Texture Align Calculator for Pillars

This is a Builder plugin aiming UT'99 Editor and compatible ones.

Purpose:
Calculating Texture alignment – strech face textures for a pillar to gain an aligned texture in order to look continous and not like is cut in pieces for each face of the pillar.

This builder has been written after recomendations from ut99.org by Higor.
https://ut99.org/viewtopic.php?f=68&t=13920
Builder doesn't do the pillar, but is computing texture size for a known pillar – it's a calculator right in Editor usable during the work arround a pillar, mainly for U pan aka HSize, then an Offset used for moving faces in order to gain one or two continous textures spread on pillar's faces (aka Tiles number).
It won't need getting face length as long as builder used for cylinder factoring should have radius written and faces (sides). Builder will calculate itself the length of the face and the rest of needs without using clip markers and more time, Calc_OffSet and Calc_HSize are going into U texture scale data for aligning texture to look normal. Results are depending on PI number (how many decimals are used, 2 or 6) Example is for **3.14** – in final stage I used **3.141592**.
I think explaining how to align these might not be understood by everyone and so in Archive I'll attach a **Low Resolution and Low BitRate FLV movie**, just as a working demo using the sample from previous topic. Writing here 3 pages might not be useful.

However... Installing steps must be described, not everyone can handle adding Builder type plugins in Editor.

Install description:
#1 Copy U file containing builder in **System** folder where usually are Packages with **U** extension;
#2 Copy **bmp** file (which is a sort of icon) inside **editorres** folder from System;

#3 Find a Text Editing application such as Notepad NotePad++ etc. and open UnrealTournament.ini file in this application;
#4 Find section where are more lines containing **EditPackages=**
Samples:

```
...
EditPackages=Core
EditPackages=Engine
EditPackages=Editor
EditPackages=Fire
EditPackages=BotPack
EditPackages=UnrealShare
EditPackages=UnrealI
EditPackages=UMenu
EditPackages=Botpack
EditPackages=UWindow
EditPackages=DaewonBuilders
EditPackages=FrameBuilder
EditPackages=ExtendedBuilders
EditPackages=RahnemBrushBuilders
EditPackages=TarquinBrushBuilders
EditPackages=TarquinExtrudeBuilder
EditPackages=DavesBrushBuilders
...
```
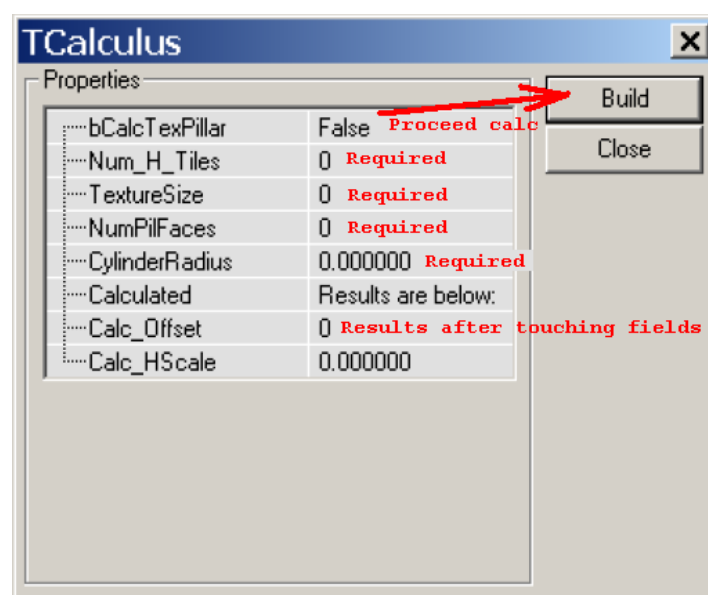
Hit Enter after such a last line and add a new entry:

EditPackages=TexCalculus

#5 Save UnrealTournament.ini file – it doesn't hurt if you do a backup before all editing.
From now on if you open Editor a new button should be available through brush builders having this tool available for use.

