



BTL Functional cover SWOOD Beam & Wall 2023 SP3

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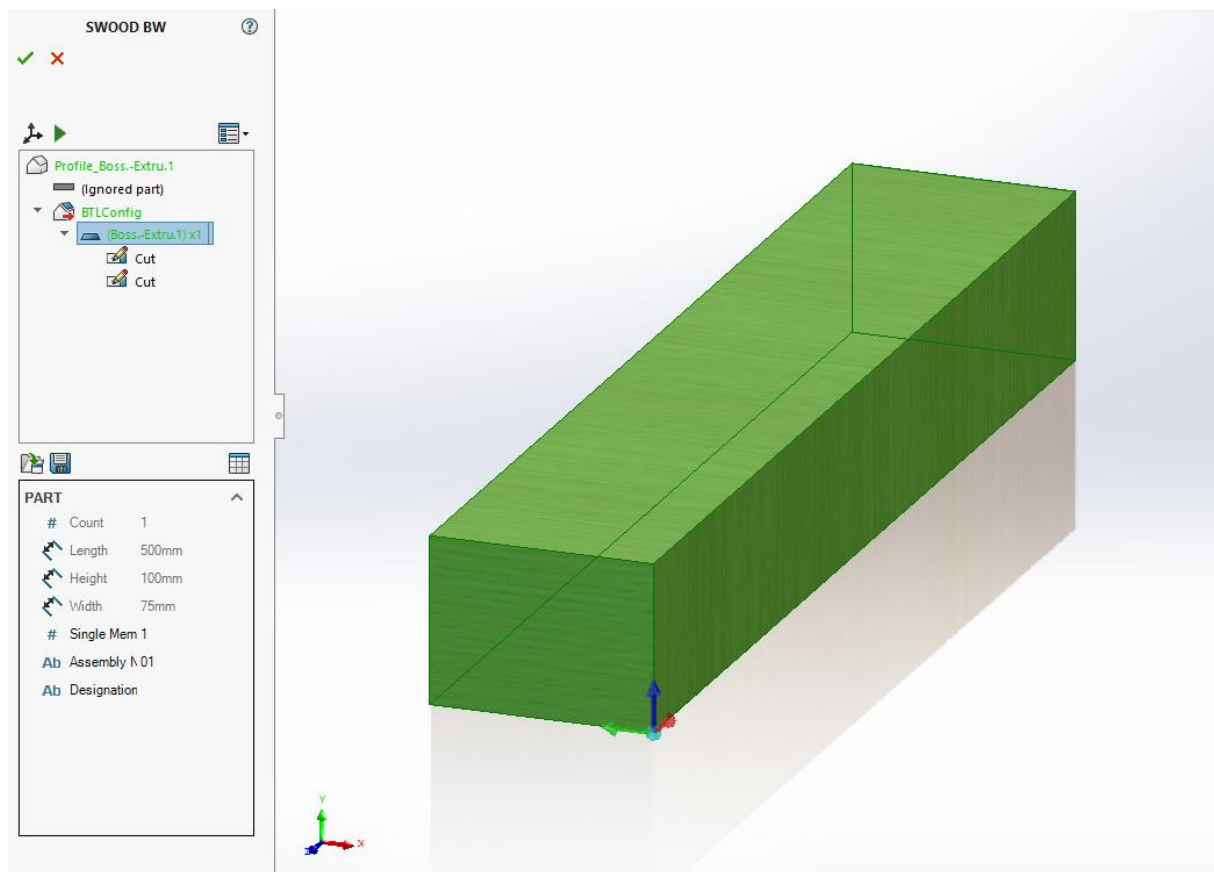
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I. BTL Recognition

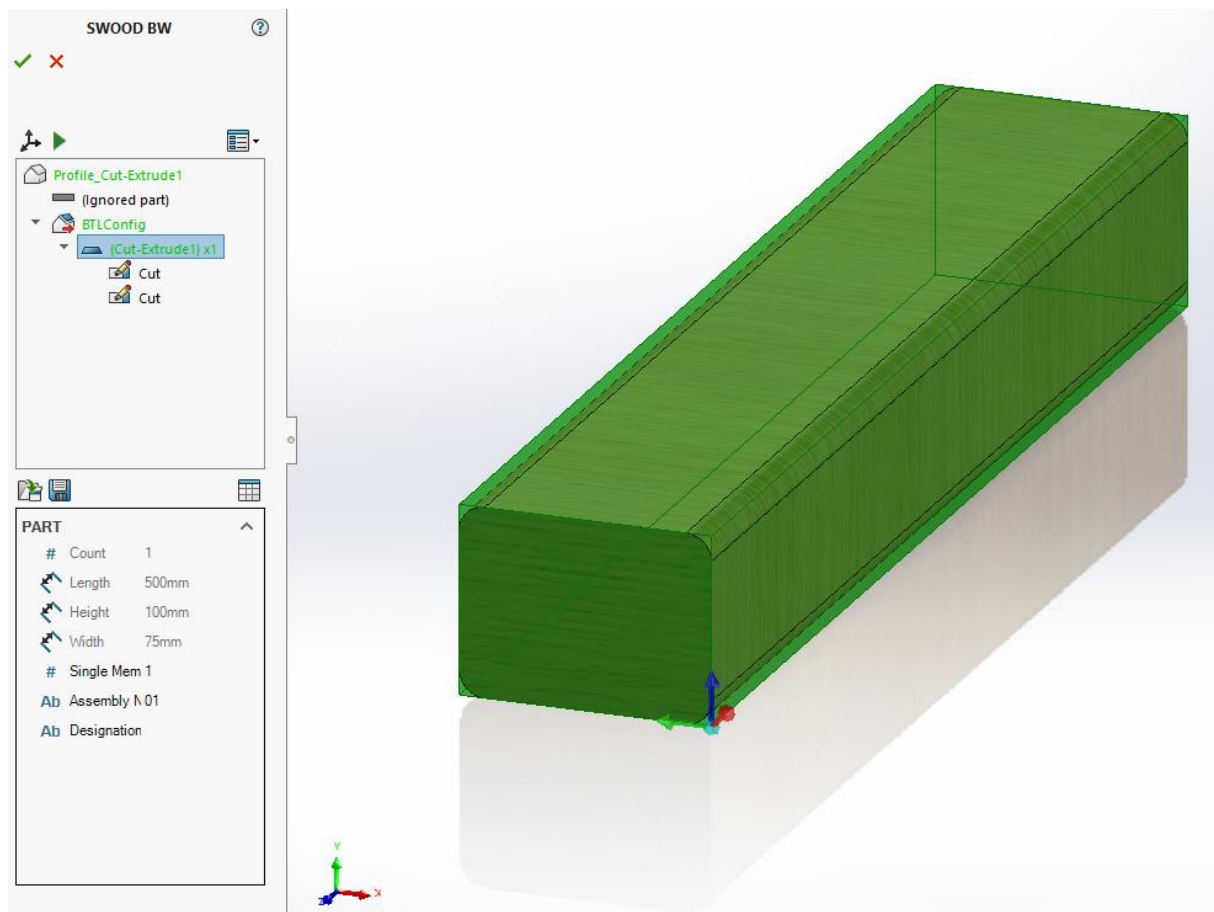
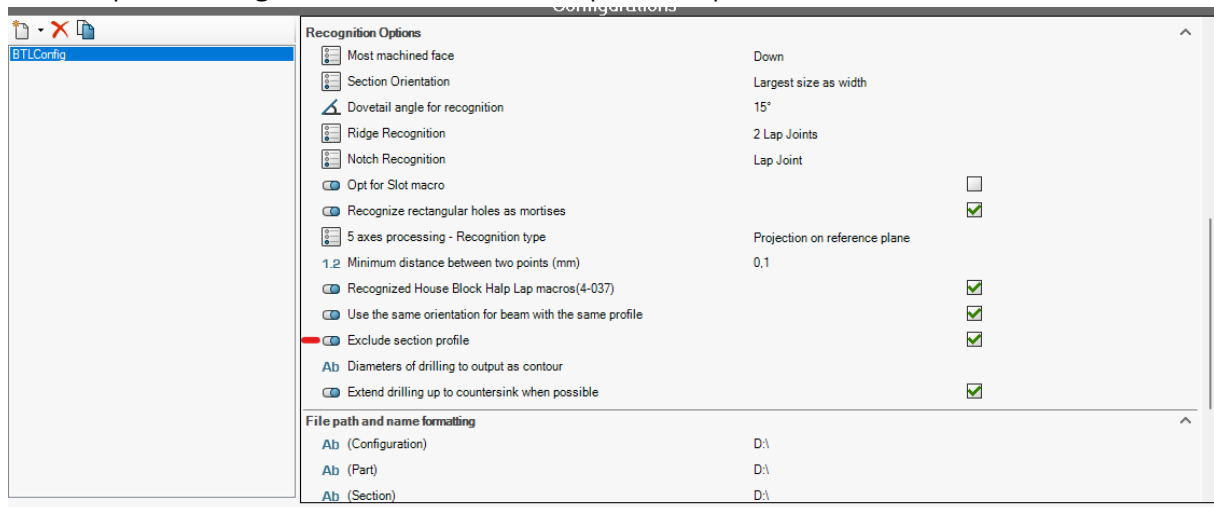
1. Box

BTL export only support rectangular beam, so we always recognize bounding box, and plane associated to it.



