

# Junction

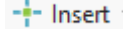
Junction nodes are points placed at the intersection of two or more pipes (intersections or tees). Junctions are used to represent points of water consumption or inflow, points where specific analysis values (e.g., pressure, concentration) are desired, and at points where pipe attributes (e.g., diameter, material) change. Junction nodes must have their elevation above datum (e.g., sea level) specified in order for pressure computations to be meaningful.

## How do I...

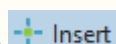
### Create a Junction?

To create a junction node, do the following:

Click on the **InfoWater Pro Ribbon** in the **Edit Group** using the **Insert Command dropbox** .


Select the **Insert Junction** icon from the **Insert Command dropbox** .



When the **Insert Junction** command is the active command it will be highlighted in Blue as shown: .


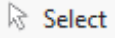
Once the command is initiated, select the location of the new node by clicking anywhere on the map display. Suggest a new ID and/or a description on the **Junction Identification** dialog box and click **OK** to accept the ID and create the junction. The junction should visually appear at the specified location. If the insert location is near an existing model pipe, the software will prompt you to insert the junction into that pipe. If you wish to split the pipe, the **Junction Identification** dialog box for the new junction and the new pipe will appear in a pop-up window.



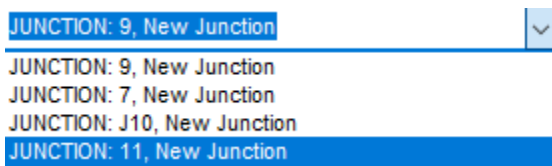
You can also use the **Digitize Network** icon  **Unknown Attachment** from the **Insert Command dropbox** to create a pipe and node network on the fly. Once digitized, you are able to add relevant modeling data in the **Model Explorer - Attribute Tab** window or via the **DB Editor**.

### Edit a Junction?

**Graphic Selection** - To select a junction node for data edit do one of the following:

Choose the Select icon  from the **Model Explorer - Attribute Tab** window and click on the specific Junction or select the **InfoWater Pro Ribbon** in the **Edit Group** using the **Select** icon .

If a Junction has been prior selected and is a part of the **Browse history**, it can be re-selected by choosing it from the **Browse-History** section of the **Model Explorer - Attribute Tab** window.

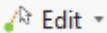





**Data Edit** - To edit the data related to a junction, first select the junction using the tools above. Once selected, edit Junction related data by adding /modifying the fields in the **Model Explorer - Attribute Tab** window. Additionally modifications may be done by editing the DB Tables that may be





accessed from the **InfoWater Pro Ribbon** in the **Edit Group** using the **DB Editor** icon.

**Graphic Edit** - To edit the node graphically do one of the following: From the **InfoWater Pro Ribbon** in the **Edit Group** using the **Edit Command**

**dropbox** icon  select the **Move Node** command  from the drop-down menu list. Click on the mouse and hold the left click down on the junction to select it. With the junction is highlighted, move the node to the desired position and left mouse click. Once in the desired location, release the left mouse button and the node location will be updated to the new location.


 When the **Move Node** command in the **InfoWater Pro Ribbon** in the **Edit Group Edit Command dropdown** is the active command it will be highlighted in Blue as shown: .



 If you have not enabled the **Auto Length Calculation** checkbox  **Auto Length Calculation** from the **InfoWater Pro Ribbon** in the **Project Group** using the **Preferences** icon  **Preferences** and the **Operations tab**, all pipes connected to a node moved will not have their lengths automatically changed.

## Edit the data for a group of Junctions?




Group edits can be made by either creating a domain or by creating a selection.

*Using the Domain Manager* - Create a domain selecting the specific junctions that you want to edit. Refer to the section on **Domain Manager** for details on



the domain creation process. Once the domain has been created, choose the **InfoWater Pro Ribbon** in the **Edit Group** using the **DB Editor** icon . Depending on the data you want to edit choose the appropriate table type from among the different database tables. Choose  **Domain** as the **Data Scope** and click on **OK**.


*Using the User Selection* - Select choose the **InfoWater Pro Ribbon** in the **Edit Group** using the **DB Editor** icon . Depending on the data you want to edit choose the appropriate table type from among the different database tables. Choose as the **Data Scope** and choose the **User Selection**  command. This places the software in User Selection Mode. In InfoWater Pro, the Selected elements will be in a **cyan** color. Once all of the desired junctions are selected, **right click** and choose **Enter** to access the DB Tables for the selected junctions.




Once the specific tables have been opened with the desired scope, enter data one cell at a time or Block Edit data to make changes in bulk to multiple cells.

 **Group Editing** for certain specific features may also be done by choosing the **Group Editing** icon  **Group Editing** or the **Edit Domain** icon  **Edit Domain** under the **InfoWater Pro Ribbon** in the **Edit Group**. Refer to the sections on **Group Editing** and **Edit Domain** to learn more.

## Delete a Junction?

To delete a junction, select the **Delete Node** option  **Delete Node** in the **InfoWater Pro Ribbon** in the **Edit Group Edit Command dropdown**. Select the node to be deleted and InfoWater Pro prompts you to confirm deletion (if the **Delete Confirmation** checkbox  **Delete Confirmation** is checked in the **Operation Settings tab** in the **Preferences** settings .

The active selected junction in the **Model Explorer - Attribute Tab** window may also be deleted by selecting the **Delete** icon  with the InfoWater Pro prompt to confirm element deletion.

 All pipes attached to the Junction being deleted will also be deleted if the **Auto Pipe Delete** checkbox  **Auto Pipe Delete** is checked in the **Operation Settings tab** in the **Preferences** settings  **Preferences**. The Junction and associated pipes are deleted and saved in the InfoWater Pro recycle bin and can be recalled from the database using the **Model Explorer - Command Center Tab** from the **Utilities -> Recall (node or Pipe) command**. However, if **Auto Database Packing**  **Auto Database Packing** is checked (**Operation Settings tab** in the **Preferences** settings  **Preferences**), then any element deleted is permanently deleted from the database and cannot be recalled. Deleted elements can be recalled until the **Pack** and then **Clean** commands (found in the **Model Explorer - Command Center Tab** from the **Utilities Database** menu list) are completed which removes deleted element ID's from the database.

## Recall a deleted Junction?

To recall a deleted junction, go to **Model Explorer - Command Center Tab**, then go to **Utilities -> Recall**, and select the **Node** command. In order to perform the recall, you must know the ID of the junction that was deleted. You may choose the **Show Deleted Node** command to obtain a list of nodes deleted from the InfoWater project but saved in the InfoWater recycle bin. Deleted elements can be recalled until the **Pack** and then **Clean** commands (found in the **Model Explorer - Command Center Tab** under **Utilities Database** menu list) are completed which removes deleted element ID's from the database permanently.