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Subject: [SSGM 4.0 Plugin] Building Revival Console Commands v2.0

Posted by [iRANian](#) on Fri, 02 Aug 2013 17:22:49 GMT

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## BuildingRevivalConsoleCommands SSGM 4.0 plugin v2.0

This plugin adds console commands for reviving buildings to the FDS. There are console commands for every building and two special console commands to revive a building by preset name and by object ID. Reviving buildings on maps with multiple buildings of the same type (e.g. two Obelisk) is supported too. Note there are two issues with this plugin, an inconvenient one requiring clients to rejoin the server and a potential issue on servers or maps running special scripts/code on buildings (e.g. custom repair scripts). These issues are explained in the following paragraphs.

If during building revival after the building is restored the Ref is alive and harvester is dead a new harvester will be requested. All console commands except `ReviveBuildingByID` will revive the first dead building found of a type. If there are two Obelisks on the map the first dead one will be revived when these commands are executed. `ReviveBuildingByID` will revive a building by its ID so you can use it to decide what building to revive if there are multiple structures with the same preset name.

The plugin handles the Obelisk and AGT weapons correctly now (in v1.0 they were bugged). After reviving the building any object create hooks are executed for the building. You need to make sure the code on the server supports this properly. For example code that assumes a building only gets the object create hook called for it only once per level load might act up.

The building revival code does a bit of hackery to make sure the right scripts are attached to the building when it is revived (and hopefully in the right state). This might break special scripts on buildings like the building repair scripts on buildings on `C&C_Cairo` and custom code attaching scripts to buildings, beware.

**ON MAPS WITH SPECIAL REPAIR SCRIPTS ON BUILDINGS REVIVING A BUILDING WILL PROBABLY BREAK THE REPAIR SCRIPT. THIS HAPPENS ON `C&C_Cairo` FOR EXAMPLE.**

After reviving a building I've noticed the following bugs appearing on clients:

- 1.) If the building is destroyed again no death announcement is played.
- 2.) If the building is a production facility clients can't build from that facility anymore
- 3.) If the building is a Communication Centre which controls radar, the radar will stay off-line

These bugs go away after the client restarts his game. They happen because the client doesn't sync the 'is destroyed' setting for a building with the server after building revival (on the server the building is no longer destroyed but on clients it's still destroyed). Hopefully TT will add the following client-side fix I wrote to Scripts 4.0 patch 2:

[http://www.renegadeforums.com/index.php?t=msg&th=40362&start=0&rid=25967#msg\\_num\\_12](http://www.renegadeforums.com/index.php?t=msg&th=40362&start=0&rid=25967#msg_num_12)

All revive console commands except `ReviveBuildingByPreset` and `ReviveBuildingByID` might not be able to revive a building type or they might **REVIVE THE WRONG BUILDING TYPE** on

CUSTOM MAPS WITH REALLY NON-STANDARD BUILDING PRESET NAMES OR BUILDING TYPE SET ON BUILDING. If that's the case use ReviveBuildingByPreset or ReviveBuildingByID. I HAVEN'T SEEN THIS HAPPEN YET BUT IT IS A POSSIBILITY.

One way to get the object ID of a building is by opening the map in LevelEdit, checking the ID set on the building controller for that building.

The following console commands are added by this plugin:

REVIVEBUILDINGBYID <OBJECTID> - Revives a building by its object ID.

REVIVEBUILDINGBYPRESET <PRESET NAME> - Revives a building by its preset name.

REVIVEBAR - Revives the GDI Barracks.

REVIVEHON - Revives the Hand of Nod.

REVIVEGDIPP - Revives the GDI Power Plant.

REVIVENODPP - Revives the Nod Power Plant.

REVIVEGDICONYARD - Revives the GDI Construction Yard.

REVIVENODCONYARD - Revives the Nod Construction Yard.

REVIVEGDIREF - Revives the GDI Refinery.

REVIVENODREF - Revives the Nod Refinery.

REVIVEGDIREFBAY - Revives the GDI Repair Bay.

REVIVENODREFBAY - Revives the Nod Repair Bay.

