## Irregular Diamond Quick Help - for Templot 0.91c

Start off with two curves, one 2900 mm and the other 3900 mm :


Left click on Guide 1 and select copy from control from the popup menu. Use action $\rightarrow$ mouse actions: geometry $\rightarrow$ adjust plain-track length (F4), and adjust the length of the plain track until it is on the inside of the first vee:


Select main $\rightarrow$ store \& background (CTRL-V). Left click on Guide 1 and select copy from control from the popup menu. Then select geometry $\rightarrow$ peg positions $\rightarrow$ peg on joint (Ctrl-1). Use action $\rightarrow$ mouse actions: geometry $\rightarrow$ adjust plain-track length (F4), and adjust the length of plain track until it is on the inside of the second vee:


Select main $\rightarrow$ store \& background (CTRL-V). Left click on Guide 1 and select delete from control from the popup menu. Then select geometry $\rightarrow$ track centre-lines only:


Select main $\rightarrow$ store \& background (CTRL-V). Repeat the last 3 steps for Guide 2:


Repeat from here for the second half of the diamond. You might want to rename each of these templates; left click a template, and select rename... from the popup menu, and perhaps save your work.

Use template $\rightarrow$ new template (quick set)...(CTRL-Q) to create a B6 turnout; Use template $\rightarrow$ switch options... to change the switch to a BH or FB 9ft. straight heel switch. Use template $\rightarrow$ V-crossing options... to set the V crossing geometry to Curviform crossing. Left click on Guide \#2 and select peg/align tools $\rightarrow$ align control template over, and snake onto peg $\rightarrow$ facing - facing from the popup menu. Use action $\rightarrow$ mouse actions: geometry $\rightarrow$ snake through peg (6) to snake fine point of vee to where Exit \#1 and Exit \#2 cross:


Set geometry $\rightarrow$ peg positions $\rightarrow$ peg on FP (CTRL-4). Set action $\rightarrow$ F5 V-crossing angles $\rightarrow$ any angle and action $\rightarrow$ F5 sizing options $\rightarrow$ length locked. Use action $\rightarrow$ mouse actions: real $\rightarrow$ adjust turnout size only (F5) so that the vee of the turnout matches that of the crossing formed of Exit \#1 and Exit \#2:


Use main $\rightarrow$ store \& background (CTRL-V). Left click on the just stored template, and select rename from the popup menu to give the template the name of 4.27T-LH. Left click again on this template, and select wipe from the popup menu. Set geometry $\rightarrow$ peg positions $\rightarrow$ peg on datum (CTRL-0). Left click on Guide \#1 and select peg/align tools $\rightarrow$ align control template over, and snake onto peg $\rightarrow$ facing - facing from the popup menu. Use template $\rightarrow$ invert handing (CTRL-X) and use action $\rightarrow$ mouse actions: geometry $\rightarrow$ snake through peg (6) to snake fine point of vee to where Exit \#1 and Exit \#2 cross:


Set geometry $\rightarrow$ peg positions $\rightarrow$ peg on FP (CTRL-4). Set action $\rightarrow$ F5 V-crossing angles $\rightarrow$ any angle and action $\rightarrow$ F5 sizing options $\rightarrow$ length locked. Use action $\rightarrow$ mouse actions: real $\rightarrow$ adjust turnout size only (F5) so that the vee of the turnout matches that of the crossing formed of Exit \#1 and Exit \#2:


Use main $\rightarrow$ store \& background (CTRL-V). Left click on the just stored template, and select rename from the popup menu to give the template the name of 4.27T-RH. Left click again on this template, and select wipe from the popup menu. Use main $\rightarrow$ storage box... (CTRL-B) to navigate to 4.27T-LH, select copy to control template. Set geometry $\rightarrow$ peg positions $\rightarrow$ peg on FP (CTRL-4). Use action $\rightarrow$ mouse actions: geometry $\rightarrow$ adjust plain-track length (F4), and adjust the length of plain track until just the vee is visible. Use do $\rightarrow$ omit rails and joint marks...(CTRL-O) and remove all rails and joints except for the vee. Finally, unset geometry $\rightarrow$ track centre-lines:


Use main $\rightarrow$ store \& background (CTRL-V). Left click on the just stored template, and select rename from the popup menu to give the template the name of 4.27 Vee. Use main $\rightarrow$ storage box... (CTRL-B) to navigate to 4.27T-LH, select copy to control template. Set geometry $\rightarrow$ peg positions $\rightarrow$ peg on datum (CTRL-0). Use action $\rightarrow$ mouse actions: geometry $\rightarrow$ adjust plain-track length (F4), and adjust the length of turnout to extend just beyond the wing and check rails. Use do $\rightarrow$ omit rails and joint marks...(CTRL-O) and remove all rails and joints except for the main-road crossing rail and the main-road check rail. Use action $\rightarrow$ mouse actions: geometry $\rightarrow$ adjust blanking length (3) to length of crossing rail, and finally, unset geometry $\rightarrow$ track centre-lines:


Use main $\rightarrow$ store \& background (CTRL-V). Left click on the just stored template, and select rename from the popup menu to give the template the name of 4.27 Main wing/check. Use main $\rightarrow$ storage box... (CTRL-B) to navigate to 4.27T-RH, select copy to control template. Set geometry $\rightarrow$ peg positions $\rightarrow$ peg on datum (CTRL0 ). Use action $\rightarrow$ mouse actions: geometry $\rightarrow$ adjust plain-track length (F4), and adjust the length of turnout to extend just beyond the wing and check rails. Use do $\rightarrow$ omit rails and joint marks...(CTRL-O) and remove all rails and joints except for the main-road crossing rail and the main-road check rail. Use action $\rightarrow$ mouse actions: geometry $\rightarrow$ adjust blanking length (3) to length of crossing rail, and finally, unset geometry $\rightarrow$ track centre-lines:


Use main $\rightarrow$ store \& background (CTRL-V). Left click on the just stored template, and select rename from the popup menu to give the template the name of 4.27 Turnout wing/check. Use main $\rightarrow$ storage box... (CTRL-B) to navigate to $4.27 \mathrm{~T}-\mathrm{LH}$, select copy to control template. Set geometry $\rightarrow$ peg positions $\rightarrow$ peg on FP (CTRL-4). Use template $\rightarrow$ convert turnout to half diamond (CTRL-K). Set geometry $\rightarrow$ peg positions $\rightarrow$ peg on FP (CTRL4). Use action $\rightarrow$ mouse actions: real $\rightarrow$ adjust turnout size only (F5) so that the deflection point of the diamond matches that of the crossing formed of Guide \#1 and Guide \#2:


Use main $\rightarrow$ store \& background (CTRL-V). Left click on the just stored template, and select rename from the popup menu to give the template the name of 4.07T-RH; Left click on the just stored template, and select Wipe from the popup menu. Use do $\rightarrow$ omit rails and joint marks...(CTRL-O) and remove all rails and joints except main-road crossing rail and wing rail joints. Use action $\rightarrow$ mouse actions: geometry $\rightarrow$ adjust plain-track length (F4), and adjust the length of closure rail. Unset geometry $\rightarrow$ track centre-lines:


Use main $\rightarrow$ store \& background (CTRL-V). Left click on the just stored template, and select rename from the popup menu to give the template the name of 4.27 Main closure. Use do $\rightarrow$ omit rails and joint marks...(CTRLO) and remove all rails and joints except diagonal-road check rails. Use action $\rightarrow$ mouse actions: geometry $\rightarrow$ adjust plain-track length (F4), and adjust length of template to that of just the check rail. Use action $\rightarrow$ mouse actions: geometry $\rightarrow$ adjust blanking length (3) to adjust the blanking to just include the check rails:


Use main $\rightarrow$ store \& background (CTRL-V). Left click on the just stored template, and select rename from the popup menu to give the template the name of 4.27 Turnout K check. Use do $\rightarrow$ omit rails and joint marks...(CTRL-O) and remove all rails and joints except diagonal-road stock rail and K-crossing stock rail joints. Use action $\rightarrow$ mouse actions: geometry $\rightarrow$ adjust plain-track length (F4), and adjust length of template to that meet that of Exit \#1. Use action $\rightarrow$ mouse actions: geometry $\rightarrow$ adjust blanking length (3) to adjust the blanking to ensure the K crossing is visible:


Use main $\rightarrow$ store \& background (CTRL-V). Left click on the just stored template, and select rename from the popup menu to give the template the name of 4.27 Main stock. Use main $\rightarrow$ storage box... (CTRL-B) to navigate to 4.27T-RH, select copy to control template. Set geometry $\rightarrow$ peg positions $\rightarrow$ peg on FP (CTRL-4). Use template $\rightarrow$ convert turnout to half diamond (CTRL-K). Set geometry $\rightarrow$ peg positions $\rightarrow$ peg on FP (CTRL-4). Use action $\rightarrow$ mouse actions: real $\rightarrow$ adjust turnout size only (F5) so that the deflection point of the diamond matches that of the crossing formed of Guide \#1 and Guide \#2:


Use main $\rightarrow$ store \& background (CTRL-V). Left click on the just stored template, and select rename from the popup menu to give the template the name of 4.09T-RH. Left click on the just stored template, and select Wipe from the popup menu. Use do $\rightarrow$ omit rails and joint marks...(CTRL-O) and remove all rails and joints except main-road crossing rail and wing rail joints. Use action $\rightarrow$ mouse actions: geometry $\rightarrow$ adjust plain-track length (F4), and adjust the length of closure rail. Unset geometry $\rightarrow$ track centre-lines:


Use main $\rightarrow$ store \& background (CTRL-V). Left click on the just stored template, and select rename from the popup menu to give the template the name of 4.27 Turnout closure. Use do $\rightarrow$ omit rails and joint marks...(CTRL-O) and remove all rails and joints except diagonal-road check rails. Use action $\rightarrow$ mouse actions: geometry $\rightarrow$ adjust plain-track length (F4), and adjust length of template to that of just the check rail. Use action $\rightarrow$ mouse actions: geometry $\rightarrow$ adjust blanking length (3) to adjust the blanking to just include the check rails:


Use main $\rightarrow$ store \& background (CTRL-V). Left click on the just stored template, and select rename from the popup menu to give the template the name of 4.27 Main $K$ check. Use do $\rightarrow$ omit rails and joint marks...(CTRLO) and remove all rails and joints except diagonal-road stock rail and K-crossing stock rail joints. Use action $\rightarrow$ mouse actions: geometry $\rightarrow$ adjust plain-track length (F4), and adjust length of template to that of just the check rail. Use action $\rightarrow$ mouse actions: geometry $\rightarrow$ adjust blanking length (3) to adjust the blanking to just include the check rails:


Use main $\rightarrow$ store \& background (CTRL-V). Left click on the just stored template, and select rename from the popup menu to give the template the name of 4.27 Turnout $K$ check. Left click on 4.27 Main wing/check and select delete to the control. Use action $\rightarrow$ mouse actions: geometry $\rightarrow$ adjust blanking length (3) to adjust the length to near the joint mark. Left click on 4.27 Turnout wing/check and select delete to the control. Use action $\rightarrow$ mouse actions: geometry $\rightarrow$ adjust blanking length (3) to adjust the length to near the joint mark:


Left click the Exit \#1 template and select delete to the control from the popup menu. Use action $\rightarrow$ mouse actions: geometry $\rightarrow$ adjust plain-track length (F4), and adjust length of template to just meet the free end of the vee. Use main $\rightarrow$ store \& background (CTRL-V). Left check the Exit \#2 template and select delete to the control from the popup menu. Use action $\rightarrow$ mouse actions: geometry $\rightarrow$ adjust plain-track length (F4), and adjust length of template to just meet the free end of the vee. Use main $\rightarrow$ store \& background (CTRL-V). Use main $\rightarrow$ storage box... (CTRL-B) and delete all unused templates. Click hide box when done.


Note: the exit rails \#1 and \#2 might not line up directly with the appropriate stock rails at the vee. This can be accommodated during construction, or if it offends too much, duplicate the Exit \#1 and Exit \#2 and make these longer (into the diamond), and omit the appropriate rails.

Repeat for $2^{\text {nd }}$ half of diamond - generally the same, only the handing of the initial turnouts will be different, and align control template over, and snake onto peg $\rightarrow$ facing - facing will generally by align control template over, and snake onto peg $\rightarrow$ facing - trailing, and vice-versa:


The following templates should have their timbering shown: 4.27 Main wing/check, 3.86 Main wing/check, 4.27 Main closure and 3.86 Main closure. The style should be equalized - constant with timbers centralised. Although you might want to double check with your chosen prototype company for exact timbering data.


