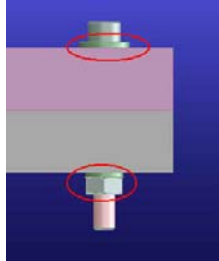


SolidGenius Tutorials

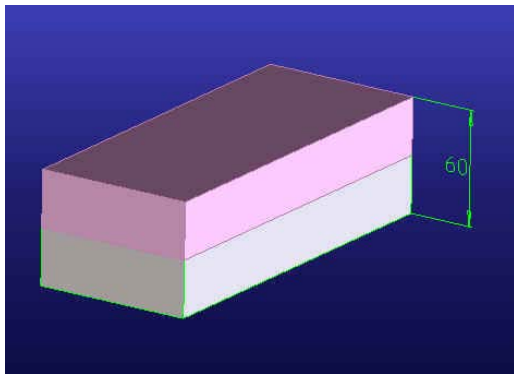
Example 2

Subject: Automatic insertion of washers to head and nut side of a screwed connection

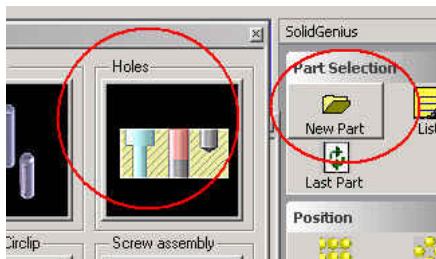


- Start SolidGenius

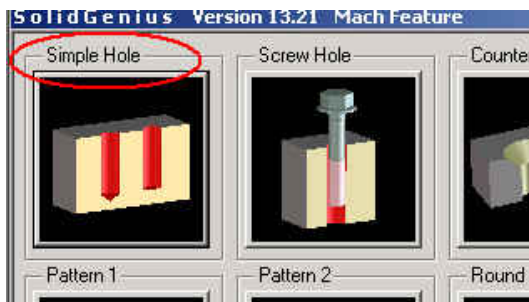
- Load package file “tutorial2_start.pkg” from the “Tutorials” folder under the SolidGenius installation directory – you will see 2 blocks with total height of 60 mm.



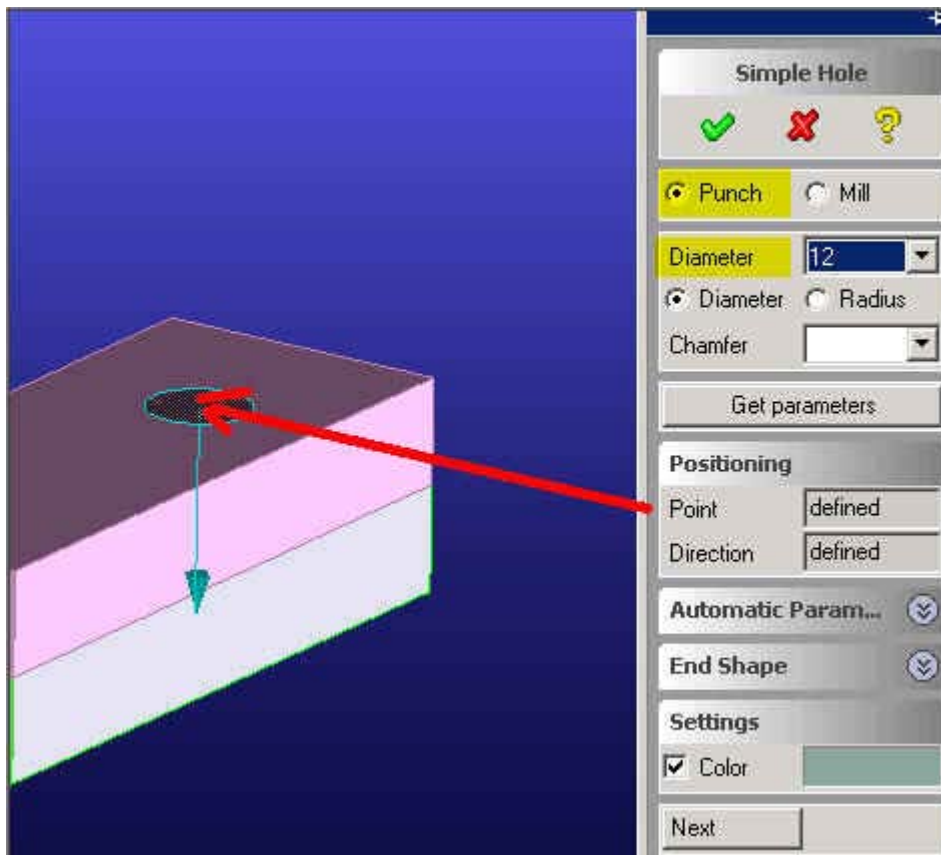
- Select [New Part] and [Holes]