2. Profile

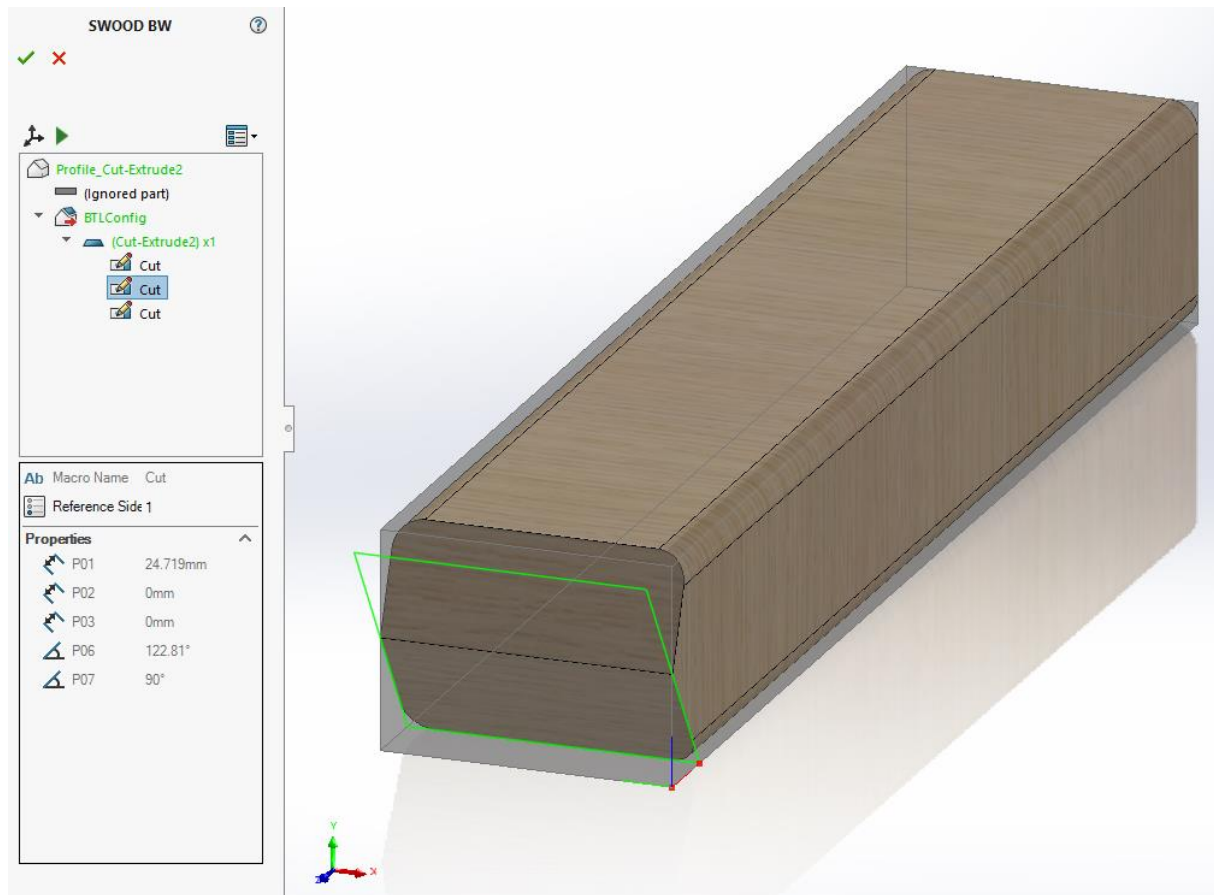
If a beam is profiled, that it is not rectangular in shape, we can use the option "Exclude section profile" to ignore the faces that compose the profile.



II. BTL Macros

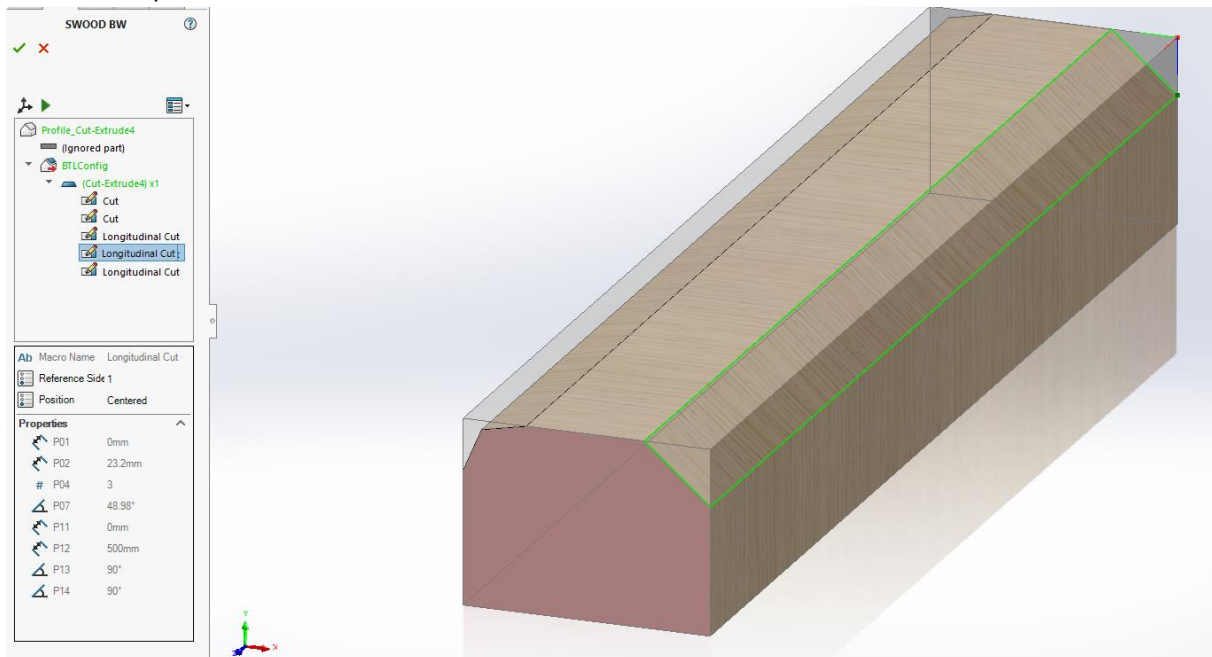
3. Cut (1/2-010-X)

A plane that is perpendicular to the longest axis of the beam, and that is part of the convex shape of the beam.