   Operating:

   Required fields must be completed excepting Result fields which are completed by builder after launching calculations –
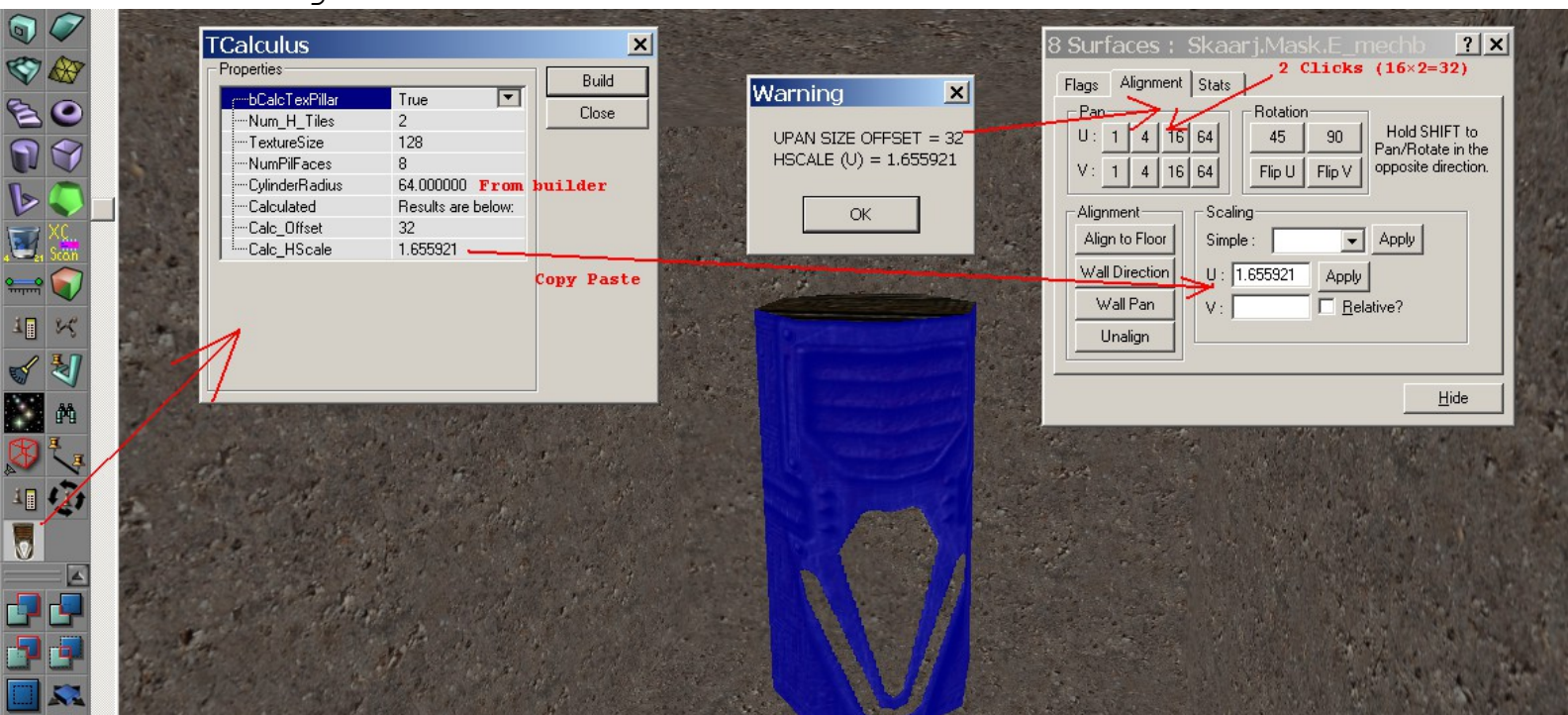
this is your needed data for textures concerning pillars.
    Builder will execute the task if option **bCalcTexPillar** is
True and Build button is pressed. Option stays True for future
needs, you can turn it False if you don't need it any longer,
doesn't matter that much because it won't affect map in any
way, builder is completely independent.

    Builder has been tested using various pillars having 8 16
faces or 12 faces, it simply works normally, you need only to
figure what it does and what do you need to do, I repeat, You
are editing map not the Builder, the Builder it's only doing
some calculations for you concerning U Pan data and texture
scaling from U field – we talk about horizontal scalling
calculation in relation with polygon face in order to match
continously the rest of polys-faces.

    Variables:
    - Num_H_Tiles – how many texture fields are surrounding
the pillar – used 2 in sample;
    - TextureSize – this is texture size in Horizontal axis
128 256 etc.;
    - NumPilFaces – format of pillar – how many polys-faces is
having 8 12 16;
    - CylinderRadius – this is exactly the radius used in
building pillar from Cylinder builder;
    - Calc_Offset – This is offset for stepping U Pan – User
task – is first result returned for user;
    - Calc_HScale – Texture must have this scale in U field
for being aligned with others – is second result returned for
user. In image PI number had 3.14 for calculus.

    That's all so far.