

Physit!

A Powertool for 3dsMax

..to automate production of PhysX data for use in T3D.

Initial release for 3dsMax2008 and 2009..with pending support for max9, 2010 and newer versions.

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For Version 0.98 | Written by: eb

Preface:

Physit! has had an extensive error check and push-to-guide-you system implemented.
What does that mean ?..

If you try to use a button in a wrong manner, the panel will give you an error popup with an explanation of what you should be doing with that function. This is implemented because I believe it is proper to inform and guide you through the processes if you make a mistake. Plain and simple. ;) ..now, I'll be honest here.. I may not always be 100% correct on informing you on what you are trying to achieve but I planned out through the development cycle to leave many many doors open to allow powerusers the flexibility they desire. - If something is bugged or could just be better..email me. I'll chat with you about it and we'll see what comes out of the chat..perhaps I'll add another panel specifically for your pipeline theory...etc etc.

INFO: As for the future of Physit!, I would like to plan to support any features that T3D supports by default with 3dsMax exporting. As of March9th, 2010.. ragdolls may go into the engine.

If so, Physit! will have a ragdoll panel added. ;)

Physit! ...a poweruser's powertool for 3dsMax, PhysX and T3D pipelines !

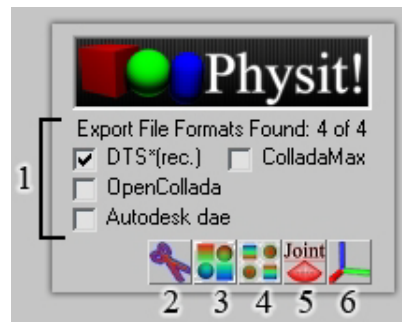
(Please be sure to read the last page for important information.)

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1. Top of the Panel

1. Format finder and selector
2. mesh_to_delete manipulator
3. Group a _pxactor into an objectset
4. Ungroup a _pxactor objectset
5. Add a Joint to the scene
6. PivotMaster



“Top of the Panel” Explanations!

[This section has file format choices and general action buttons.]

1. Format finder searches for the listed plug-in-exporters when Physit! is started. If the format’s selection box is usable then you have that specific exporter installed. Currently there is a small system in place to make sure there is a format always selected for use. When Physit! starts, it will automatically select the top available exporter from it’s preferred list order:
 - ➔ 1. DTS, 2. OpenCollada, 3. Autodesk Collada, 4. ColladaMax.Example: if DTS is not available but OpenCollada is, then OpenCollada will be the default chosen exporter at start. If you try to deselect an exporter, the tool will automatically assume you want the suggested exporter type and select the highest preferred exporter.
2. (MTD) mesh_to_delete manipulator is a bit tough to explain without a visual cue. Here is my best example for you:
 - If you have a “complex breakable” or “joint easy-fier” setup, after the visual meshes (not the actor primitives) are exported, Physit! will create a copy of your visual mesh, then name every mesh within that copy set to “mesh_to_delete” and group them into an objectset named “mesh_to_delete”. **This set is great to have around after visual mesh exporting because

then you can adjust the actors to be sure they truly represent your model's shape/volume/geometrical collision factors. I'll give as good example after explaining the button's use:

- Click the button: selects all groups and objects named "mesh_to_delete"
- Shift and click: breaks the "mesh_to_delete" grouping if it exists.
- Ctrl+click: groups all of the "mesh_to_delete" meshes for easy manipulation.