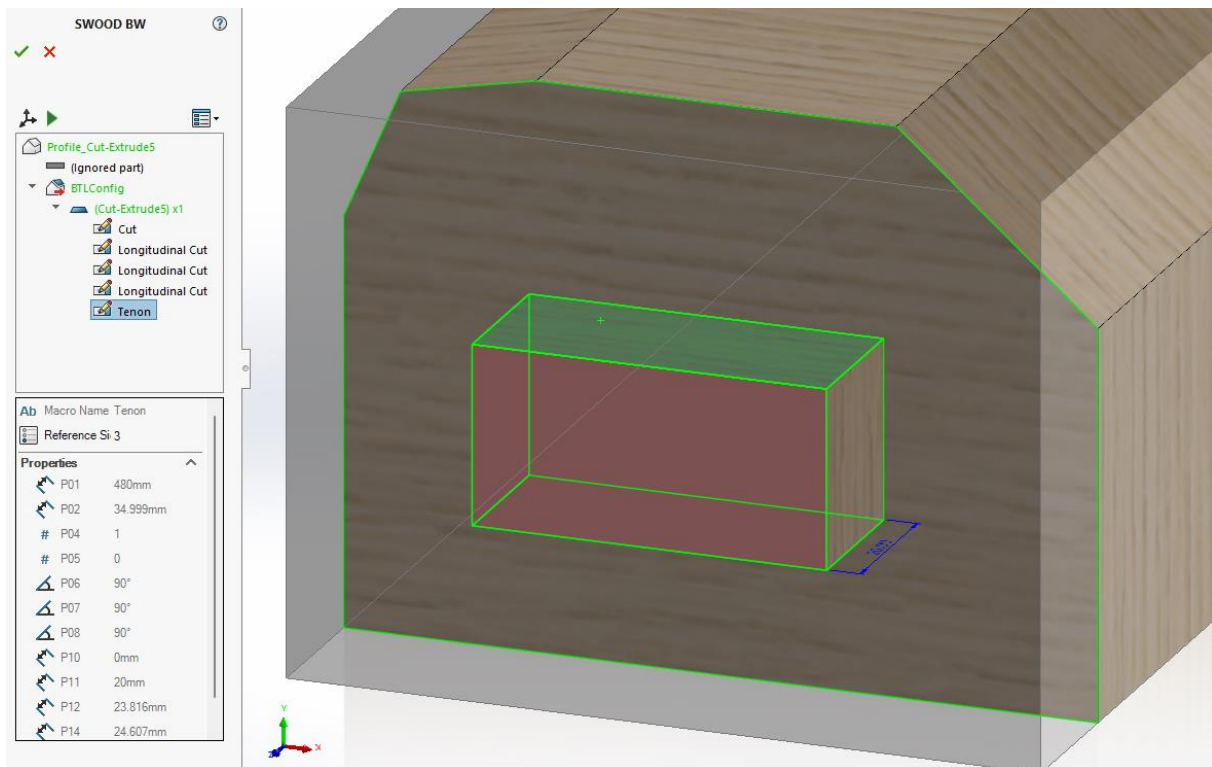


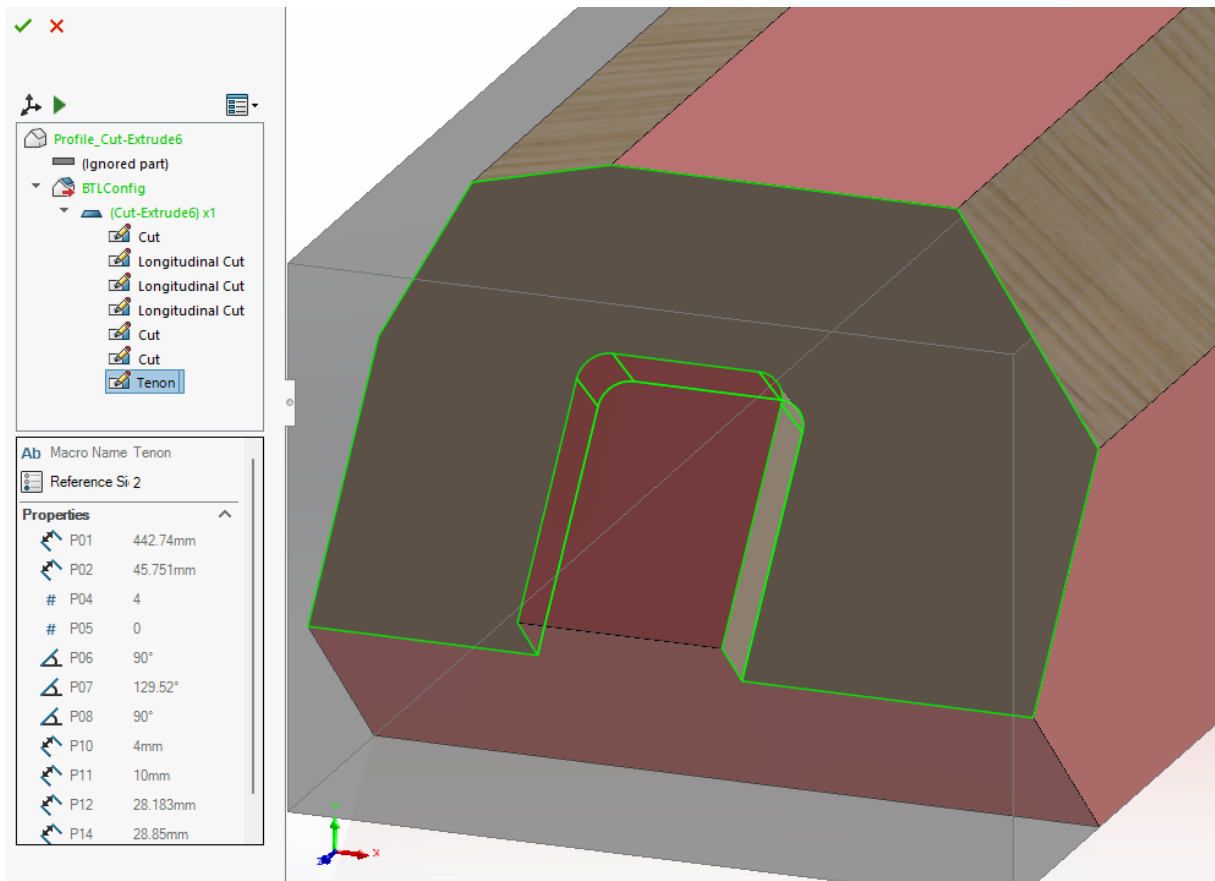
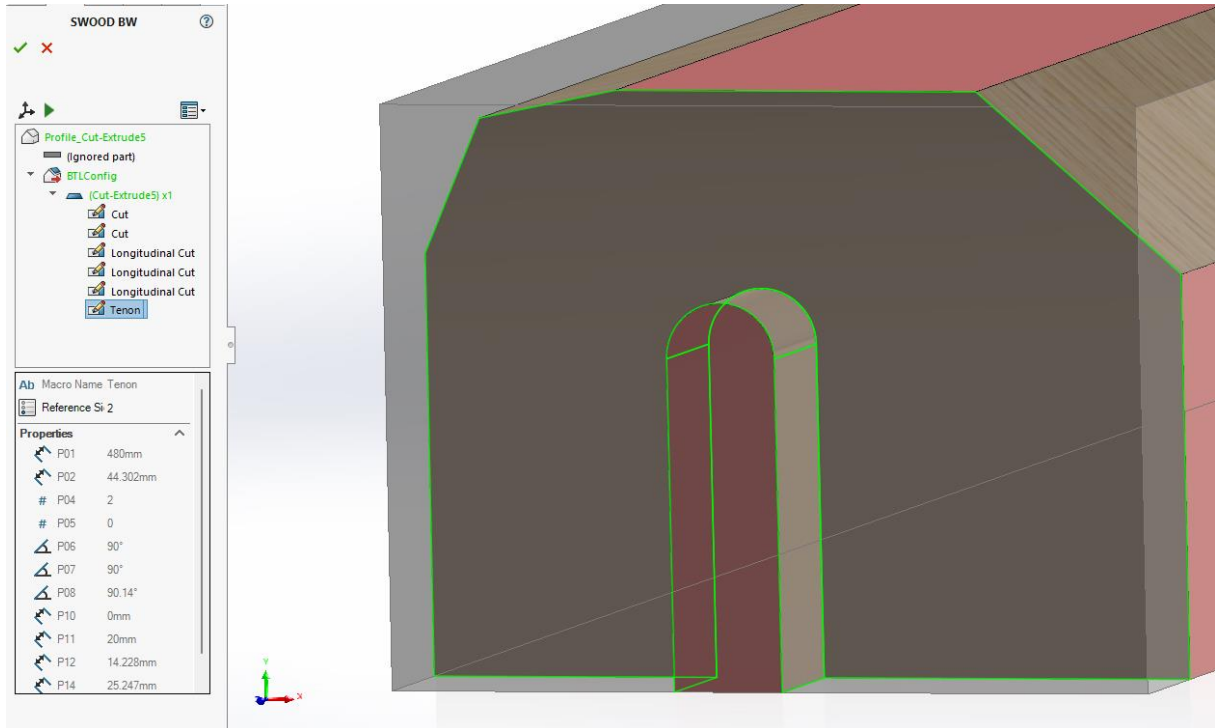
4. Longitudinal Cut (0/3/4-010-X)

A plane that is not perpendicular to the longest axis of the beam, and that is part of the convex shape of the beam.

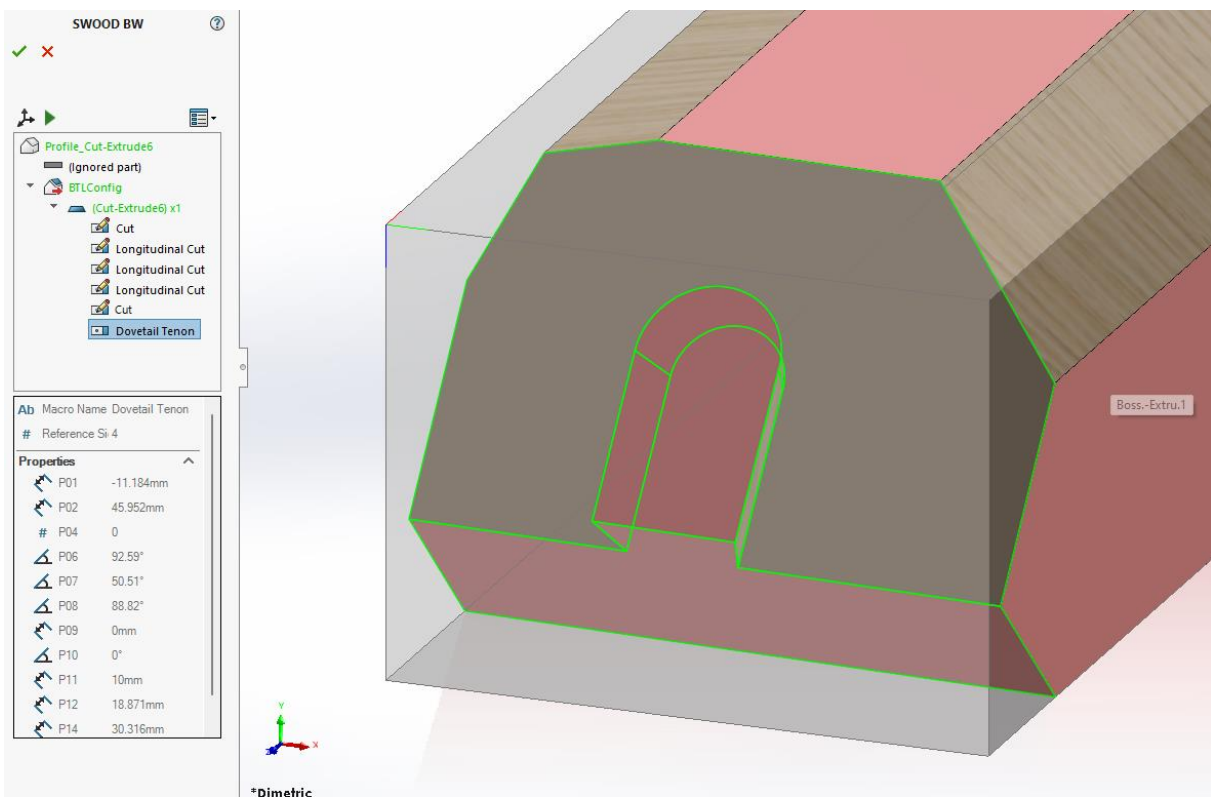
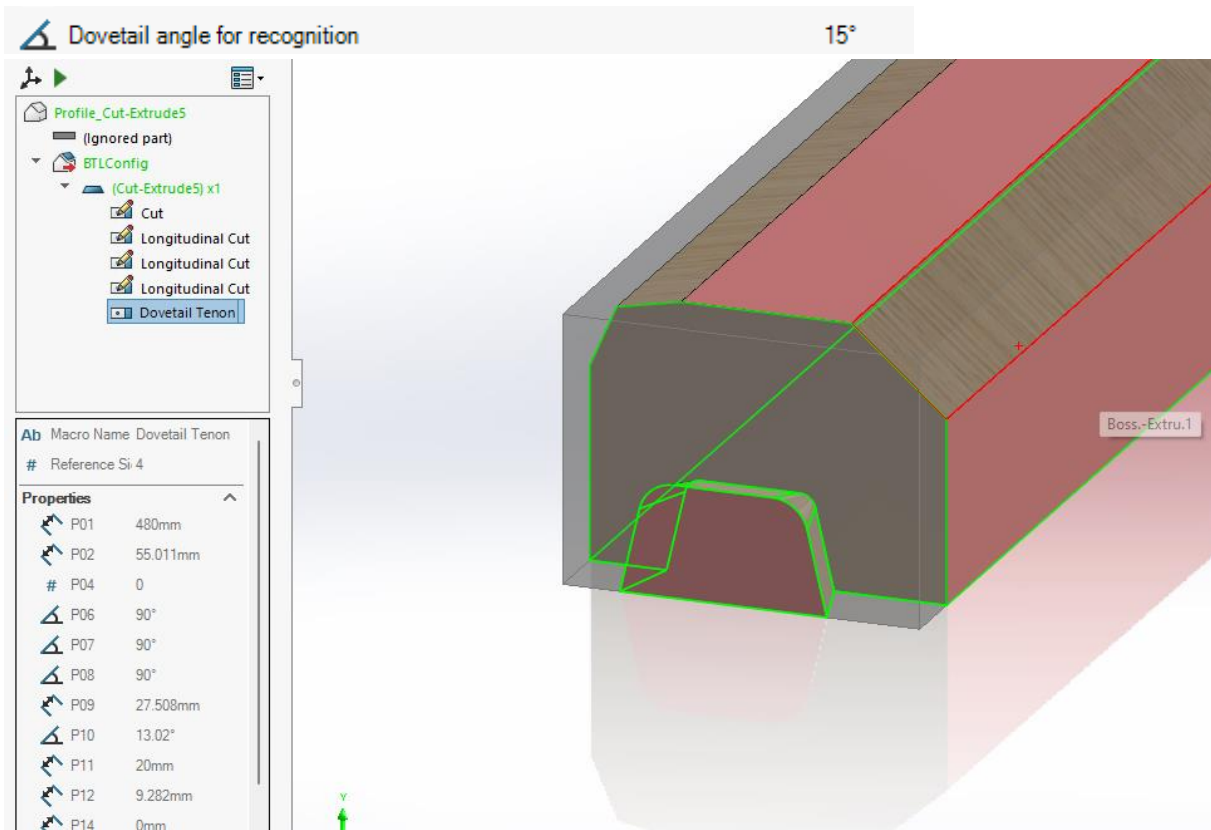