REVIVEWF - Revives the GDI Weapons Factory.

REVIVEAIR - Revives the Nod Airstrip.

REVIVEGDICOMMCENTER - Revives the GDI Communications Center.

REVIVENODCOMMCENTER - Revives the Nod Communications Center.

REVIVEAGT - Revives the GDI Advanced Guard Tower.

REVIVEOB - Revives the Nod Obelisk.

REVIVENODSILO - Revives the Nod Tiberium Silo.

REVIVEGDISILO - Revives the GDI Tiberium Silo.

REVIVENODHELIPAD - Revives the Nod Helipad.

REVIVEGDIHELIPAD - Revives the GDI Helipad.

REVIVESHrine - Revives the Shrine of Nod.

To install place 'BuildingRevivalConsoleCommands.dll' in the root FDS folder and add an entry for it in SSGM.ini under the [Plugins] section.

You can contact me by PM'ing me on renegadeforums.com under the name "iRANian" or on the usual IRC servers under the nick "Iran".

### File Attachments

1) [BuildingRevivalConsoleCommands SSGM 4.0 Plugin 2.0.zip](#),  
downloaded 464 times

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Subject: Re: [SSGM 4.0 Plugin] Building Revival Console Commands v2.0  
Posted by [Gen\\_Blacky](#) on Sun, 12 Feb 2017 03:49:23 GMT

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Amusing dblaney1 has already made a proper update no need to work on this Iran.

Hey dblaney1, Iran said you made additions to this plugin can you post them? I was going to make a da game feature.

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Subject: Re: [SSGM 4.0 Plugin] Building Revival Console Commands v2.0  
Posted by [dblaney1](#) on Mon, 13 Feb 2017 04:31:46 GMT

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Yeah I just gotta clean it up a bit. Have a lot of commented out code in it thats from before 4.2 had the proper functions for reviving.

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Subject: Re: [SSGM 4.0 Plugin] Building Revival Console Commands v2.0  
Posted by [dblaney1](#) on Mon, 13 Feb 2017 05:32:09 GMT

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Ok here it is. This plugin also handles silos correctly as well.

Edit: Updated this post with the one I posted a few posts down.

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### File Attachments

- 1) [BuildingRevivalConsoleCommands.h](#), downloaded 242 times
  - 2) [BuildingRevivalConsoleCommands.cpp](#), downloaded 236 times
- 

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Subject: Re: [SSGM 4.0 Plugin] Building Revival Console Commands v2.0  
Posted by [jonwil](#) on Mon, 13 Feb 2017 08:14:09 GMT

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Here is a small update to the code.

Calls to Revive\_Building are replaced with calls to Restore\_Building (which is the correct engine call to use)

CommandREVIVEBAR and CommandREVIVEHON dont need to call

Set\_Can\_Generate\_Soldiers as SoldierFactoryGameObj::On\_Revived does that for you.

CommandREVIVEGDIPP and CommandREVIVENODPP are fixed to use Find\_Power\_Plant.

CommandREVIVEGDICY and CommandREVIVENODCY dont need to call Is\_Building\_Dead as BuildingGameObj::On\_Revived handles that all for you.

CommandREVIVENODSILO and CommandREVIVEGDISILO are fixed to not need the revived variable anymore.

CommandREVIVEAGT and CommandREVIVEOB are fixed to use Find\_Base\_Defense.

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## File Attachments

1) [BuildingRevivalConsoleCommands.cpp](#), downloaded 261 times

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Subject: Re: [SSGM 4.0 Plugin] Building Revival Console Commands v2.0

Posted by [dblaney1](#) on Mon, 13 Feb 2017 17:01:45 GMT

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jonwil wrote on Mon, 13 February 2017 01:14 Here is a small update to the code.

Calls to Revive\_Building are replaced with calls to Restore\_Building (which is the correct engine call to use)

CommandREVIVEBAR and CommandREVIVEHON dont need to call

Set\_Can\_Generate\_Soldiers as SoldierFactoryGameObj::On\_Revived does that for you.

CommandREVIVEGDIPP and CommandREVIVENODPP are fixed to use Find\_Power\_Plant.