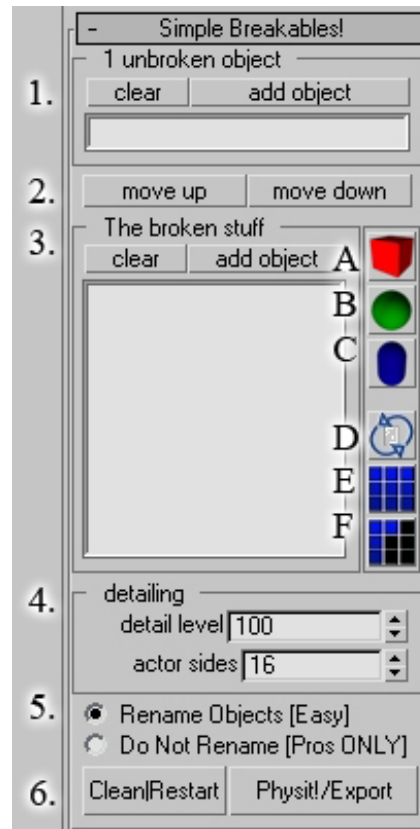
Example: If you make a building, Physit! will export the visual mesh and then create simple primitives with an appropriate naming structure. However, who would want a building that has all box collision? ..no one would. So with the help of "Mesh_to_delete" controlling and the next buttons called "group pxactor" and "ungroup pxactor" you can turn a several hour, nail biting-then-recheck your work process, ..into nearly a 5 minute breeze(I suppose 10 minutes if you're not a pro!).

NOTE: "mesh_to_delete" objects are deleted prior export from the panels that create the meshes. They are also not selectable with Physit!'s "select all" or "invert selection" buttons.

3. Group _pxactor!: Only works if it detects 1 mesh with a _pxactor suffix.
 - This button will group the selected objects and then inherit the _pxactor's Pivot and user defined properties. The _pxactor used in the grouping will receive the suffix _pxgr as so the ungroup button can find the mesh without issue. (see ungroup button below)
 - This all means: you only need to group the actor with other objects using this button and your other worries are far removed: NO updating scene info, NO transferring user properties, NO adding the shape back into simulation, NO checking pivots..etc etc.
 - Conjecture: Basically, these buttons rock when used with the mesh_to_delete theory.
 4. Ungroup _pxactor!: Only works if there is a group with a the name suffix of _pxactor. This button will break the group and allow the initial _pxactor to re-inherit it's old name. This allows you to not worry about any missing actors or naming goofups. Group, ungroup,group,ungroup,..the names are safe as long as there is no loose geometry hanging around at export!
 5. Adds a joint into your scene..any joints added by this button can be handled by the lower portion of the "joint easy-fier" section. ..or through the modifier panel.
 6. PivotMaster!: Similar to the Pivot Hero in the Doit! tool. However, with PhysX exporting we have 1 more thing to worry about and that is ZERO'ing out pivots. Kinetic actors and simple breakables all use the ZERO'd out pivots as this is what PhysX expects within T3D. This is too much to explain in print when the video series can cover this in depth with concise visual cues.
 - click: turns on pivot manipulation
 - shift+click: pivot to object center
 - ctrl+click: pivot to object center and object moved to house @ 0,0,0
 - *** alt+click: Pivot to 0,0,0 (this will be used often by those who edit and tweak their work.)
- END SECTION#1**

2. Simple Breakables!

1. ONE Unbroken Object
2. Move to list buttons
3. The Broken Stuff
 - A.Red:Box
 - B.Green:Sphere
 - C.Blue:Capsule
 - D.Refresh lists (for name changes)
 - E.Select All (multi-use)
 - F. Select Invert
4. Detailing
5. Object name handling
6. Clean|Restart *and* Physit!/Export



“Simple Breakables!” Explanations!

[This section allows you to make fast, yet basic breakable objects.]

1. ONE Unbroken Object:

You can add 1 mesh to this list. This mesh will be the ‘initial visible mesh in game’ until it is “broken”.

- **clear**: clears the object from the list.

- **add object**: allows you to add the selected object to the list to become the unbroken object.

2. Move to list buttons: these buttons allow easy movement from 1 list to the other.

3. This is the broken object list.

- **clear**: clears the object from the list.

- **add object**: allows you to add the selected object(s) to the list to become the broken objects.

A. Red:Box = a red wireframe forces actors of box type during actor creation.	B. Green:Sphere = a green wireframe forces actors of sphere type during actor creation.	C. Blue:Capsule = a blue wireframe forces actors of capsule type during actor creation.
D. Refresh object lists. (Handy for Pro exporting when naming conventions are wrongly set.)	E. Click: to select All Objects or Shift+click to select geometry only.	F. Selects Invert of scene selection

4. Detail Level: Normally used for LOD with regular shape objects, this is currently(as of March9,2010) a remnant that the DTS system expects to read from the shapes. So currently, since this has no bearing on LOD, leaving this alone is fine. I put this in the tool just in case LOD or something similar can use this detail level setting.