5. Tenon (1/2-050-X)



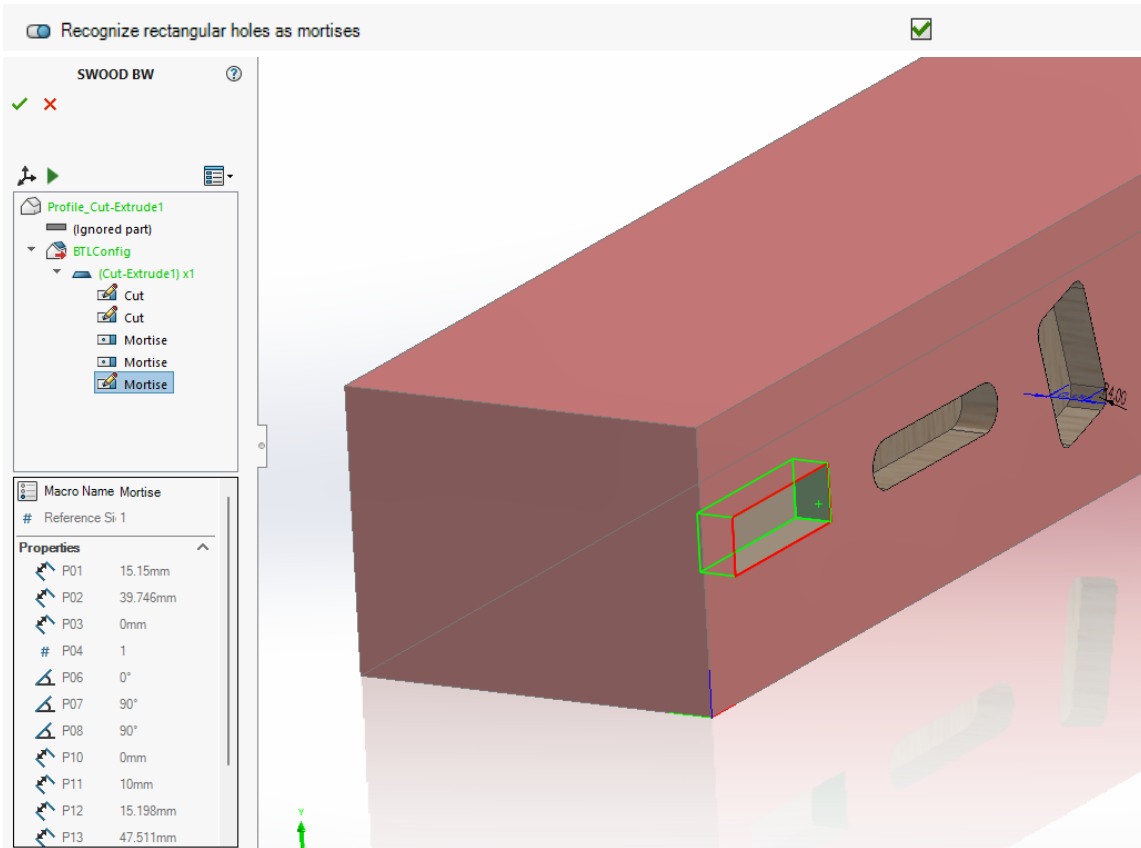


6. Dovetail Tenon (1/2-055-X)

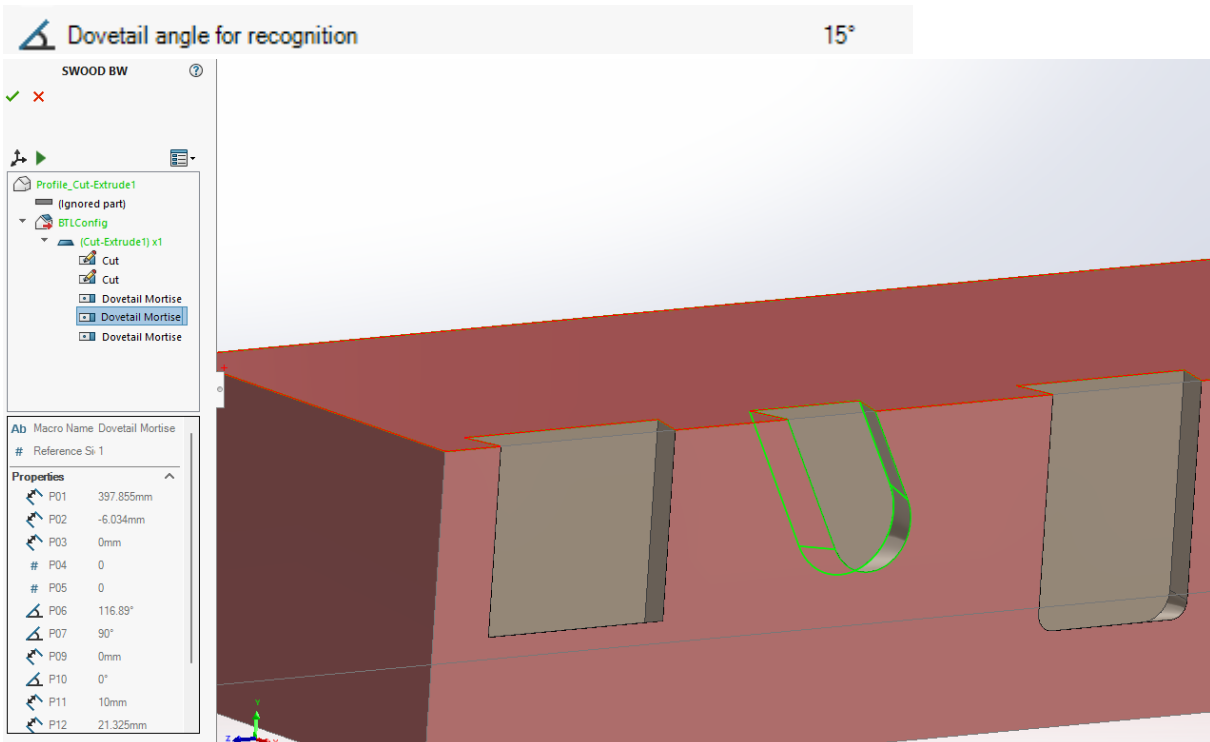


7. Mortise (3/4-050-X)

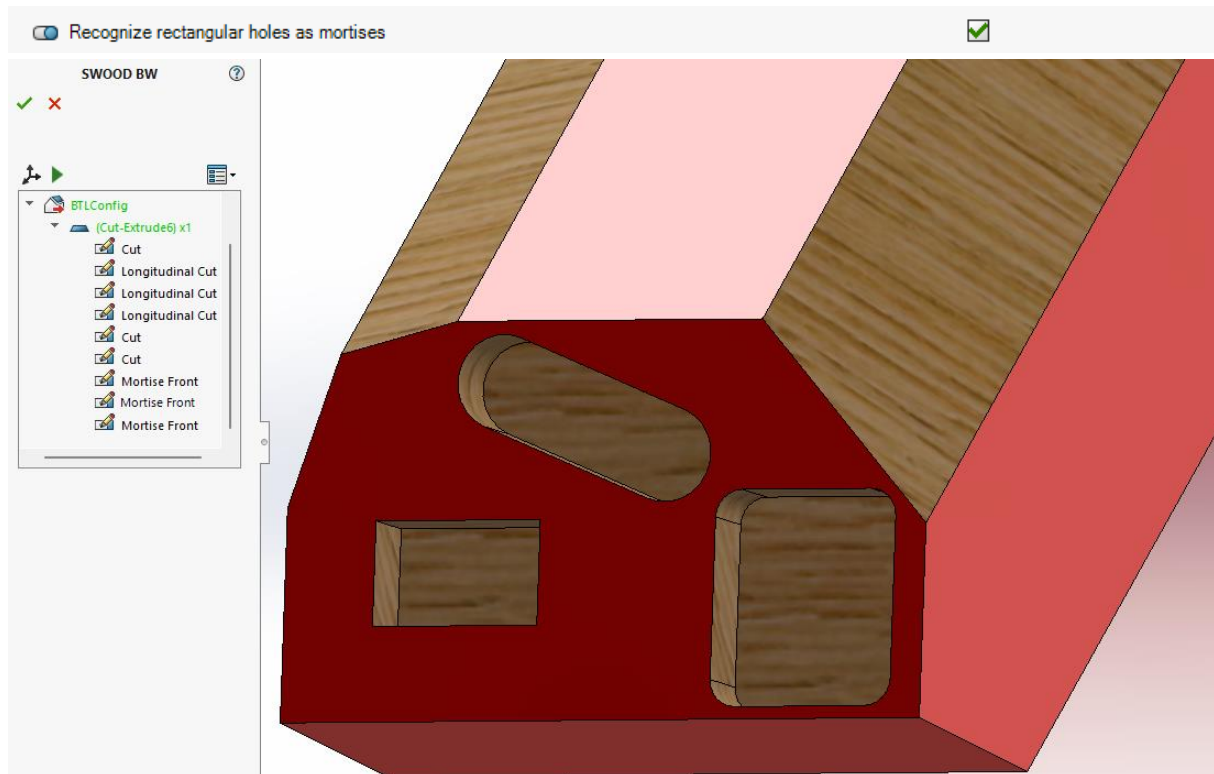
Rectangular pocket are usually recognized as Slot but it's possible to output them as mortise. Rounded rectangle and oblong pocket are always recognized as mortise.