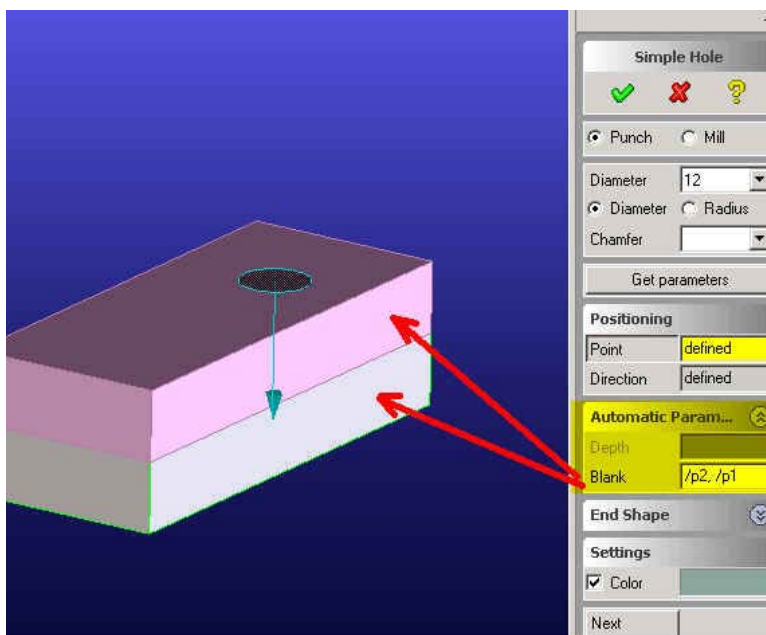
- Select [Simple Hole]



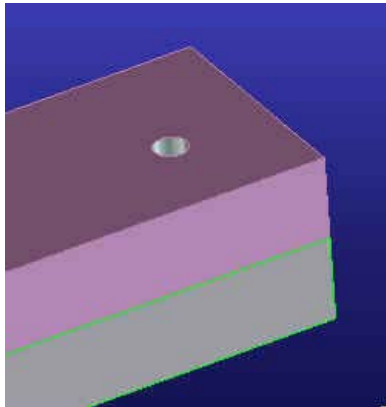
- Select [Punch] and hole diameter 12.
Select a point on the upper block (do not complete the function yet !) ...



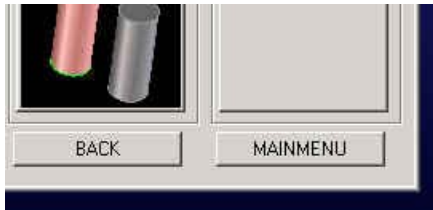
- We want to punch the hole through both of the blocks. SolidGenius takes the part under the position point automatically as “Blank”. To add the second block to the blanks, select menu field [Automatic Parameters] and select **both** of the blocks as “Blank”.



- Select [OK] to complete the dialog.
You should see a hole going through both of the blocks.