Actor Sides: This was added during the start of Physit1 development before I realized that T3D forces poly counts to PhysX collision volumes..thereby making this setting useless for T3D (after March9,2010..this could change.) The best use of this feature is in large max scene to keep you scene poly count lower for better rendering performance during your work. (Leaving this at 16 is ok for largish scenes whereas in huge scenes, you may want to set this to 10 or so)

5. Rename Objects(easy): This forces Physit! to rename your scene meshes to avoid any naming convention conflixtions that may confuse a lesser experienced user.

Do Not Rename Objects(Pros ONLY): This stops Physit! from forcing names onto your shapes..this is usefull if you need to hide meshes by code or keep track of a certain section while using a specifically set name. Yet this button checks for name convention issues prior to allowing Pros to proceed in this manner.

Example: Meshes can not end in numerics prior to a pro export..as we append object names with detail levels...hence 4 objects with 4 detail levels will cause conflicts with the panel. So be sure your object names end with a letter. *“Board1293b” is acceptable while “Board1293” is not.*

6. Clean|Restart: Once you have exported a model fro this panel, you must click this button to clean memory and reset the panel for it's next use of this section.

Physit!/Export: After your model is properly setup, you can allow Physit! to do all of the “leg-work” for you. Don't worry if you forgot to set wireframe colors for coordinating physics primitives to each mesh..you'll be notified and asked whether or not the objects should receive box or spheres since they are the most widely used. ;) ..if you don't like that then you can replace that primitive, add it to the sim. And re-export through the control panel section.

Physit! has the capability to work with and around nearly any creative idea you may have! You'll see soon enough!

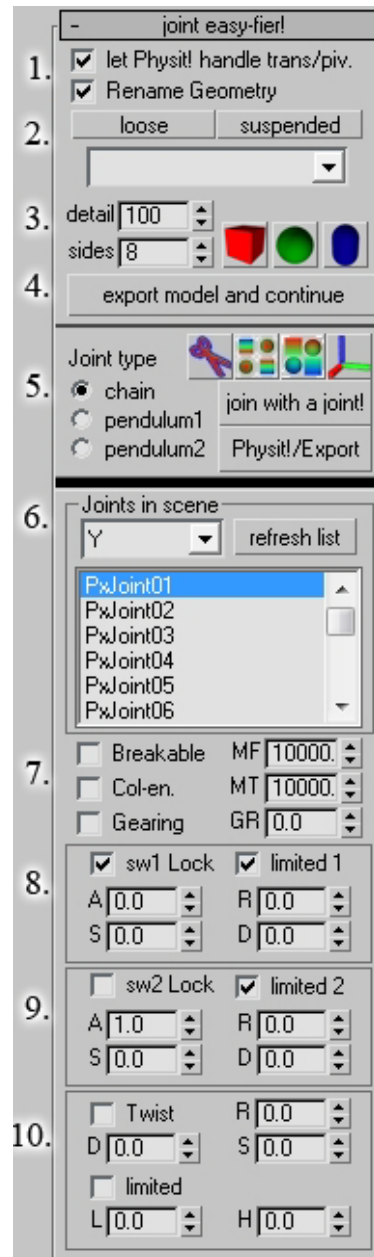
-- END SECTION#2

3. Joint Easy-fier!

[I'll split this panel into sections for these docs...]

1. Transform/Pivot Handling
Rename Geometry ?
2. Loose,Suspended & Listing
3. Detail, Sides Count
Red:Box
Green:Sphere
Blue:Capsule
4. Export Model and continue process!
5. Joint type selector
 - MTD,GroupPxActor,UngroupPxActor,
 - PivotMaster.
 - Join with a Joint
 - Physit!/Export
6. Joints In Scene (See note below)
7. Breakable,Col-en.,Gearing,Max Force,
Max Torque,Gear Ratio
8. Joint Swing 1 section
9. Joint Swing 2 section
10. Joint Twist Section

NOTE: Sections #6 through #10 are actually a general joint manager section stuck into the joint easy-fier panel. See videos for explanations with visual cues.



