. The crash looks something like this:

```
Application has crashed: C++ exception
[string "lib/units/weapons/newnpcraycastweaponbase.lua"]:19: attempt to index a nil value

SCRIPT STACK

spawn_unit() =[C]
```

```
add_unit_by_factory_blueprint() lib/units/beings/player/huskplayerinventory.lua:144
add_unit_by_factory_name() lib/units/beings/player/huskplayerinventory.lua:134
_perform_switch_equipped_weapon() @mods/Third Person/thirdperson.lua:199
synch_equipped_weapon() lib/units/beings/player/huskplayerinventory.lua:21
set_equipped_weapon() lib/network/handlers/unitnetworkhandler.lua:61
@mods/BeardLib/Hooks/NetworkHooks.lua:105
send_to_peers_synched() @mods/Third Person/lua/basenetworksession.lua:52
send() lib/network/base/extensions/networkbaseextension.lua:11
_send_equipped_weapon() lib/units/beings/player/playerinventory.lua:389
equip_selection() lib/units/beings/player/playerinventory.lua:344
original() lib/units/beings/player/states/playerstandard.lua:5185
_start_action_equip_weapon() @mods/base/req/core/Hooks.lua:260
_update_equip_weapon_timers() lib/units/beings/player/states/playerstandard.lua:3291
_update_check_actions() lib/units/beings/player/states/playerstandard.lua:883
original() lib/units/beings/player/states/playerstandard.lua:435
update() @mods/base/req/core/Hooks.lua:185
original() lib/units/beings/player/playermovement.lua:271
@mods/base/req/core/Hooks.lua:260
```

• [What to do]

1. Note the `_perform_switch_equipped_weapon() @mods/Third Person/thirdperson.lua` this crash is caused by using both WeaponLib and the ThirdPerson mod, to fix it either disable or remove the ThirdPerson mod. If this exact crash still keeps hapening afterwards contact me on Discord (Killerwolf#2636)

Weapon Crash 4

• [Description]

Trying to preview your custom weapon causes a crash. The crash looks something like this:

```
Application has crashed: access violation
```

```
-----
```

Callstack:

```
payday2_win32_release (???) ???  
payday2_win32_release (???) ???  
payday2_win32_release (???) ???  
payday2_win32_release (???) ???  
payday2_win32_release (???) ???  
payday2_win32_release (???) ???  
payday2_win32_release (???) zip_get_name  
payday2_win32_release (???) ???  
payday2_win32_release (???) ???  
payday2_win32_release (???) zip_get_name  
payday2_win32_release (???) ???
```

Current thread: Main

Script stack:

```
_spawn_and_link_unit() lib/managers/weaponfactorymanager.lua:894  
  _spawn() lib/managers/weaponfactorymanager.lua:791  
    complete_clbk() lib/managers/weaponfactorymanager.lua:803  
      load() lib/managers/dynamicresourcemanager.lua:123  
        _add_part() lib/managers/weaponfactorymanager.lua:768  
assemble_from_blueprint() lib/managers/weaponfactorymanager.lua:627  
assemble_from_blueprint() @mods/WeaponLib/modules/different_akimbos/menuraycastweaponbase.lua:18  
  spawn_weapon() @mods/WeaponLib/modules/different_akimbos/menuscenemanager.lua:43  
  spawn_item_weapon() @mods/WeaponLib/modules/different_akimbos/menuscenemanager.lua:51  
    done_cb() lib/managers/blackmarketmanager.lua:4663  
      func() lib/managers/blackmarketmanager.lua:2018  
call_next_update_functions() lib/setups/setup.lua:236  
  update() lib/setups/setup.lua:843  
  update() lib/setups/menusetup.lua:352  
  update() @mods/base/lua/MenuSetup.lua:5  
    core/lib/setups/coresetup.lua:557
```

- [What to do]

1. Note the `_spawn_and_link_unit()` `lib/managers/weaponfactorymanager.lua` this crash is caused by having a broken attachment model, either use the elimination method or look for suspiciously small attachment model files (less than 12kb for example). To fix it either replace that broken model or remove it.

Weapon Crash 5

- [Description]

Loading into a heist with your custom weapon causes a crash. The crash looks something like this:

```
Application has crashed: C++ exception
[string "--mods/BeardLib/Classes/Utils/Utils.lua..."]:142: attempt to index local 'fac_part' (a nil value)
```

- [What to do]

1. Note the `attempt to index local 'fac_part'` this crash is caused by having a caused by using non existing ID for `based_on`. You probably made a spelling mistake, fix that by using the exact ID from the `weaponfactorytweakdata` in your `based on`.