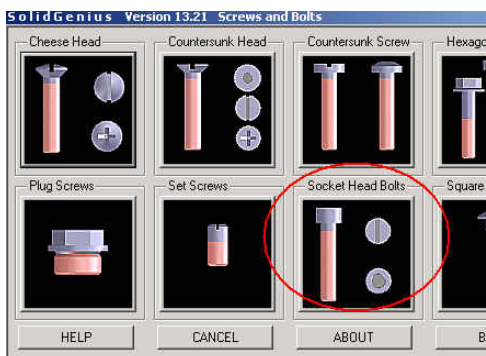
- Go back directly to main menu and



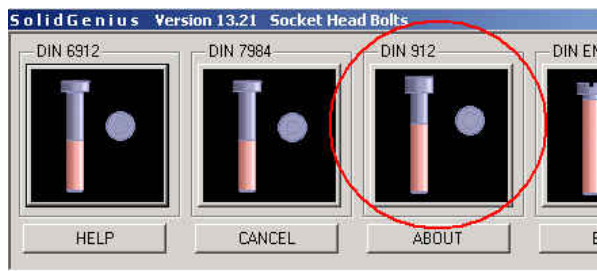
- .. select [Screws] ...



- ... select [Socket Head Bolts] ...



... select [DIN 912]

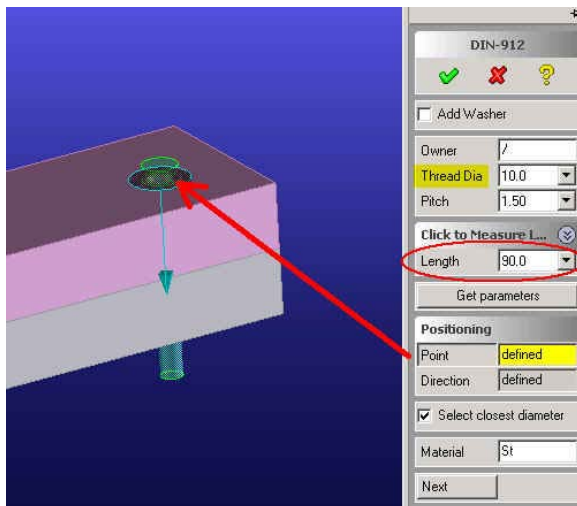


- Without setting any parameters, simply select the circular edge of the hole as screw position.

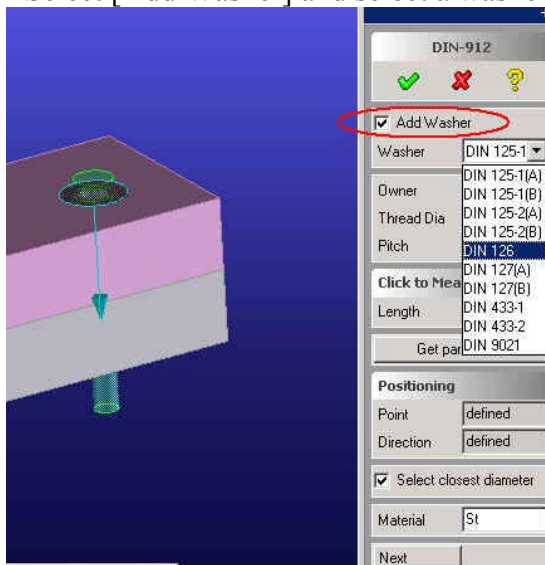
You **don't have** to catch the midpoint of the edge by using [CTRL-SHIFT] !

It is enough simply click the circular edge !

Notice how SolidGenius took the center and the direction automatically and selected the fitting screw diameter fitting to the hole. Change the length value to 90 mm and notice how preview helps you to set the correct length. ...



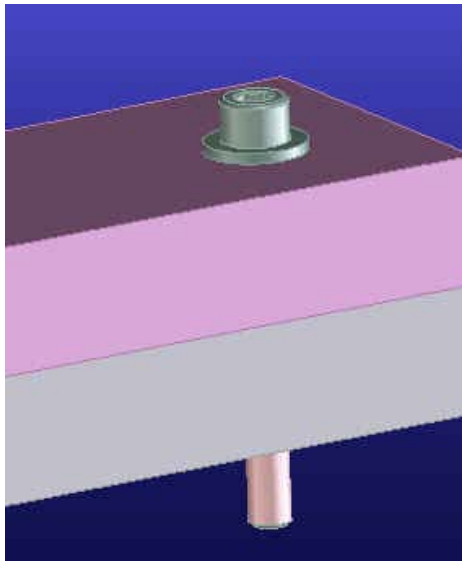
- Select [Add Washer] and select a washer type from the drop-down list



- Complete the dialog by pressing [OK] button



- You should see a screw with the automatic inserted washer at the head side.