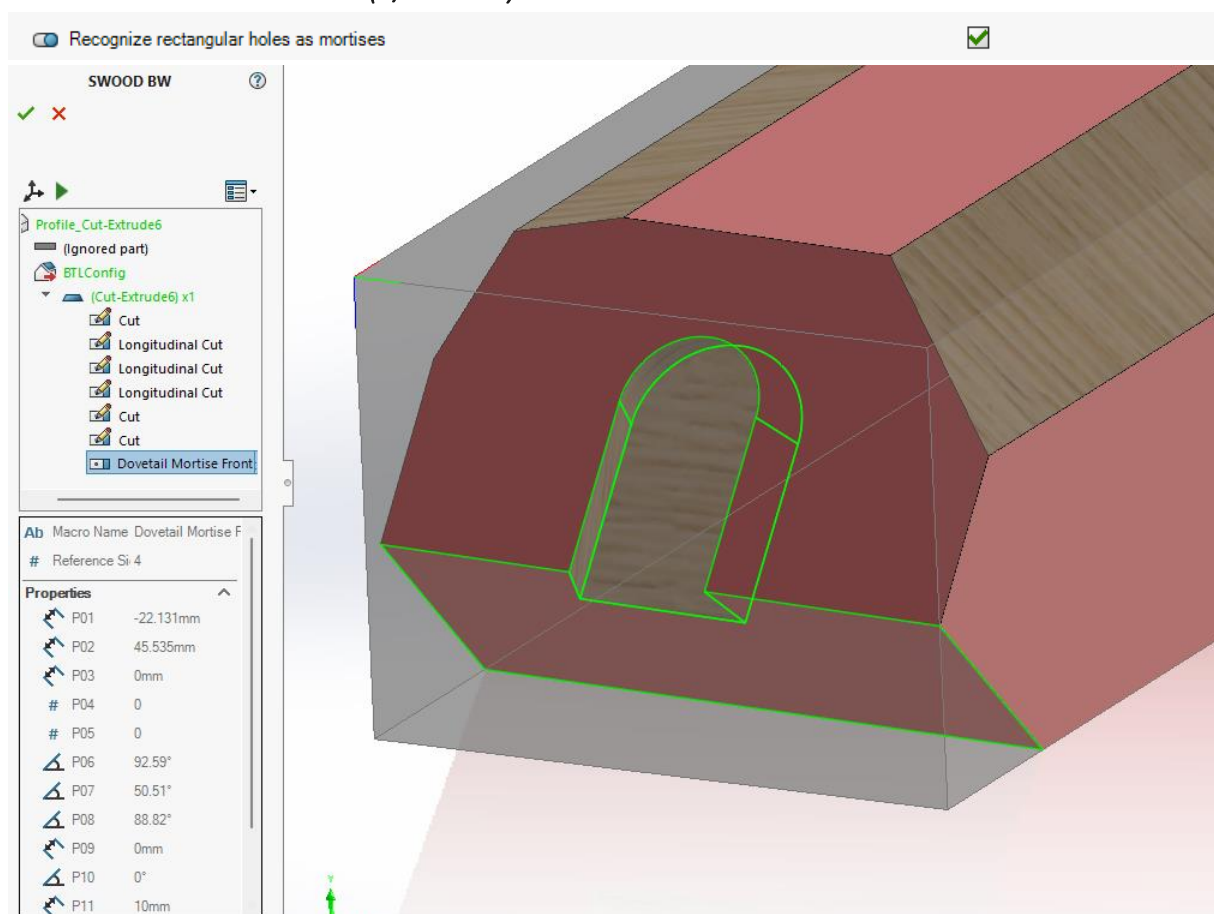
8. Dovetail mortise (3/4-055-X)



9. Mortise Front (3/4-051-X)

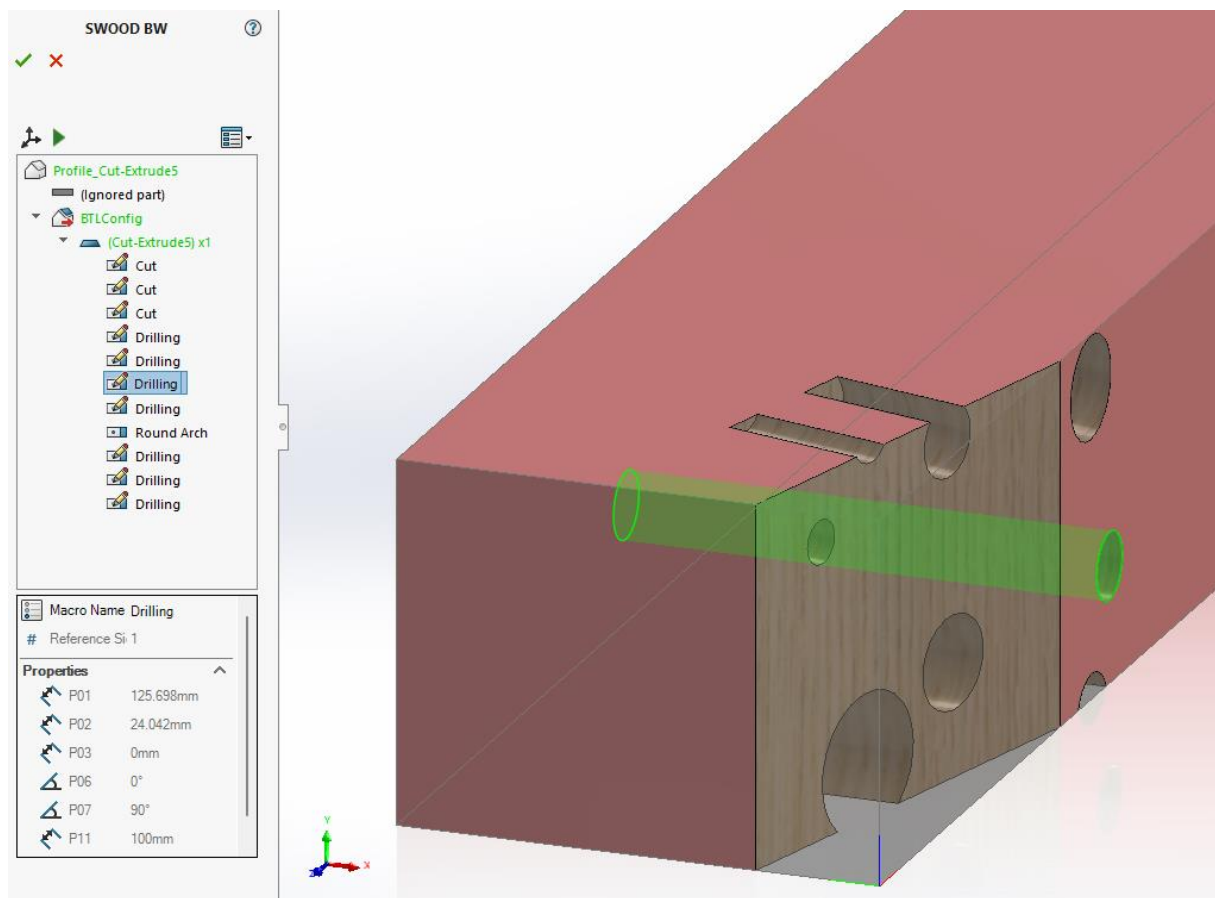


10. Dovetail mortise Front (3/4-056-X)



11. Drilling (3/4-040-X)

Any cylinder can be considered a drilling, no matter the cylinder axis, the depth, or the diameter of the hole.



Exceptions are cylinders faces that goes through the whole body and that are an arc profile that measure less than 180°.



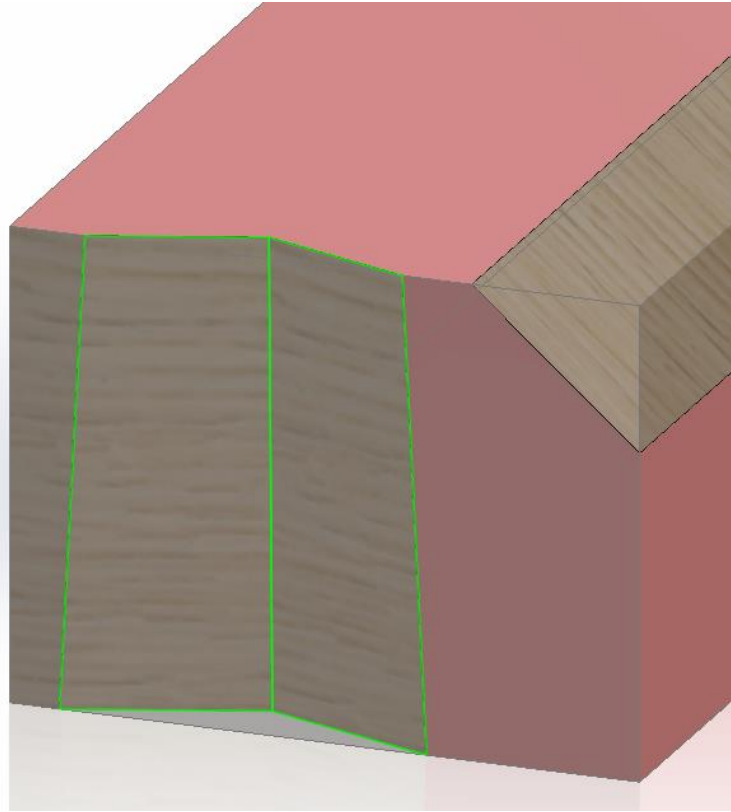
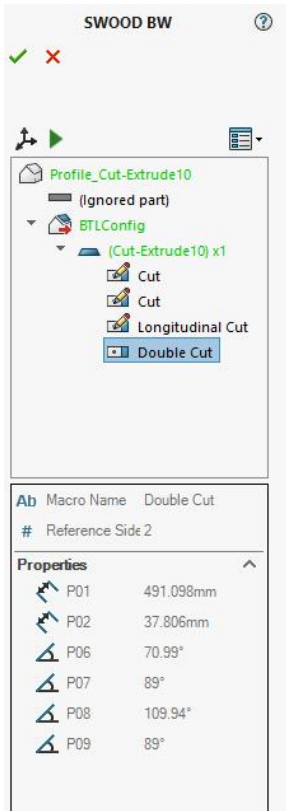
You can also specify if you want specific diameter to be outputted as contour instead of drillings.