“Joint Easy-fier!” Explanations!

[This section allows you to make fast, joint based objects. Chains/Hinges/Pendulums]

****NOTE:** While using this panel's export option you must know that any mesh that has their transform set to 0,0,0 will be forced a kinematic actor. Read #2 below.

1. Let Physit! handle trans/piv. : For some setups/exports you will want to control your object transforms/pivots. For other exports, you can let Physit! do the work...isn't it nice to have options ?
 - If this is checked, Physit! will control them, if unchecked..you will control them.
Rename Geometry: If checked, Physit! will handle your geometry names if unchecked, your names will remain. This is the same as the Simple Breakable Panel's rename option [for Pros Only].

2. Loose, Suspended and the list they control:

- This set makes hinged doors, hanging chains and other things that are suspended, very easy to create. You can make a hanging chain by modeling the meshes, and then selecting the one you want "suspended"..and click the "suspended" button. The object name will be added to the list. If you made a mistake, you can simply click "Loose" to free any objects from the list.
- Here's what happens: Any object that is "suspended" has their transform placed to 0,0,0, thereby causing the exporting process to be notified that the object is supposed to be kinematic, which it is 99.999% of the time.(It assumes 100%.) So keep all transforms.pivots away from 0,0,0 when using the Joint Easy-fier unless you prefer they become kinematic during export using this section's Physit!/Export button.
- The list in this section basically holds the suspended items in a list.

3. Detail Level: Normally used for LOD with regular shape objects, this is currently(as of March9,2010) a remnant that the DTS system expects to read from the shapes. So currently, since this has no bearing on LOD, leaving this alone is fine. I put this in the tool just in case LOD or something similar can use this detail level setting.

Actor Sides: This was added during the start of Physit1 development before I realized that T3D forces poly counts to PhysX collision volumes..thereby making this setting useless for T3D (after March9,2010..this could change.) The best use of this feature is in large max scene to keep you scene poly count lower for better rendering performance during your work. (Leaving this at 16 is ok for largish scenes whereas in huge scenes, you may want to set this to 10 or so)

<p>A. Red:Box = a red wireframe forces actors of box type during actor creation.</p>	<p>B. Green:Sphere = a green wireframe forces actors of sphere type during actor creation.</p>	<p>C. Blue:Capsule = a blue wireframe forces actors of capsule type during actor creation.</p>
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- 4. Export Model and continue:** This button exports your dts/dae with the settings described in 1 through 3 above.
- 5. Joint Type:** Sets the joint type..Chain = joint center(pivot location) | Pendulum1 = body0 pivot | Pendulum2 = Body1 pivot. The Body0 and Body1 are respectively the first and then second meshes you select before using the "Joint With Joint" button. (this section will autoupdate to the selected Joint setting when 1 joint is selected from the list in section #6.)
MTD: Mesh_to_Delete, see 1.2 as in section 1, #2 of this doc.
ungroup pxactor: see 1.4 as in section 1, #4 of this doc.
group pxactor: see 1.3 as in section 1, #3 of this doc.
Pivot Master: see 1.6 as in section 1, #6 of this doc.

Joint With a Joint: select 2 actors and then click this to joint them! The first selected becomes body0 and the second selected becomes body1. (see physx docs)

Physit!/Export: This button completes processing and setup of objects created with easy jointifier
REMEMBER: any object with it's trans./piv. @ 0,0,0 will be forced to kinetic ! So stay away from 0,0,0 unless you want that to happen or Physit! specifies that location!

6. Joints in scene: [A general Joint manager panel from #6 through #10]

The dropdown menu with "X,-X,Y,-Y,Z,-Z" will turn any selected joint in the scene to face that direction. Example: hanging chains use -Z. You won't always need to set the joint's facing direction.
Refresh List Button: This button will grab the name of every Joint in the scene and add it to the list below the button.

- When you select a joint from the list, the joint's settings will get forced into the panel's sections 7 through 10. Give it a try!

- If you have more than 1 joint selected, you can force changes to all of those joints by changing any setting in sections 7 through 10 of this panel section.