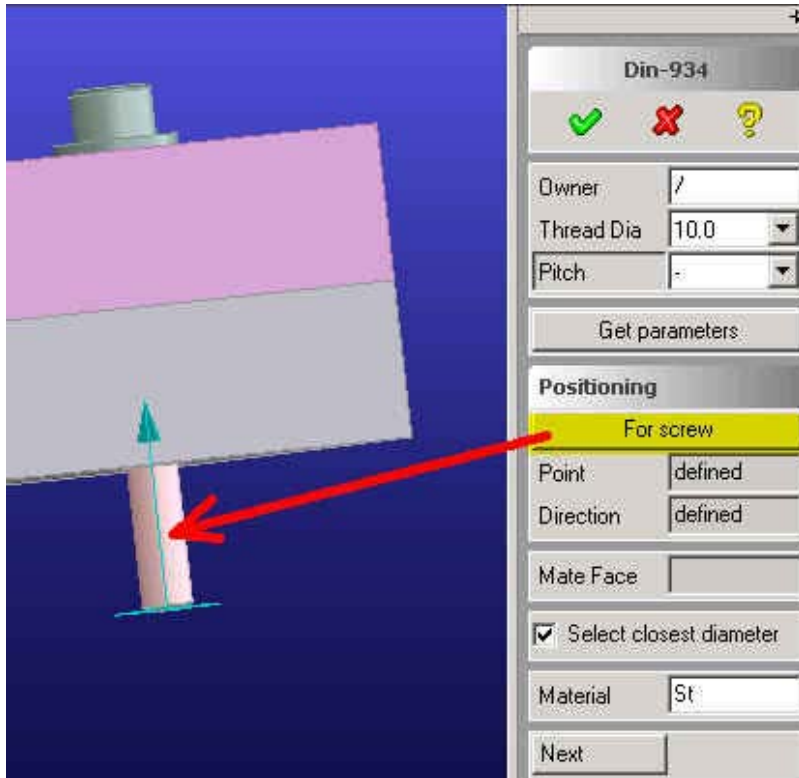


Now we should add a nut to the end of the screw.

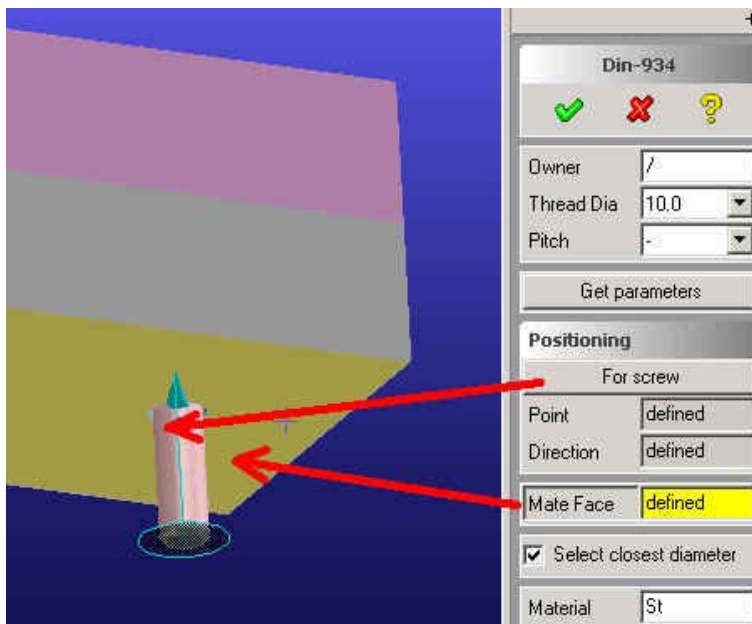
- Go to the main menu, select [Nuts] and select [DIN 934] to call the nut dialog.