Ab Diameters of drilling to output as contour

9:18

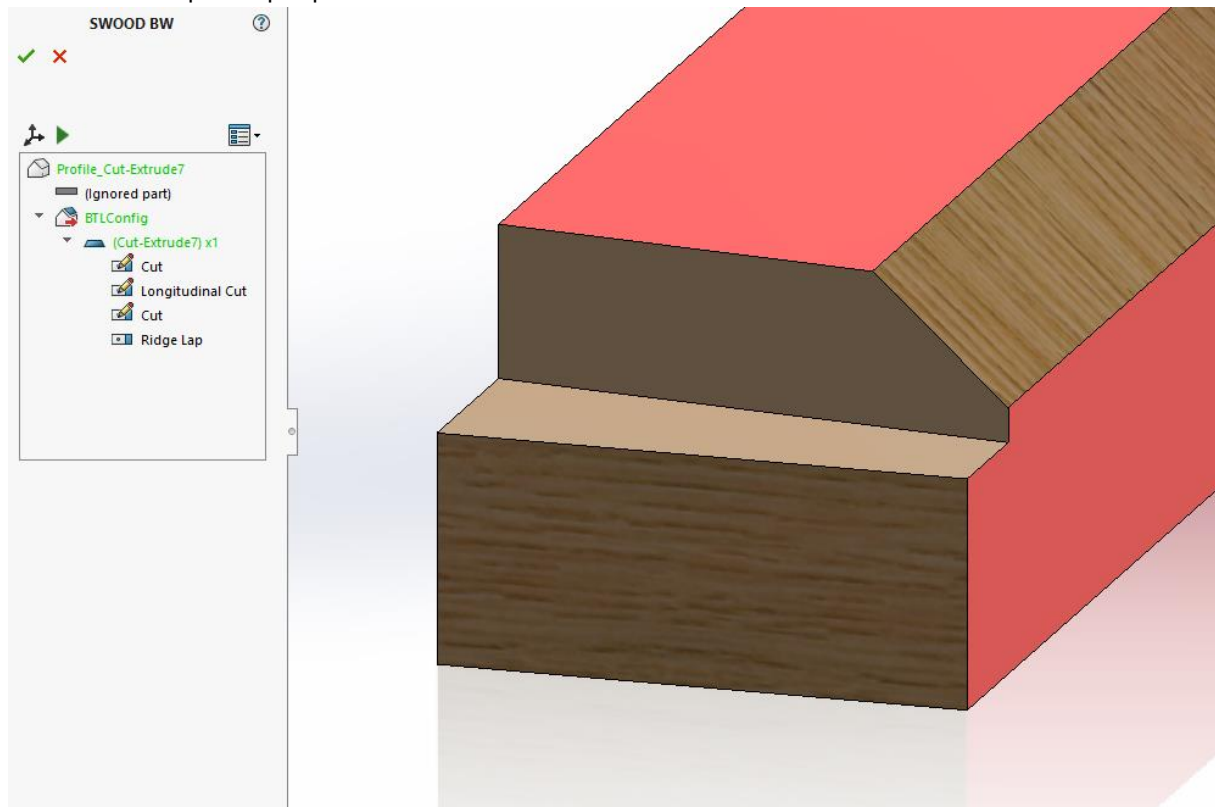
12. Double cut (1/2-030-X)

Two faces with normal facing X axis or -X axis (dot product positive with x axis positive for both normal or else negative for both normal).



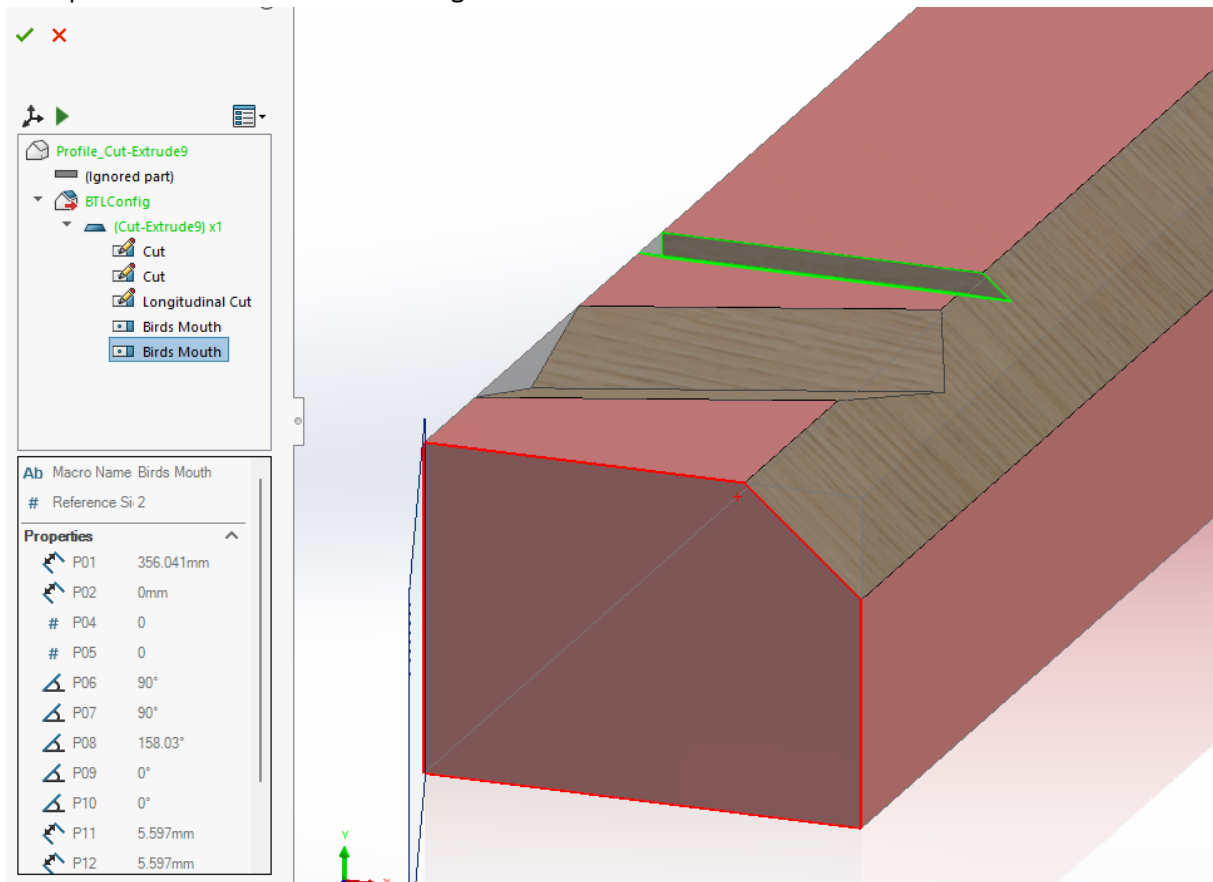
13. Ridge Lap (1/2-011-X)

Two or three plane perpendicular to each other at the end of a beam.



14. Birds Mouth (3/4-020-X)

Two planes that are not in the length axis of the beam and not at the end of the beam.

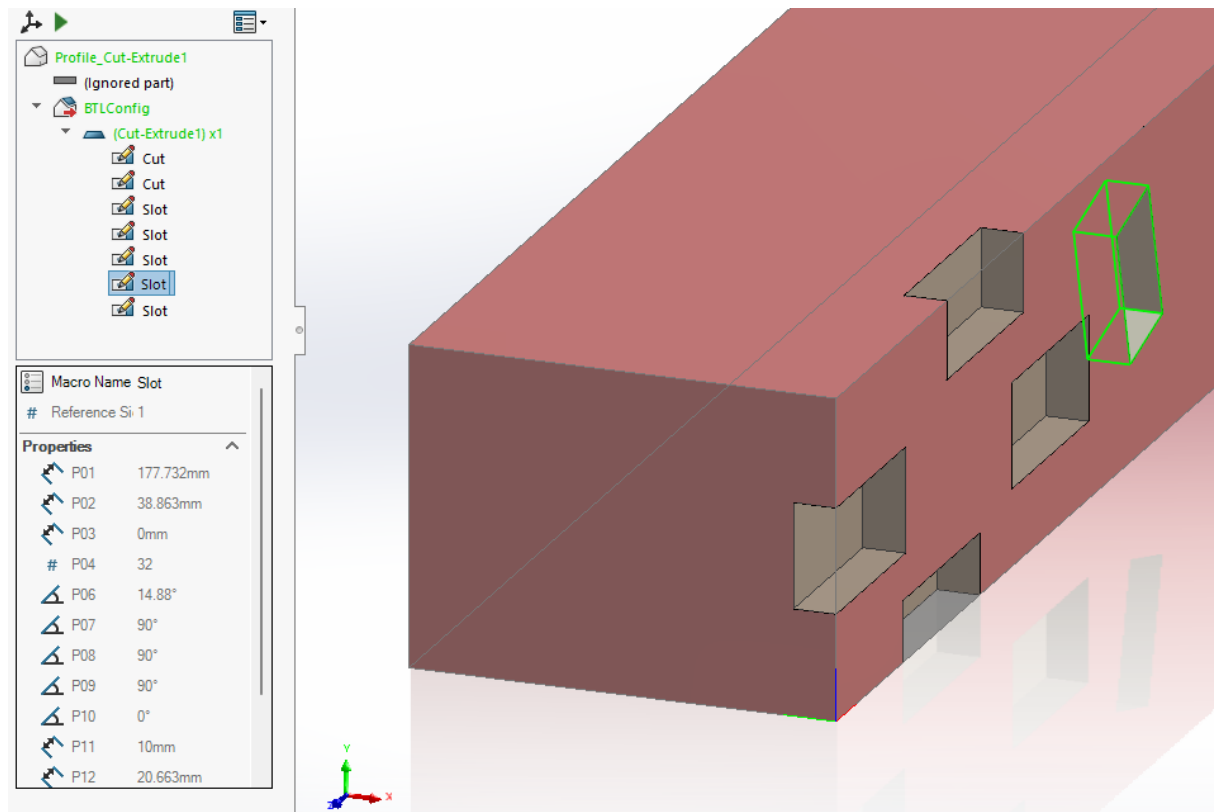


15. Slot (3/4-016-X)

Slot only used for rectangle pocket with a bottom face orthogonal to Y-Z axis.