7. Using Sections 7 through 10 may be tricky until you learn how the settings are handled. You need to select a joint from the list to update the panel to it's settings, 1 joint at a time. THEN you can change the joints settings without issue. If you use the panel without selecting a joint using the list, then you may have sporadic results unless you're adapted to watching your settings and verifying changes. Let's go on with the panel now...

Breakable: Breakable or not. You should verify the change if you didn't use the Joint list to select the joint being edited!

Col-en.: Collision enabled or not. You should verify the change if you didn't use the Joint list to select the joint being edited!

Gearing: Gearing enabled or not. You should verify the change if you didn't use the Joint list to select the joint being edited!

MF: Max force (see physx docs)

MT: Max Torque (see physx docs)

GR: Gear Ratio (see physx docs)

8. Swing 1 settings for joints: (see PhysX Plugin Docs)

- locked ?

- limited ?

A: Angle

R:Restitution

S:Spring

D:Dampen

9. Swing 2 settings for joints: (see PhysX Plugin Docs)

- locked ?

- limited ?

A: Angle

R:Restitution

S:Spring

D:Dampen

10. Twist settings for joints : (see PhysX Plugin Docs)

- Twist on/off ?

D:Dampen

R:Restitution

S:Spring

Limited ?

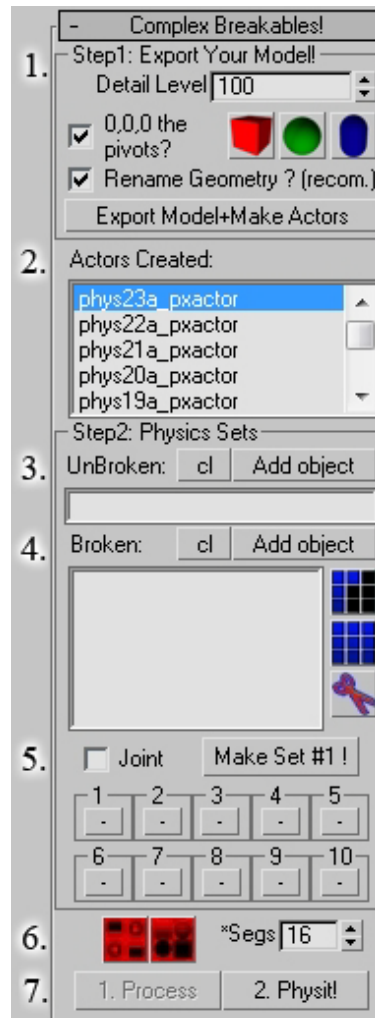
- Low / High

-- END SECTION#3

4. Complex Breakables! (this panel can be used with panel #5)

1. Detail Level
 - 0,0,0
 - Rename Geometry?
 - Red:Box
 - Green:Sphere
 - Blue:Capsule
 - Export Model + Make Actors
2. Actors Created
3. Set Making: Unbroken
4. Set Making: Broken
 - Invert Selection
 - Select All
 - MTD
5. Set Making:
 - Make sets
 - joint ?
 - set selectors
6. UnGroup Pxactor
 - Group Pxactor
 - Segs (Sides)
7. Export processing!
 - 1.Process
 - 2. Physit!

See videos for a long winded explanation of this sections power.



“Complex Breakables!” Explanations!

[This section allows you to process complex breakables with ease while keeping the scene highly organized.]

1. Detail: see section 3.3 of this doc

0,0,0 the pivots: sometimes you will want Physit! to handle the pivots, sometimes you will want to handle them. You would leave this “on” for buildings and other general complex breakables.

Rename Geometry: see section 3.1 of this doc

Red,Green,Blue..see section 3.3 of this doc

Export Models + Make Actors: This exports your model, creates an MTD set (mesh_to_delete, see section 1.2), and creates basic actor primitives.

2. **Actors Created:** This is the list of primitives created after the model export process. If you select a name in the list, the viewport will zoom the extents of that object and select it as well.
 - As the listed objects are moved into sets, they are removed from this list so that you can track what has been utilized.