- Without selecting any other parameters, simply select menu option [For screw] and click on the screw. Notice how the diameter value of the nut is changed to the correct value ...

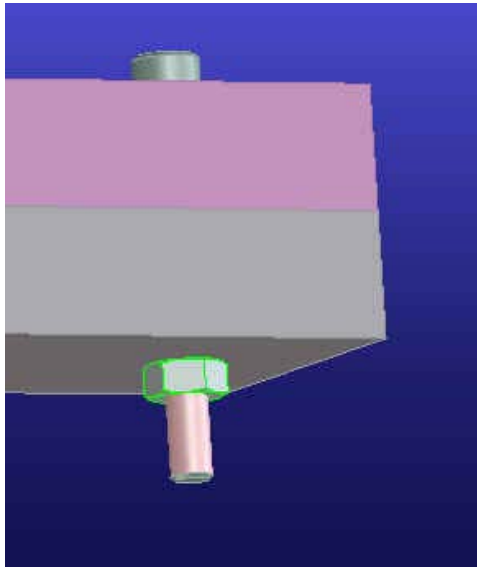


- ... select [Mate Face] and select the yellow face of the lower block. This indicates the position of the nut on the screw axis

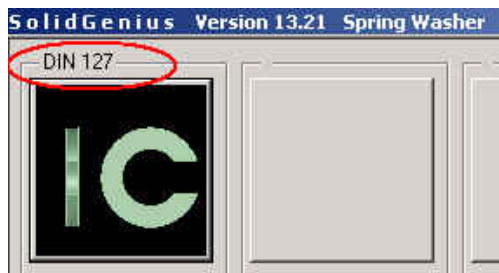


... accept the dialog by pressing [OK]

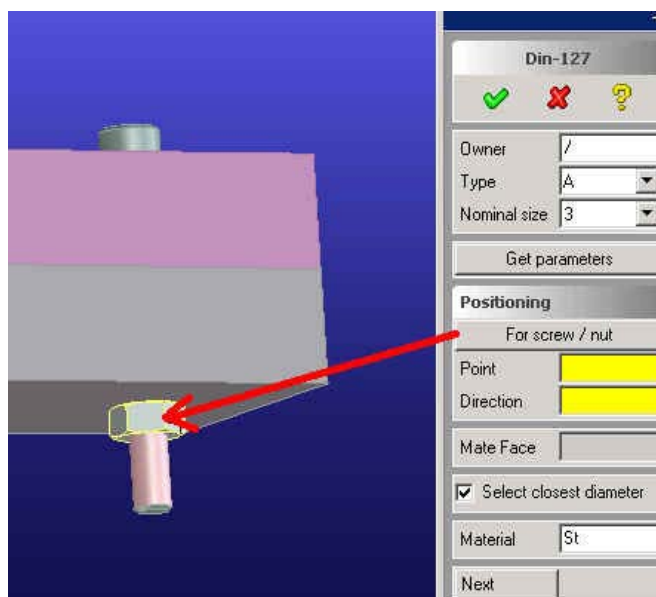
You should see the correctly placed nut on the screw.



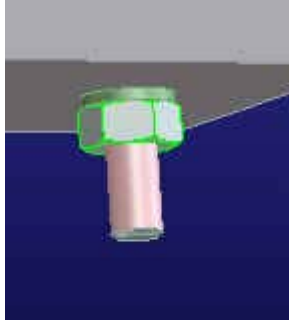
- To add a washer to the nut, go to the main menu and select [Washers]. Select [DIN 127] from [Spring Washers] submenu.



- Without setting any other parameters, select [For screw / nut] and click on the previously created nut.



- Accept the dialog by pressing [OK] and notice how SolidGenius inserted the washer automatically to the correct side of the nut and moved the nut according to the washer thickness along the screw axis. We are finished now !



- In this tutorial we have seen how we can add a washer automatically to any screw at creation time and as well as to any existing by SolidGenius created nut or screw . In both cases, the screw/nut is moved according to washer thickness to make place for the washer.