CommandREVIVEGDICY and CommandREVIVENODCY dont need to call Is\_Building\_Dead as BuildingGameObj::On\_Revived handles that all for you.

CommandREVIVENODSILO and CommandREVIVEGDISILO are fixed to not need the revived variable anymore.

CommandREVIVEAGT and CommandREVIVEOB are fixed to use Find\_Base\_Defense.

The revived variable was there so that it didn't play the revive sound twice if there were two silos. I actually meant to remove the can generate soldier stuff. Forgot to remove that line. The powerplant was going through all the buildings as there are several maps with multiple powerplants. Thats why it was coded that way. Same for the base defense thing. There are maps out there with multiple Obelisks and AGTs.

Here is a slightly updated version with some of the unnecessary stuff removed using the correct Restore\_Building call.

## File Attachments

1) [BuildingRevivalConsoleCommands.h](#), downloaded 253 times

2) [BuildingRevivalConsoleCommands.cpp](#), downloaded 246 times

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Subject: Re: [SSGM 4.0 Plugin] Building Revival Console Commands v2.0

Posted by [iRANian](#) on Mon, 13 Feb 2017 17:46:48 GMT

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Thanks for the update people.

The functionality is really useful for moderators when a building is destroyed illegally.

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Subject: Re: [SSGM 4.0 Plugin] Building Revival Console Commands v2.0

Posted by [Gen\\_Blacky](#) on Mon, 13 Feb 2017 18:28:10 GMT

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Thanks guys I will post my addition when I get home from work.

iRANian wrote on Mon, 13 February 2017 10:46 Thanks for the update people.

The functionality is really useful for moderators when a building is destroyed illegally.

Yep RC has had a issue lately where people are planting nukes above the gdi base on under. Trying to provide them with the tools they need. Which led to work on all this stuff as of late.

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Subject: Re: [SSGM 4.0 Plugin] Building Revival Console Commands v2.0  
Posted by [dblankney1](#) on Mon, 13 Feb 2017 21:33:17 GMT

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Yeah this should work great for that. It plays a nice building repaired sound for both teams too.

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Subject: Re: [SSGM 4.0 Plugin] Building Revival Console Commands v2.0  
Posted by [Gen\\_Blacky](#) on Sat, 18 Feb 2017 01:49:46 GMT

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Just add to an existing da project. No reason to make it a game feature.

Added chat command use and you can use your bot to setaccesslevel

Added NavellFactory AirFactory Still need to add sounds and stuff. Does anyone have all building announcements sounds in strings handy?

Created Building Revive functions to stop code duplication

I was experiencing a weird problem where if a refinery gameobject was passed it would crash on Revive\_Building because of some reference to ScriptableGameObj Get\_Definition() it would crash on !obj->As\_BuildingGameObj(). But it seems to have fixed itself and not sure what was happening.

[https://youtu.be/Vn\\_LQ9fU9g8](https://youtu.be/Vn_LQ9fU9g8)

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## File Attachments

- 1) [BuildingRevival.cpp](#), downloaded 237 times
  - 2) [BuildingRevival.h](#), downloaded 223 times
- 

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Subject: Re: [SSGM 4.0 Plugin] Building Revival Console Commands v2.0  
Posted by [iRANian](#) on Sat, 18 Feb 2017 10:31:20 GMT

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You set the access level to NONE and added commands for reviving and destroying buildings, doesn't that mean everyone can execute those commands?

Good job with the code.

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Subject: Re: [SSGM 4.0 Plugin] Building Revival Console Commands v2.0

Posted by [Gen\\_Blacky](#) on Sat, 18 Feb 2017 11:08:06 GMT

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Yea, definitely want to set the accesslevel back to admin or something appropriate in an actual server.

Edit

There is a fatal flaw having a global variable name AccessLevel because it is Declared in DACHatCommandClass so it was renamed to ModLevel. lol

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Subject: Re: [SSGM 4.0 Plugin] Building Revival Console Commands v2.0

Posted by [dblaney1](#) on Tue, 21 Feb 2017 23:42:49 GMT

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How come the DA version you posted looks like its based on the old version of this plugin? It should only be calling Restore\_Building(obj) inside engine\_game to bring the buildings back to life. It doesn't need to do anything specific for each type of building.