3. **Unbroken:** 1 unbroken object per set! Add a selected object to the list. Cl = clear list

4. **Broken:** Broken objects. Add object(s) to the list. Cl = clear list
 - Select Invert:** see section 2.3 of this doc
 - Select All:** see section 2.3 of this doc
 - MTD:** see section 1.2 of this doc

5. **“Make Set #N” button:** after 1 unbroken and at least 1 broken object has been added to the respective lists, you can click “make set#n” to create a set of the objects. If you use the Joint checkbox, the set will have a joint set to use(it is recommended that the joint remain breakable unless you’re experienced or curious).

Joint checkbox: If marked, it will cause a set to be affected by a joint.

buttons 1 through 10: These buttons control the sets you created..call it super organized and powerful!

 - If a set has been made without a joint, that set button # will have an X.
 - If a set has been made with a joint, that set button will have a J. (See section 5 of this doc for more details on this)
 - shift+click a set button, the unbroken object will be selected and zoomed
 - ctrl+click a set button, the broken object will be selected and zoomed
 - click the button and the entire set will be selected and zoomed

[This allows you to manage complex scenes with ease. See section5 for more information on more power in this same flavor!]

6. **Group Pactor:** see section 1.3 of this doc (this button is frozen until the scene is processed) (see #7)
UnGroup Pactor: see section 1.4 of this doc(this button is frozen until the scene is processed)(see #7)
 - Here’s why they’re frozen until the scene is processed:
 You should process the scenes sets before creating actor groups, otherwise the panel will be confused with what to do with a group before processing as it will want to define the mesh names to the userproperties of the unbroken object or Joint...and that is not a good thing since you need to have 1 actor per joint or 1 group perjoint and to do what I just instructed you to avoid, would cause this to fall out of balance and break your scene!
 - **BASICALLY: PROCESS THE SETS THEN MAKE GROUPS FROM ACTORS!** to avoid issues! (..see videos)

Segs/Sides: See section 3.3 of this doc, Actor Sides

7. The buttons that bring this panel together are:
 - **“1. Process”:** After creating sets or not creating sets...etc..(however you choose to use the panel) You would use this to process sets for breakable objects/Joints with objects to show.
 - **“2. Physit!”:** Competes and processes the XML export for the Physics information.

-- **END SECTION#4**

5. Joints for Complex Breakables! (this panel is mainly used with panel #4)

1. F: MaxForce
T:MaxTorque
G:GearRatio
Breakable ?
Collision ?
Gearing ?
2. Joint Type:
 - Joint Center: (Chain)
 - Body0: (Pendulum)
 - Body1: (Pendulum)
3. Complex Breakable Joint management
4. Joints Swing1
5. Joints Swing1
6. Joints Twist

- See videos for a long winded explanation of this section used with the complex breakables section.

- Joints for Complex Breakables!

1. F 10.0 Breakable ?
T 10.0 Collision ?
G 0.0 Gearing ?
Attach point:
2. Joint Center (default)
3. x> + J1
x> +
x> + J2
x> +
x> + J3
x> +
x> + J4
x> +
x> + J5
x> +
x> + J6
x> +
x> + J7
x> +
x> + J8
x> +
x> + J9
x> +
x> + J10
x> +
4. Swing 1
 A 0.0 S 0.0
 R 0.0 D 0.0
5. Swing 2
 A 0.0 S 0.0
 R 0.0 D 0.0
6. Twist
 R 0.0 S 0.0
D 0.0
 L 0.0 H 0.0

“Joints for Complex Breakables!” Explanations!

[This section helps you to process complex breakables with Joints, while keeping the scene highly organized.]

1. F: Max Force (see PhysX plugin docs)
T: Max Torque (see PhysX plugin docs)
G: Gear Ratio (see PhysX plugin docs)

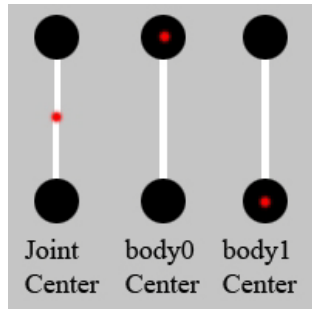
2. Joint linkage...

