# Table Slot Plotting: Vertical Distance Entity Axes Default Override RiverWare 5.2

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This document describes an enhancement to RiverWare 5.2 which allows the user to conditionally override the default assignment of Table Slot columns to the X and Y Plot Axes. This is relevant specifically for *two-column* Table Slots.

### 1.0 Overview

In RiverWare, when plotting a *two-column Table Slot*, the numeric values from first column are plotted along the horizontal ("X") axis, and the values from the second column are plotted along the vertical ("Y") axis.

When plotting a Table Slot with *more than two columns*, the user has the opportunity to pick particular columns for the two plot axes. No such configuration is available for two-column Table Slots.

A new feature has been developed to optionally (i.e. enabled by the user) automatically reverse the plot axis for two-column Table Slots when the first column represents a vertical distance, such as "Elevation" or "Head".

The enabledness of this feature is associated with the RiverWare model file rather than with user-login based configuration. Note that this differs from other preferences related to plot configuration -- those are generally stored as user-login based configurations.

K Birch.Elevation Volum... Edit Row Column View Adjust Elevation Volume Table Value: 695 ft **Pool Elevation** Storage ft acre-ft n 0 695 2 🕻 Plot - 🗆 🗙 841 File Edit Graph Data Window 3417 🤳 Q Q 1 🚺 » 🔺 💌 🗮 +· cə 🏪 🦛 🛶 5857 9191 140000 13486 120000 19220 24721 100000 acre-ft 31752 80000 60000 40201 50052 40000 59030 20000 61475 n 74727 680 700 720 740 800 760 780 88330 ft 105200 Birch. Elevation Volume Table (Pool Elevation × Storage) 124400

The automatic switching of plot axes is applied at the time of creation of the plot -- so changing the enabledness of this feature does not effect plots already created and saved with a RiverWare model file.

## 2.0 Configuration

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Automatic placement of the "vertical distance entity" Table Slot column (for two-column Table Slots) -- as an override of the default Table Slot column axis assignment -- is enabled via **Default Axis Settings** accessible from the **Plot Dialog Settings** dialog.

Even though this configuration setting is operated from the Plot Dialog, the effect of this setting applies only to plots created in the future -- it does not effect the assignment of Table Slot columns to plot axes in any existing plots.

To view or modify this setting, in any **Plot Dialog**, click on the **Edit menu's Preferences**... item. *See image to the right*. This brings up the Plot Dialog Settings dialog ....

Dialog Settings dialog			
Plot Dialog Settings	? 🗙		
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Default Grid	Settings		
Default Backgroun	nd Color		
Ok App	ply Cancel		

File Edit Graph Data Window Curve Configuration... Marker Manager... Set Plot Title... Set Background Color... Grid Configuration... Axis Configuration... Preferences... 40000.00

In the Plot Dialog Settings dialog, click the **"Default Axis Settings..." button.** This brings up the **Axis Default Configuration Settings dialog**.

The setting is represented by the **"Override"** checkbox shown below:

🕻 Axis Default Configuration Settings 💦 🛛 🥐				
-Numeric Display				
Format	Decimal	~		
Precision	2	*		
- Tick Marks				
Max Major Ticks:	8	*		
Max Minor Ticks:	5	*		
- Two-Column Table Slots: Plot Axes Assignment				
Normally, for two-column table slots, column-0 values are placed on the horizontal axis, and column-1 values are placed on the vertical axis.				
Override: Place vertical length values (elevation ✓ or head) on vertical axis for appropriate table slots, such as the Elevation Volume Table.				
Ok Apply Cancel				

## 3.0 Axes Mapping Override Effect

If this feature is enabled, the standard mapping of two-column Table Slot columns to the plot axes is reversed on *certain* Table Slots.

Standard Mapping of Two-Column Table Slot Columns to Plot Axes:

- Column-0 (first column) -- X axis
- Column-1 (second column) -- Y axis

Override Mapping of Two-Column Table Slot Columns to Plot Axes:

- Column-0 (first column) -- Y axis
- Column-1 (second column) -- X axis

The plot axes reversal will occur if the following criteria are true:

- Column 0 is determined to be a "vertical distance", *and*:
- Column 1 is determined to NOT be a "vertical distance"

A Table Slot column entity is regarded as a "vertical distance" if both of these are true:

- The RiverWare unit type of the column is LENGTH, and:
- The column label is blank OR the column label contains the substring "ELEV" or "HEAD", in either upper case, lower case or mixed case.

In the two images below, the image on the right depicts an axes reversal as a result of this feature.



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