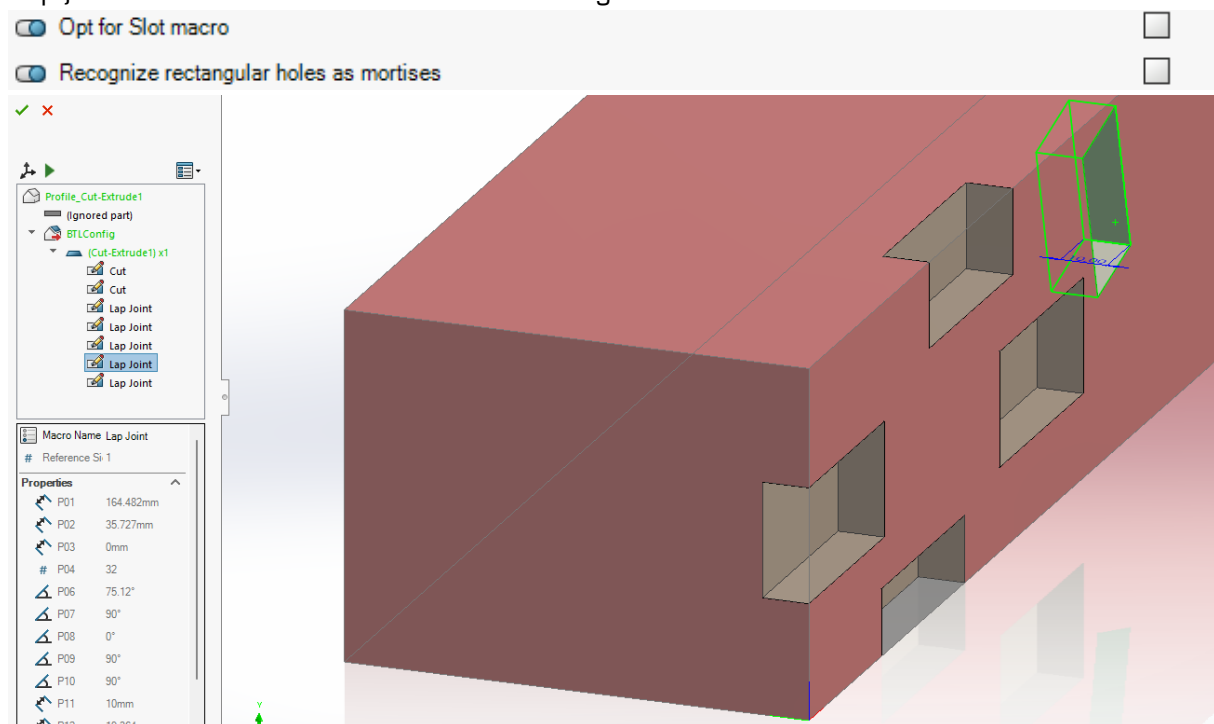
If it's a front macro then it can be outputted as a rectangle front mortise.

If it's tilted it will be outputted as a lap joint.

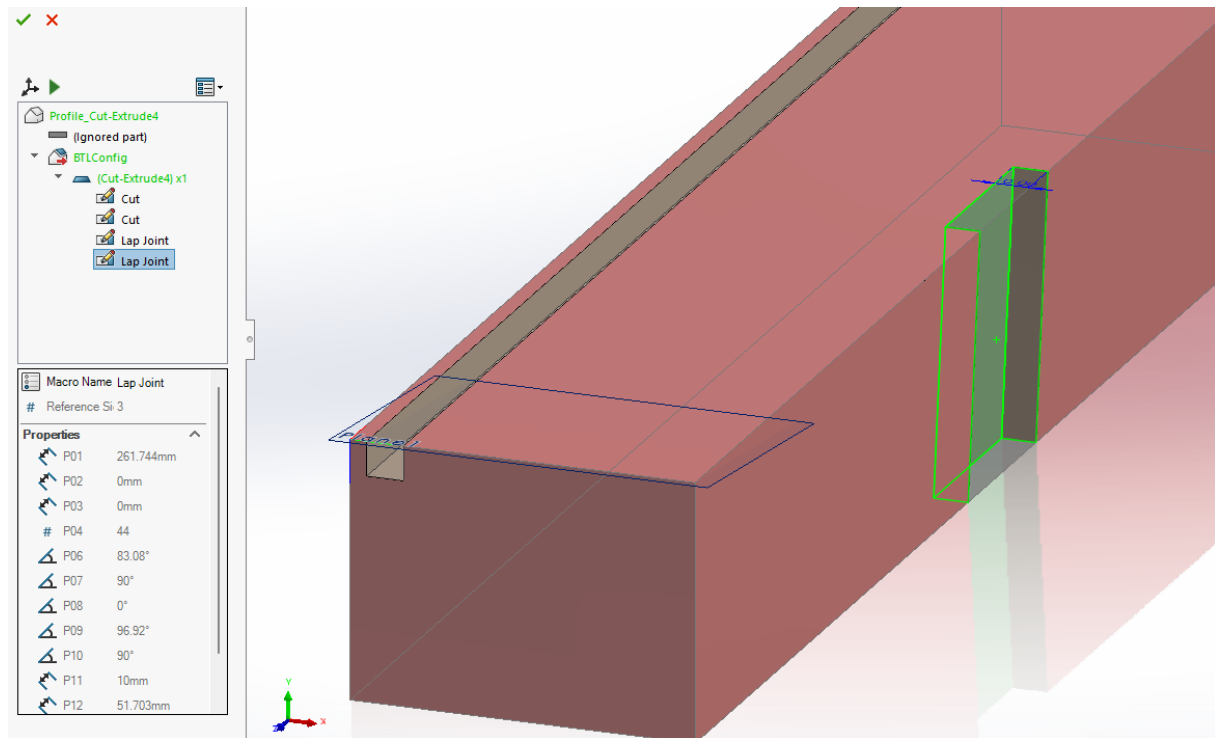


16. Lap Joint (3/4-030-X)

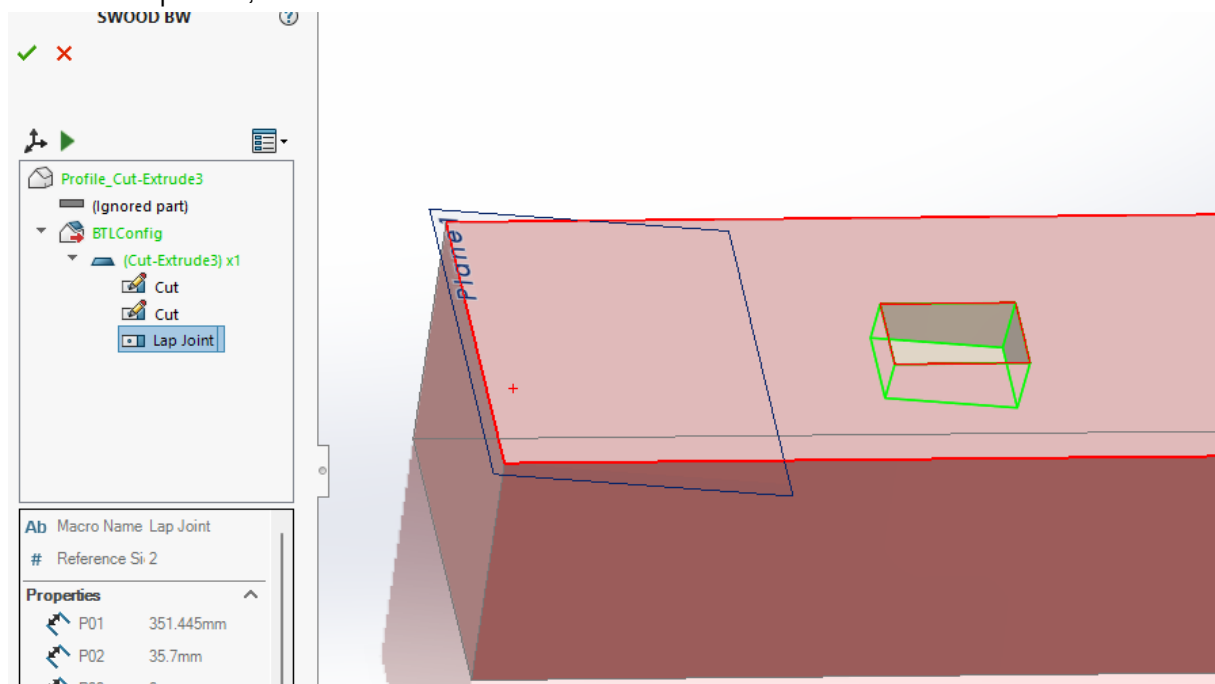
Lap joint can be used for the same machining as Slots.