Joint Center(chains)

Body0(pendulum) [Pendulum is a suggestion to generate a mental association of Joint basics]

Body1(pendulum) [Pendulum is a suggestion to generate a mental association of Joint basics]

Example Image of basic idea: [Please note that Joints and bodies are controlled by their pivot location & not the body center or joint center as the plugin panel suggests. This image is merely to suggest the way that Joints could be thought of without moving the pivot from the object's center of volume. Don't limit your creativity because some plugin writer doesn't understand how to properly explain the functions they hook to the GUI.]



(Remember this image is frivolous and for basic concept.)

3. **Complex Breakable Joint Management:**

- If a set has a joint, you can press J1 to select the joint and force this panel's sections to update to that joint's settings...then you can proceed to edit the settings. It is not suggested that you edit joint settings without first having the panel updated via the "J#" buttons or by use of the JointsEasy-fier joint list and that specific joint settings panel settings. To explain the gui...

- "J#" selects the joint associated to that specific set #, If set3 has a joint, then J3 Should be used.
- "x>" clears the neighboring joint body slot
- "+" Adds the selected object to that joint body connection
- Pressing a button with an object name will cause the object to be selected in viewport.

Here is how the Set panel and this joint panel work to organize your scene:

- Set button click: select the set
- Set button Shift+Click: select the unbroken object
- Set button Ctrl+Click: select the broken object(s)
- J# button, select the joint
- Joint body0 button, selects the body0 of that set's joint
- Joint body1 button, selects the body1 of that set's joint

This will allow you to manage a huge scene with precision and speed.

My apologies that I push you towards the PhysX Docs for this portion, but the concepts are simple. You should read the PhysX docs anyways. .seriously...it'll take you a few minutes. In fact, the PhysX Plugin docs are shorter than this doc! In reality, common-sense can lead you through this portion.

4. Joint Swing1:

- A:Angle (see PhysX Plugin Doc)
- R:Restitution (see PhysX Plugin Doc)
- S:Spring (see PhysX Plugin Doc)
- D:Dampening (see PhysX Plugin Doc)

5. Joint Swing2:

- A:Angle (see PhysX Plugin Doc)
- R:Restitution (see PhysX Plugin Doc)
- S:Spring (see PhysX Plugin Doc)
- D:Dampening (see PhysX Plugin Doc)

6. Joint Twist:

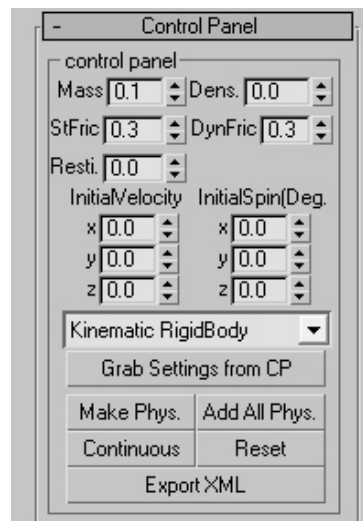
- Twist on/off? (see PhysX Plugin Doc)
 - R:Restitution (see PhysX Plugin Doc)
 - S:Spring (see PhysX Plugin Doc)
 - D:Dampening (see PhysX Plugin Doc)
 - Limited ? (see PhysX Plugin Doc)
 - H:High (see PhysX Plugin Doc)
 - L:Low (see PhysX Plugin Doc)
- END SECTION#5**

6. Control Panel

-This Control Panel is a 'rewire' of the 3dsMax utility panel PhysX plugin control panel.

-You will find most if not all of the Plugin control panel settings here.

(As of version 0.98 of Physit!, most settings are found here.)



“Control Panel” Explanations!

To use this panel properly, please select 1 object and then click “Grab settings from CP”..then alter settings as you see fit as long as you still have the object selected. You can use this panel with N objects selected..just be sure you understand how to verify what is being pushed to those objects. The videos can help you on this.