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Subject: Re: [SSGM 4.0 Plugin] Building Revival Console Commands v2.0

Posted by [Gen\\_Blacky](#) on Wed, 22 Feb 2017 06:28:09 GMT

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Its a dup of Restore\_Building with extra bits. I only use the function Revive\_Building. We still want to set the building health. Turn the base power back on if it is a power plant. We want to apply damage to the building to force it to update. If you don't it will still look damaged until a player damage's the building.

Idk if their is a difference but Im still using 4.3 RC2 or what ever Revision 7103 is

```
// Restore building health
float max = Commands->Get_Max_Health(building);
Commands->Set_Health(building, max);
```

```
// Still do this to wake everything up.
// This is needed to update the state of a building from 'dead' to 'alive on the client
Commands->Apply_Damage(building, 1.0f, "Explosive", 0);
```

```
// If we're a Power Plant turn on base power
```

```
if (building->As_BuildingGameObj()->As_PowerPlantGameObj()) Power_Base(Team, true);
```

You want to do these 3 things still in addition to the scripts Restore\_Building

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Subject: Re: [SSGM 4.0 Plugin] Building Revival Console Commands v2.0

Posted by [jonwil](#) on Wed, 22 Feb 2017 10:15:05 GMT

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I can tell you that in 4.3 (all versions) you just need to call Restore\_Building or On\_Revived or whatever. You don't need to make any of those other calls as On\_Revived does it all (PowerPlantGameObj::On\_Revived brings the power back online for all buildings btw)

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Subject: Re: [SSGM 4.0 Plugin] Building Revival Console Commands v2.0

Posted by [dblanky1](#) on Wed, 22 Feb 2017 17:18:53 GMT

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Make sure your restore building in engine\_game reads as the following. It was changed between 4.1 and 4.2.

```
void SCRIPTS_API Restore_Building(GameObject* obj)
{
    if (!obj) return;
    BuildingGameObj *Building = obj->As_BuildingGameObj();
    if (Building)
    {
        Building->On_Revived();
    }
}
```

That should be the only thing you need for any version of 4.2 and newer. I believe that change was missed in the recent versions of DA for some odd reason. I had to update it on my end a while back.

You should also swap out all the Create\_2D\_WAV\_Sound\_Team with Create\_2D\_WAV\_Sound\_Team\_Dialog so that it plays on the dialog volume instead of the sound effects volume setting in the plugin.

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Subject: Re: [SSGM 4.0 Plugin] Building Revival Console Commands v2.0  
Posted by [Gen\\_Blacky](#) on Wed, 22 Feb 2017 19:11:26 GMT  
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Ah yea mine it out of date. Still doing it the old way Instead of calling On\_Revived.

```
void SCRIPTS_API Restore_Building(GameObject* obj)
{
    if (!obj) return;

    BuildingGameObj* building = obj->As_BuildingGameObj();
    if (!building || !building->Is_Destroyed())
        return;

    building->Set_Is_Destroyed(false);

    BaseControllerClass* base = BaseControllerClass::Find_Base(Get_Object_Type(building));
    if (base)
    {
        if (building->As_SoldierFactoryGameObj())
            base->Set_Can_Generate_Soldiers(true);

        if (building->As_VehicleFactoryGameObj())
            base->Set_Can_Generate_Vehicles(true);

        base->Set_Object_Dirty_Bit(NetworkObjectClass::BIT_RARE, true);
    }
}
```

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Subject: Re: [SSGM 4.0 Plugin] Building Revival Console Commands v2.0  
Posted by [dblaney1](#) on Wed, 22 Feb 2017 20:40:27 GMT  
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Gen\_Blacky wrote on Wed, 22 February 2017 12:11Ah yea mine it out of date. Still doing it the old way Instead of calling On\_Revived.

```
void SCRIPTS_API Restore_Building(GameObject* obj)
{
    if (!obj) return;

    BuildingGameObj* building = obj->As_BuildingGameObj();
    if (!building || !building->Is_Destroyed())
        return;

    building->Set_Is_Destroyed(false);

    BaseControllerClass* base = BaseControllerClass::Find_Base(Get_Object_Type(building));
```



```
if (base)
{
    if (building->As_SoldierFactoryGameObj())
        base->Set_Can_Generate_Soldiers(true);

    if (building->As_VehicleFactoryGameObj())
        base->Set_Can_Generate_Vehicles(true);

    base->Set_Object_Dirty_Bit(NetworkObjectClass::BIT_RARE, true);
}
}
```