Weapon Crash 6

- [Description]

Trying to preview your custom weapon causes a crash. The crash looks something like this:

```
Application has crashed: access violation
```

```
-----
```

```
Callstack:
```

```
payday2_win32_release (???) ???
payday2_win32_release (???) ???
```



```
payday2_win32_release (???) ???
payday2_win32_release (???) ???
payday2_win32_release (???) ???
payday2_win32_release (???) ???
payday2_win32_release (???) ???
payday2_win32_release (???) ???
payday2_win32_release (???) ???
payday2_win32_release (???) ???
payday2_win32_release (???) ???
payday2_win32_release (???) zip_get_name
payday2_win32_release (???) zip_get_name
    ntdll (???) RtlUppcaseUnicodeChar
    ntdll (???) RtlRestoreLastWin32Error
    ??? (???) ???
    ??? (???) ???
    ??? (???) ???
    ??? (???) ???
    ??? (???) ???
    ??? (???) ???
    ??? (???) ???
    ??? (???) ???
    ??? (???) ???
    ??? (???) ???
    ??? (???) ???
    ??? (???) ???
    ??? (???) ???
    ??? (???) ???
    ??? (???) ???
    ??? (???) ???
    ??? (???) ???
    ??? (???) ???
```

Current thread: Main

Script stack:

```
    spawn_weapon() @mods/WeaponLib/modules/different_akimbos/menuscenemanager.lua:36
    spawn_item_weapon() @mods/WeaponLib/modules/different_akimbos/menuscenemanager.lua:51
```

```
done_cb() lib/managers/blackmarketmanager.lua:5121
func() lib/managers/blackmarketmanager.lua:2339
call_next_update_functions() lib/setups/setup.lua:252
original() lib/setups/setup.lua:871
update() @mods/base/req/core/Hooks.lua:188
update() lib/setups/menusetup.lua:358
update() @mods/base/lua/MenuSetup.lua:5
core/lib/setups/coresetup.lua:557
```

- [What to do]

1. This crash is caused by having a wrong root point in your main weapon model, say the object file has the root point (orientation_object) `rp_mauser1891` while the model itself still has the vanilla root point, in this case `rp_wpn_fps_snp_mosin`. To fix either replace the orientation_object in the object file with them model root point, or replace the model root point with the orientation_object from the object file.

Weapon Crash 7

- [Description]

Opening the black market causes a crash. The crash looks something like this:

```
Application has crashed: C++ exception
[string "lib/managers/menu/blackmarketgui.lua"]:13508: attempt to index a nil value
```

SCRIPT STACK

```
callback() lib/managers/menu/blackmarketgui.lua:13418
first_btn_callback() lib/managers/menu/blackmarketgui.lua:12656
press_first_btn() lib/managers/menu/blackmarketgui.lua:7089
mouse_double_click() lib/managers/menu/blackmarketgui.lua:6996
mouse_double_click() lib/managers/menu/menurenderer.lua:413
lib/managers/mousepointermanager.lua:381
```

Callstack:

```
payday2_win32_release (???) ???  
payday2_win32_release (???) ???  
payday2_win32_release (???) ???  
payday2_win32_release (???) zip_get_name  
ntdll (???) RtlAllocateHeap
```

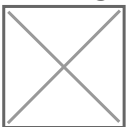
- [What to do]

1. This crash can be caused by having an inconsistent/non-existent GlobalValue in your xml.
For example finn.png finn3.png

Weapon Crash 8

- [Description]

Loading into a heist with a custom weapon causes a crash. The crash looks something like this:



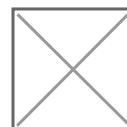
- [What to do]

1. This crash can be caused by badly written stance code (note the PVM mention in the crash


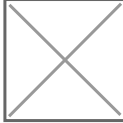
log). For example



2. The rotation here is missing the 4th value, it should instead look like this



3. A good way to avoid this is using the Copy to Xml button in the Perfect View Model UI (the button only copies the values to your clipboard, so you have to paste them manually in

the xml).  This is how a correct stance setup would look like after copying the
PVM values 

Custom Attachment Points Issues

- [Description]

Custom attachment points from your weapontweakdata don't have an effect ingame, i.e changing the values doesn't move them.

- [What to do]

1. Check if you weapontweakdata is hooked
2. Check if your hook has a unique name and isn't being overwritten by a post hook with the same name (this usually happens when copying files from another custom weapon and then forgetting to change stuff for the new weapon)
3. If all the above isn't the issue check if your weapons .unit and npc.unit have the correct values example:

```
<extensions>
<extension class="ScriptUnitData" name="unit_data" />
<extension name="base" class="NewRaycastWeaponBase" >
<var name="name_id" value="tti" /> <!-- value should be the same as your weapons ID -->
</extension>
</extensions>
```

Weapon disappears from your inventory

- [Description]

When you restart your game the custom weapon is gone from your inventory.

- [What to do]

1. A part defined in the `default_blueprint` is either not in the `uses_parts` or doesn't exist at all
-

Note:

This is a WIP page, more problems and solutions will be added over time. Everyone who knows a specific issue and how to deal with it is welcome to contribute.

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