Mass: Object Mass

Dens: Object Density

StFric: Static friction

DynFric: Dynamic Friction

Resti: Restitution

Initial Velocity XYZ

Initial Spin XYZ

Grab Settings From CP: Select 1 object and then use this button to update the control panel settings to that of the selected objects, then you can proceed to edit that object’s settings. Etc etc

Make Phys.: Make into a phys Shape for simulation use

Add All Phys.: add shapes and/or refresh sim scene to use updated settings

Continuous: runs simulation continuously or until the objects sleep

Reset: Resets simulation (you can use this button in Physit! to reset the scene while continuous is running)

Export XML: T3D uses PhysX XML exports..so this is a way to get that file if you have a custom workflow at hand.

NOTES: **T3D seems to ignore velocity and spin as of T3D Beta1.1.** Other settings may also be ignored by T3D**

-- *END SECTION#6*

7. PSDK settings

-This Control Panel is a ‘rewire’ of the 3dsMax utility panel PhysX plugin PSDK settings panel.

-You will find most if not all of the Plugin psdk settings here.

(As of version 0.98 of Physit!, all psdk settings from the px plugin are found here.)



“PSDK” Explanations!

[PhysX sdk parameters panel rewired to work in Physit!]

Please read the PhysX 3dsMax plugin docs for information on these settings..

Skin Width: Skin Width	Default: 0.025
sleep lin vel: Sleep linear velocity	Default: 0.15
bounce thresh.: Bounce Threshold	Default: - 2.0
sleep ang vel: Sleep Angle Velocity	Default: 0.14
st fric scale: Static friction scale	Default: 1.0
dyn fric scale: Dynamic Friction Scale	Default: 1.0
Max ang vel: Max Angle Velocity	Default: 7.0
gravity magni.: Gravity Magnitude	Default: -9.81

Gravity Axis: X Y Z (defaults to Z)

Update These settings : Grabs the settings from the utility panel’s psdk settings. You can update Physit! then change the settings to your desired simulation strengths.

eb@T3D : This forces my ‘normally used’ settings.. a little different than the default settings.

! push default settings ! : Ever change the psdk settings and then not know what they were set to by default ? ..well, it happened to me quite often..so here it is for all of us to use! This will push the default psdk panel settings into use. Effectively resetting the parameters.

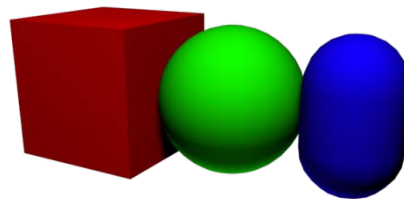
-- End Section #7

8. About Physit!

Physit! was written by: eb for use with 3dsMax, PhysX and T3D.

You can purchase Physit! at GameArtStore.com

Questions: support@gameartstore.com



Thanks to everyone who has worked on any area of these sdk/programs/plugins as you have helped make Physit! possible.

Important Information:

- Actor volumes for spheres and capsules are dependent upon the visible mesh's x axis width. This is similar to the way that Doit! calculates the collision volumes. Example: an object that is 1 unit on x and 5 on y, would receive a 1 unit sphere actor. The best way to circumvent this is to either initially rotate your model accordingly or to adjust the actors once they are created.
- Physit! creates automatic backups of your max files prior to visible/visual mesh exporting to DTS/DAE. These backups can be found in:
MAX_INSTALL/Scripts/gas/physit/max_scene_backups/PANEL_NAMED_DIR_HERE
..if your scene in unnamed, your max file will receive a default name of
"NotNamedMaxScene.max"...otherwise it will be named the name of the open scene. There are also backups for complex breakable PX actor files to allow tweaking at a later time.

Files in this backup directory will be overwritten with the latest version of the file using that specific name..and without warning..so be sure to use unique names. ;)

[I plan to add px actor backup file support for the other panel sections..into one of the next version releases of Physit!]

Nearly 6,000 lines of logic and functions deserves a thank you section...

Thank you goes out to:

My fiancée for dealing with my late nights spent putting this tool, the videos, this doc...& well, the entire package together.

Russell Fincher of SickHead LLC. for asking me to make this tool. Though I am sure "I kicked it up a notch" from what he expected.

..and most of all, you guys for appreciating my efforts. Now go make something kick ass already!

(Thanks to GG/TP, Autodesk and Nvidia as well.)