Post an updated one when you get a chance please. With the restore building fix and playing the sounds on the dialog channel.

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Subject: Re: [SSGM 4.0 Plugin] Building Revival Console Commands v2.0

Posted by [Gen\\_Blacky](#) on Sat, 25 Feb 2017 05:28:39 GMT

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Added Helipad Repair Sounds

Added Repair Facility Repair Sounds

Do On\_Revive if Scripts 4.2 RC1 (6983) and up

Play Create\_2D\_WAV\_Sound\_Team\_Dialog if Scripts 4.3 RC2 (7455) and up

SSGM Log Message for Building Revived

Also these fds commands in DA.dll that already call On\_Revive.

revivebuildingbyid <id> - Revives a building by object ID. Host only.

revivebuildingbyname <team> <name> - Revives all buildings whose translated or preset name matches the given wildcard. Host only.

revivebuildingbypreset <team> <preset name> - Revives all buildings with the given preset name. Host only.

revivebuildingbytype <team> <type> - Revives all buildings of the given type. Host only. (See BuildingConstants for types)

#### File Attachments

1) [BuildingRevival.h](#), downloaded 222 times

2) [BuildingRevival.cpp](#), downloaded 220 times

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Subject: Re: [SSGM 4.0 Plugin] Building Revival Console Commands v2.0

Posted by [iRANian](#) on Thu, 27 Apr 2017 17:27:30 GMT

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Obelisk after reviving doesn't have his weapon

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Subject: Re: [SSGM 4.0 Plugin] Building Revival Console Commands v2.0  
Posted by [dblankey1](#) on Thu, 27 Apr 2017 17:37:17 GMT

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If you have the fully updated 4.3 code it works properly. Make sure you have it. At least with the version i posted it will work.

[http://www.renegadeforums.com/index.php?t=msg&goto=492301&#msg\\_num\\_4](http://www.renegadeforums.com/index.php?t=msg&goto=492301&#msg_num_4)

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Subject: Re: [SSGM 4.0 Plugin] Building Revival Console Commands v2.0  
Posted by [iRANian](#) on Fri, 28 Apr 2017 06:06:00 GMT

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Well with Gen\_Blacky's version it didn't and I don't see much of a difference with your yours. Adding Attach\_Script\_Once() ought to fix the issue.

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Subject: Re: [SSGM 4.0 Plugin] Building Revival Console Commands v2.0  
Posted by [iRANian](#) on Sun, 30 Apr 2017 12:16:22 GMT

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I can't get it fixed myself either

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Subject: Re: [SSGM 4.0 Plugin] Building Revival Console Commands v2.0  
Posted by [Whitedragon](#) on Sun, 30 Apr 2017 13:44:32 GMT

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Nod\_Obelisk\_CnC and GDI\_AGT have code that recreate the weapons when the building is revived. Does it work correctly on a stock map using the revive commands built into TT?

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Subject: Re: [SSGM 4.0 Plugin] Building Revival Console Commands v2.0  
Posted by [Gen\\_Blacky](#) on Sun, 30 Apr 2017 20:01:50 GMT

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It works calling On\_Revived. Mine is not doing anything differently. Only to check if you are using scripts rev 6983 or higher before calling On\_Revived()

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Subject: Re: [SSGM 4.0 Plugin] Building Revival Console Commands v2.0

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Posted by [iRANian](#) on Mon, 01 May 2017 15:59:06 GMT

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I used the code that Blacky posted. AGT is revived but its guns aren't.

How can I tell what revision is running? I downloaded DA 1.9 and it shows version 4.3 but not revision..

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