Deleting a Junction
Cross Section Example

The following procedure may be followed to remove a junction from an HEC-RAS plan. The step-by-step instructions included below are based on the example cross section data set describing the XS JT 01 CHECK-RAS message.

Delete the old junction:
1. Click the "Geometric Data" button from HEC-RAS main window.
2. Click the "Junct." Button.
3. Please note the length across the junction for different Rivers and Reaches in the Junction Data window. Click "OK" to close the screen.
4. In this example, the length of the junction across River 1 – Reach 1 to River 1 – Reach 2 is 200 feet, the name of the junction is Junction 1.
5. In the Menu Bar, select "Edit->Delete Junction…"
6. Double click the Junction that you wish to delete in the Delete Junction window.
7. Click "OK".
8. For this example, the dialog box with the statement, "There are three or more reaches connected to the junction: Junction 1. The reaches will not be combined when this junction is deleted, are you sure you want to remove it?" will appear.
9. Click Yes.
10. In the Menu Bar, select "Edit->Move Object".
11. In the Menu Bar, select "View->Zoom In".
12. Select the junction area with the zoom cursor.
13. Move the junction point of Trib1 away from the junction area.
14. Move the junction point of River 1 - Reach 1 over River 1 - Reach 2.
15. A dialog box will appear saying, "Enter a junction name to connect reaches "Reach 1" and "Reach 2"
16. Enter the name in the box, e.g. "JUNC2", and click ok.
17. Disable the move object by de-selecting the "Edit->Move Object" option on the Menu Bar.

Delete the newly created junction:
1. In the Menu Bar, select "Edit->Delete Junction…"
2. Select "JUNC2" in the Delete Junction window by double clicking it.
3. Click "OK".
4. For this example, the dialog box with the statement "Do you want to remove the junction "JUNC2"?" will appear.
5. Click Yes.
6. In the Menu Bar, select "View->Full Plot".
7. The Geometric Data window will now be displayed with one reach "Reach 2" for River 1. However, RS 3840 and 3919 are on the same line. Proceed with the following procedures to finalize the schematic plan.
8. In the Menu Bar, select "Tables->Reach Lengths…"
9. Replace 0 distance at RS 3919 with the distance between RS 3919 and RS 3840. In this case it is 200 feet. Add distance 200 feet in the LOB, Channel, and ROB columns at RS 3919.
10. Click "OK".
11. In the Menu Bar, select "Edit->Change Name".
12. Click on Reach 2, an input box will appear. Change Reach 2's name to "Reach 1". Click "OK".
13. Disable the change name option by de-selecting the "Edit->Change Name" option on the Menu Bar.
14. In the Menu Bar, select "Edit->Move Object".
15. Move Trib1 between RS 3919 and 3840 of River 1 to the same location as it was before.
16. Disable the move object by de-selecting the "Edit->Move Object" option on the Menu Bar.
17. In the Menu Bar, select "File->Save Geometry Data As…"
18. Give a new title to the revised geometric file (e.g. "Floodway without Junction").
19. Close the Geometric Data window.

Steady flow data:
1. Click the Steady Flow Data button from HEC-RAS main window.
2. The Steady Flow Data window will be displayed with River 1, Reach 1 with Q of 3000 at RS 4941 and Q of 5000 at RS 3840. For Trib1, Reach 1 the Q will be 1200 at RS 11708.

3. Click the "Reach Boundary Conditions" button.
4. The Steady Flow Boundary Conditions window will appear.
5. Click the Downstream box for Trib1, Reach 1, next click the "Normal Depth" button.
6. A dialog box will appear asking for the downstream slope for normal depth computation for Reach 1.
7. Enter the starting slope for Trib1, Reach 1 in the box, in this case, 0.004.
8. Click "OK".
9. Click "OK" in the Steady Flow Boundary Conditions window.
10. Click the "Apply Data" button in the Steady Flow Data window.
11. In the Menu Bar, select "File->Save Flow Data As…"
12. Give a new title to the revised flow file (e.g. "Floodway without Junction").
13. Close the Steady Flow Data window.

Steady flow analysis:
1. Click the Steady Flow Analysis button from the HEC-RAS main window.
2. The Steady Flow Analysis window will appear.
3. In the Menu Bar, select "File->Save Plan As…"
4. Give a new title to the new plan (e.g. "Floodway without Junction").
5. Click "OK".
6. A dialog box will appear. Enter the short plan identifier in the box, for example, FWNJ.
7. Click "OK".
8. Click the Compute button in the Steady Flow Analysis window.
9. Once the message "Program Finished Normally" appears, close the compute window.
10. Close the Steady Flow Analysis window.