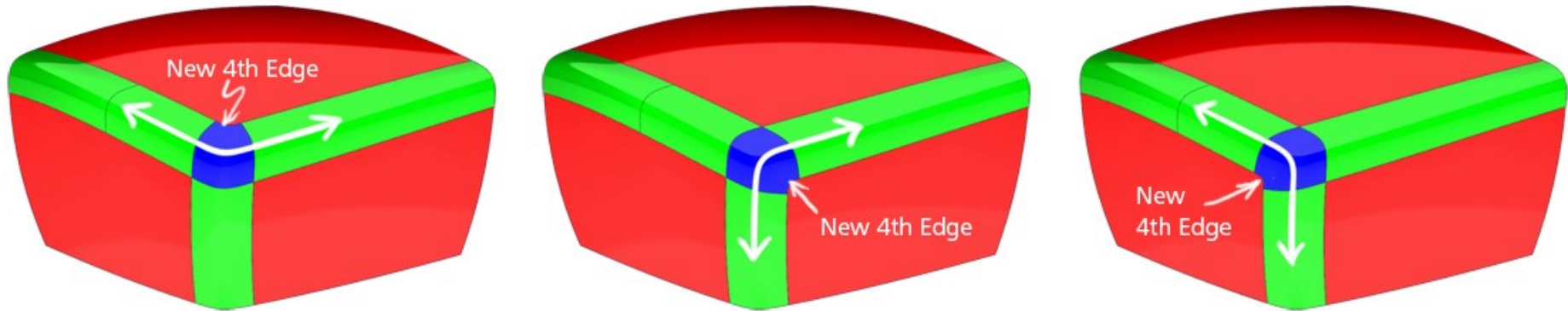
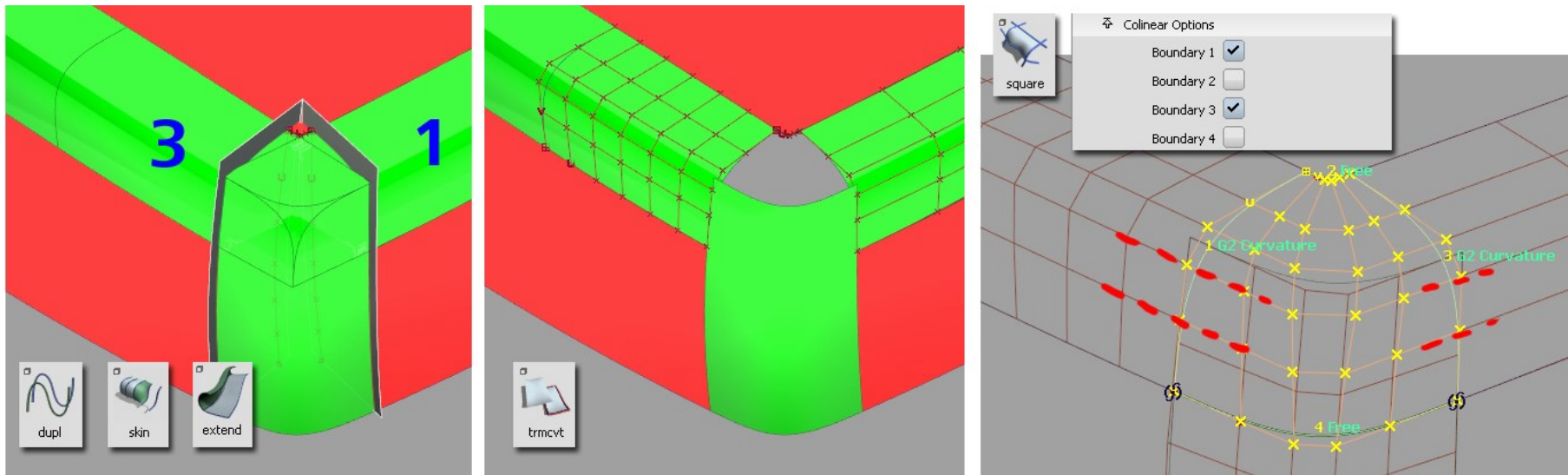


A3.15 : Ball Corner Part 1 – Square Surface

The corner blend looks like it needs to be a three-sided surface, but that would always give poor results. So the the patch layout has to be redesigned to include a fourth edge. There are three ways this could be achieved, look at the size of the fillets to decide on the flow of surfaces that would work best for your design:



First, good quality 'natural' boundaries are created, then the Square tool is used to create a blend surface that aligns with the hulls of the original 3 fillets:



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Time	Topic	Menu/Palette	Tool	Options
0.14	Looking at the Fillet sizes to determine where to create the 4th edge			
1.17	Creating the fourth edge	Curve Edit > Create	Curve Fillet	
2.48	Creating cutting surfaces to create edges 1 & 3	Surfaces > Skin Surfaces	Skin	
4.41	Trim convert the two fillets on the top edge	Surface Edit > Trim	Trim Convert	<i>3D Trimming</i>
5.40	Using a Blend curve to create the lower edge (2)	Curve > Blend Curve Toolbox	Create Blend Curve	
6.08	Aligning the CVs on the blend curve to the hulls on the vertical fillet			
7.10	Trim Convert the vertical fillet	Surface Edit > Trim	Trim Convert	<i>3D Trimming</i>
7.42	Analysis : All four boundaries are natural (not trimmed) edges			
8.00	Build the Square surface	Surfaces > Boundary Surfaces	Square	
8.34	Using Co-Linear options in Square	Surfaces > Boundary Surfaces	Square	Co-Linear
9.10	Using Boundary Blend sliders in Square	Surfaces > Boundary Surfaces	Square	<i>Boundary Blend</i>
9.45	Checking continuity on edges 1,2,3	Evaluation > Continuity	Surface Continuity	
9.54	Achieving continuity on edge 4 – moving CVs	Control Panel > Xform CV > Move	NUV	
11.44	Increasing the degree of the ball corner surface to achieve continuity			
12.08	Trim the top surface and evaluate the continuity			
12.35	Conclusion			