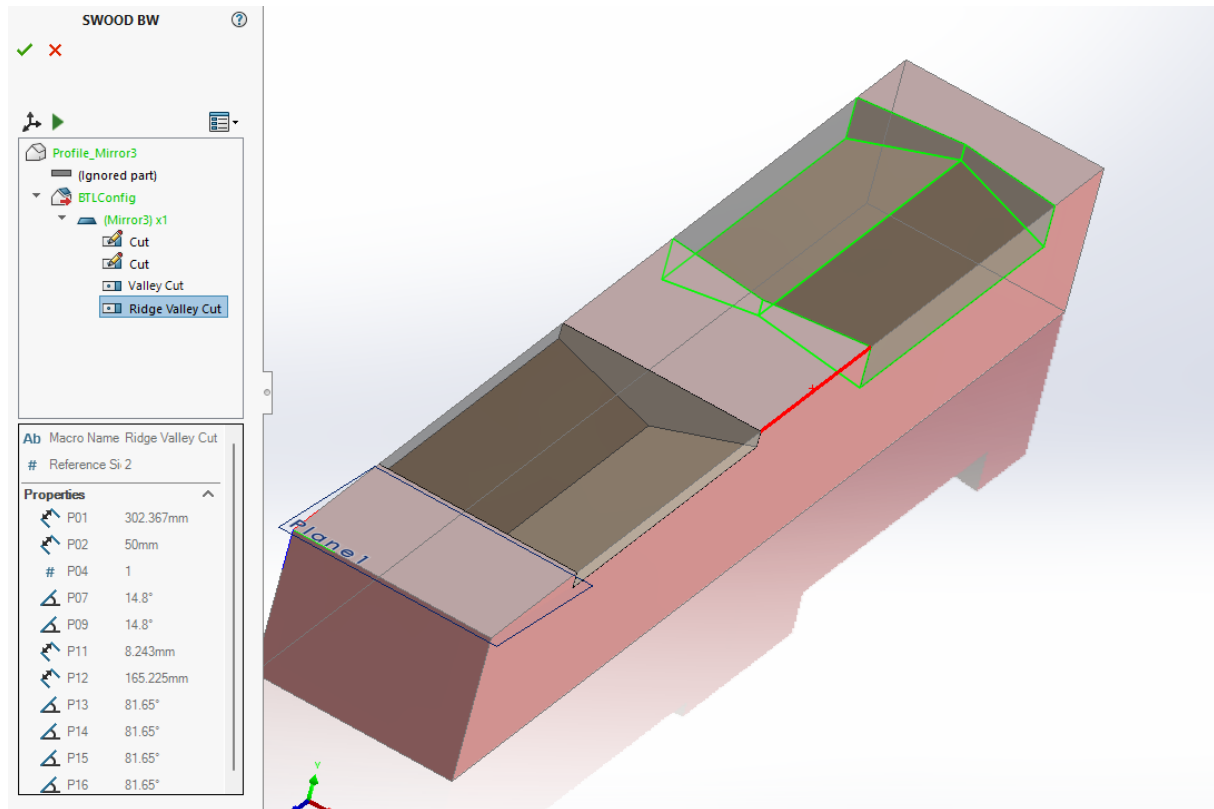
for notches,



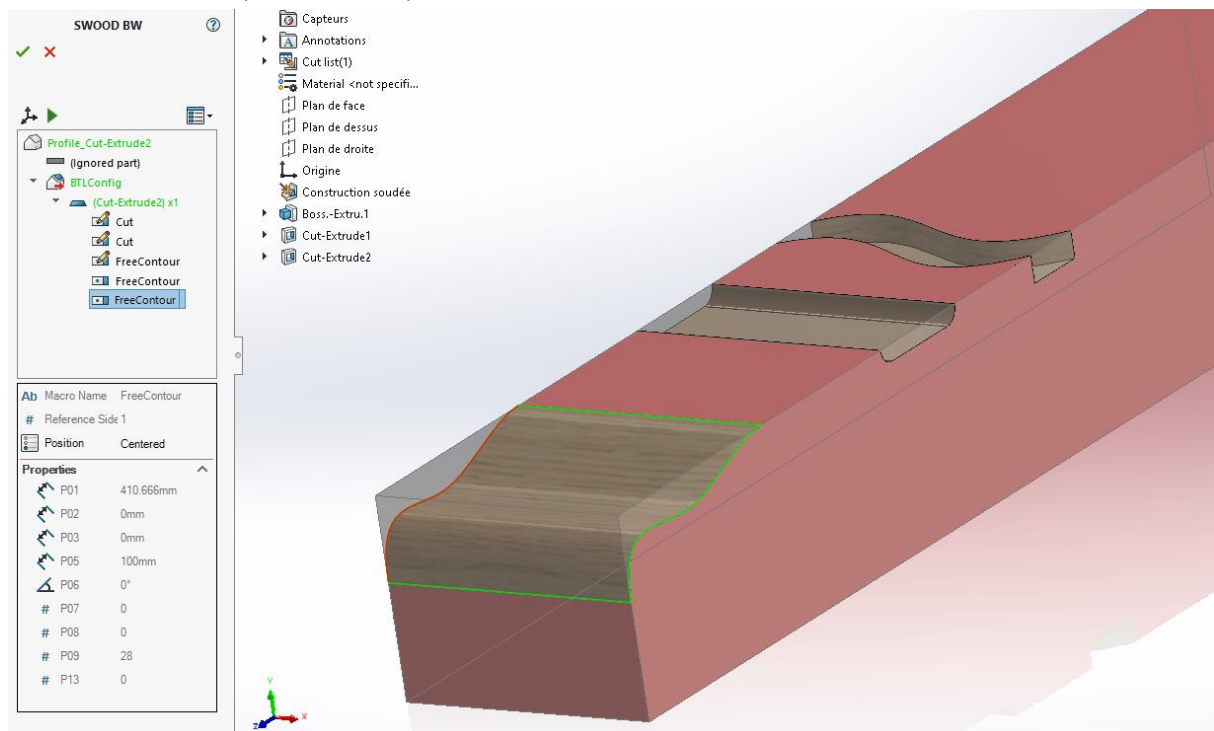
For Cuboid pocket,



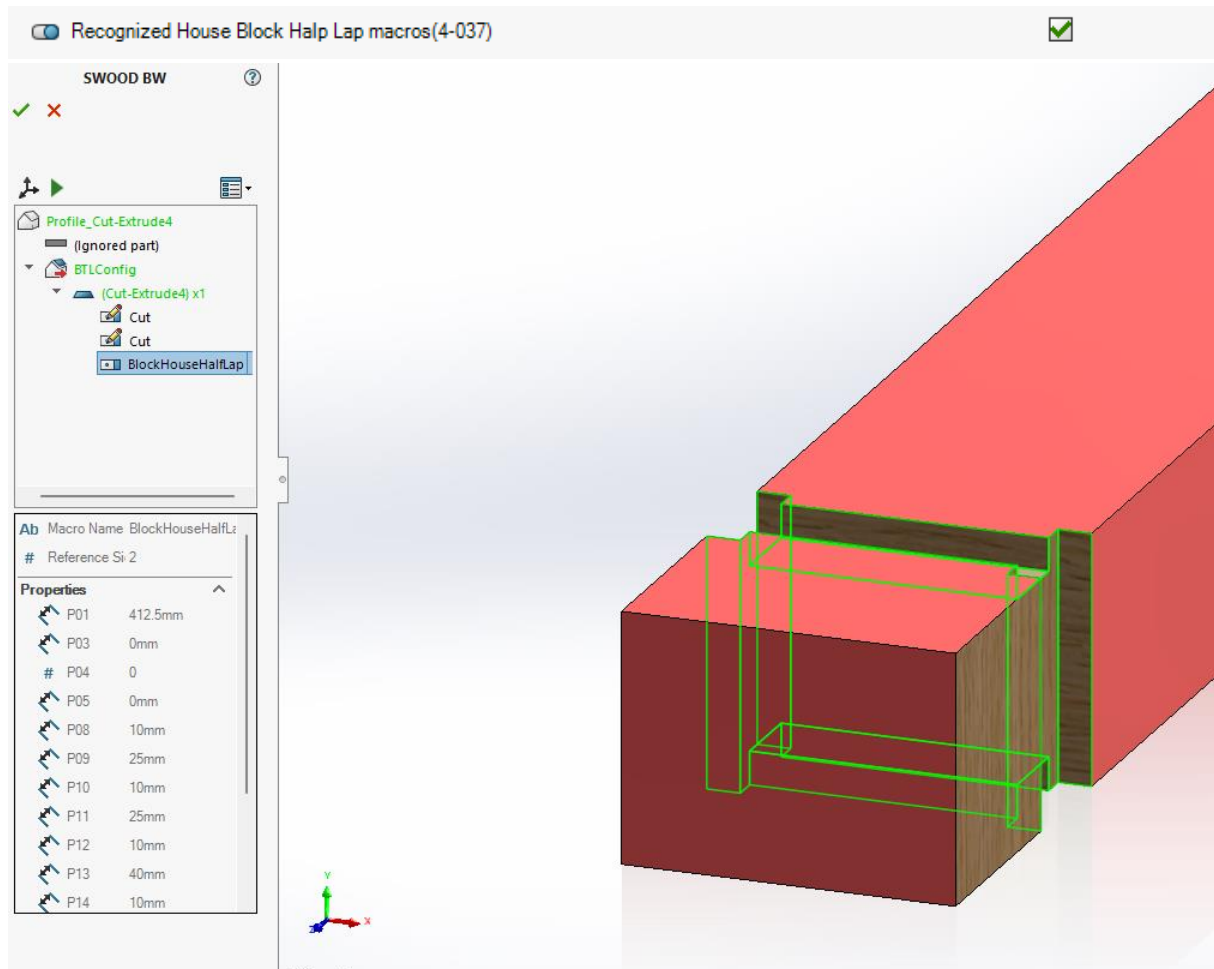
17. Ridge Valley Cut (0-012-X)



18. FreeContour (0/3/4-250-X)



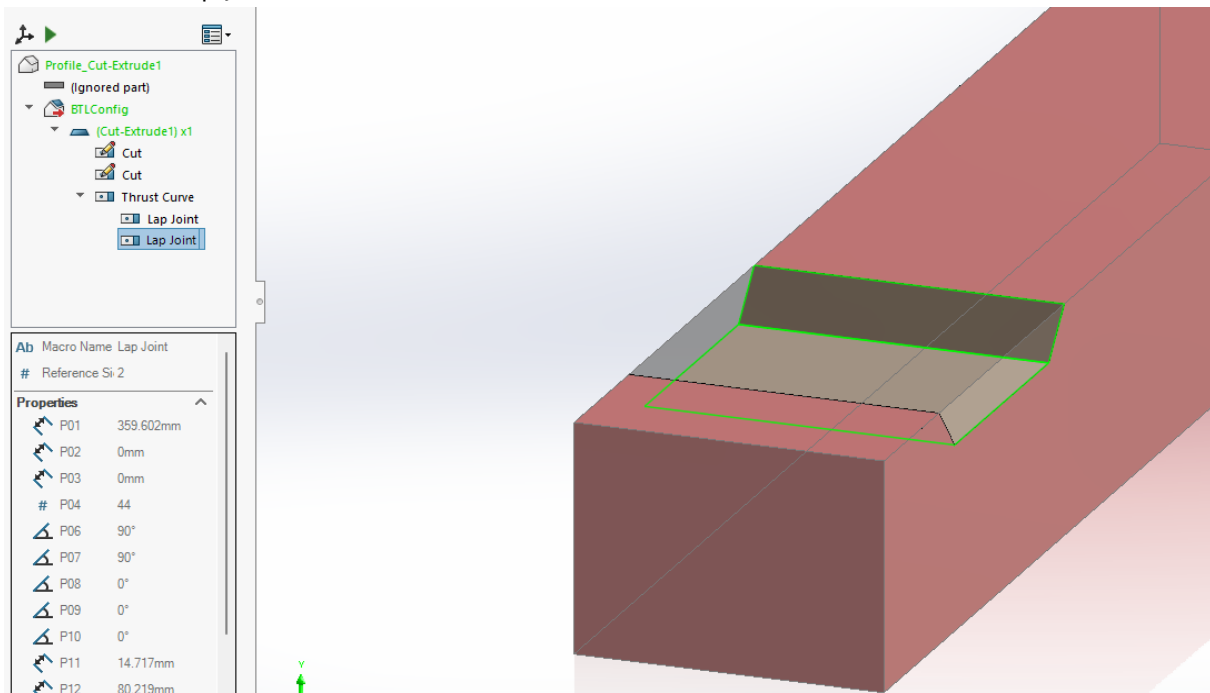
19. Block house Half Lap (4-037-X)



20. Special cases

Thrust Contour

Made with 2 lap joints.



Sawcut

Only used in a specific case

