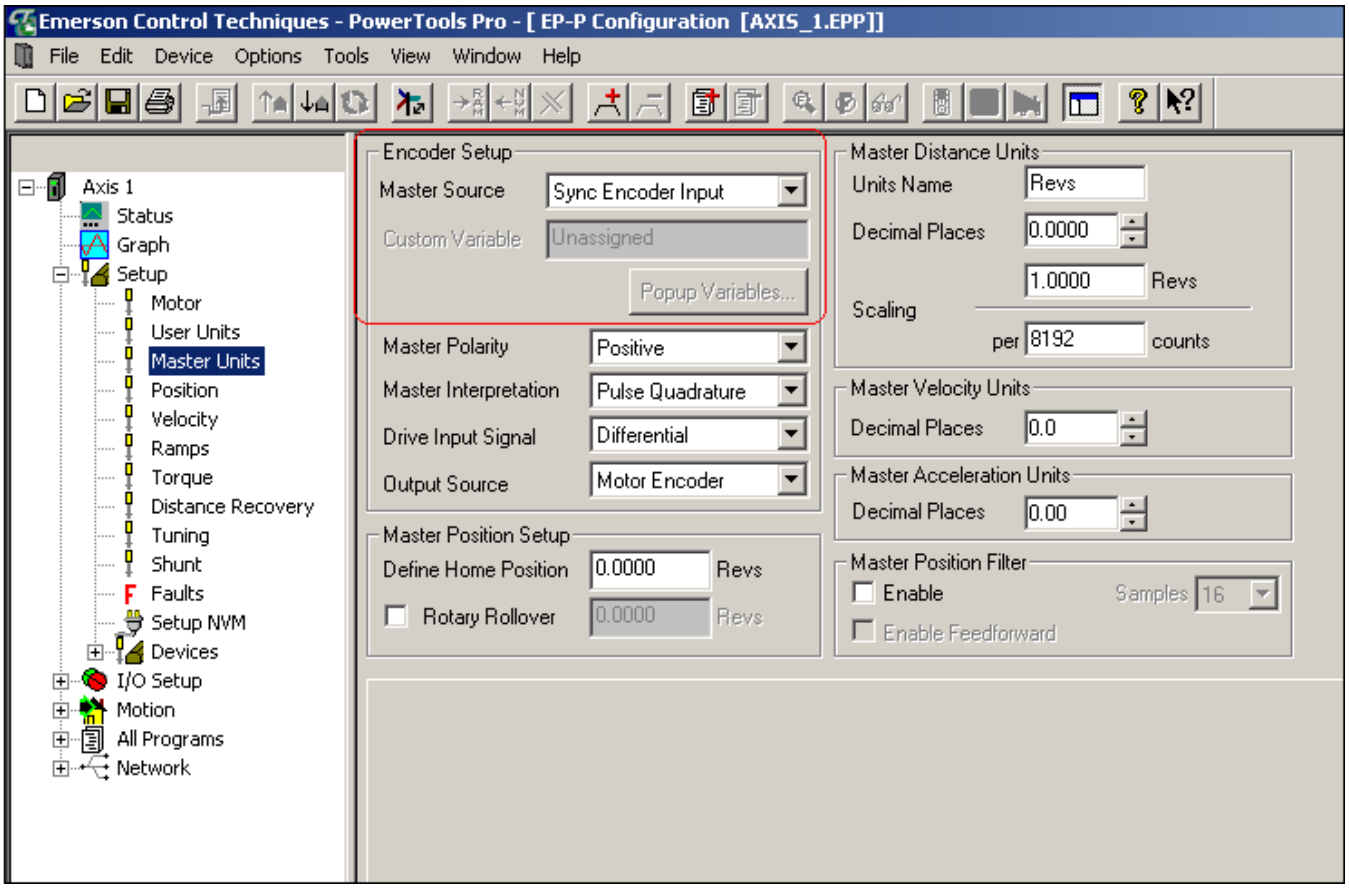
Using Alternate Master

Objective

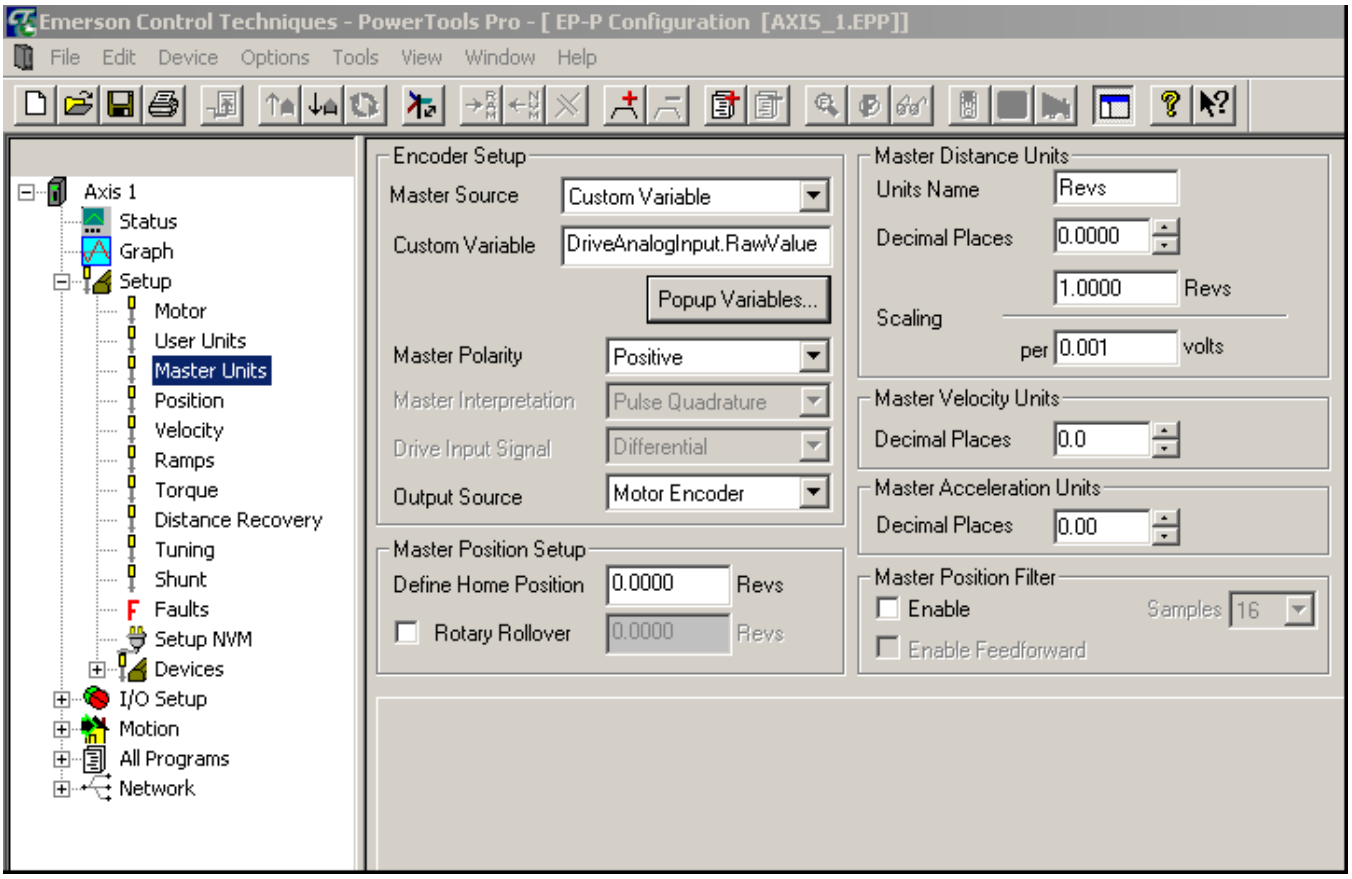
Explain how to set up alternate master for ep-p and ez-motion module.

Overview

With the Release of 4.4 PowerTools, the master source can be set to any registry parameter as well as any sp-drive parameter for the ez-motion module. Note below the new Encoder Setup selections.



If the Master Source is set to Sync Encoder Input, everything operates as it always has. But, if it is set to a parameter, the Custom Variable selection box becomes un-greyed allowing the selection of a registry parameter. Also, the denominator for the scaling now has a decimal place equal to that of the selected registry parameter and the units of that parameter as well if applicable. Note below, the selected parameter is the raw voltage of the analog input. Note that the Scaling numerator now has three decimal places and the units of volts.



For the EZ-Motion module, the following is set for the standard use.

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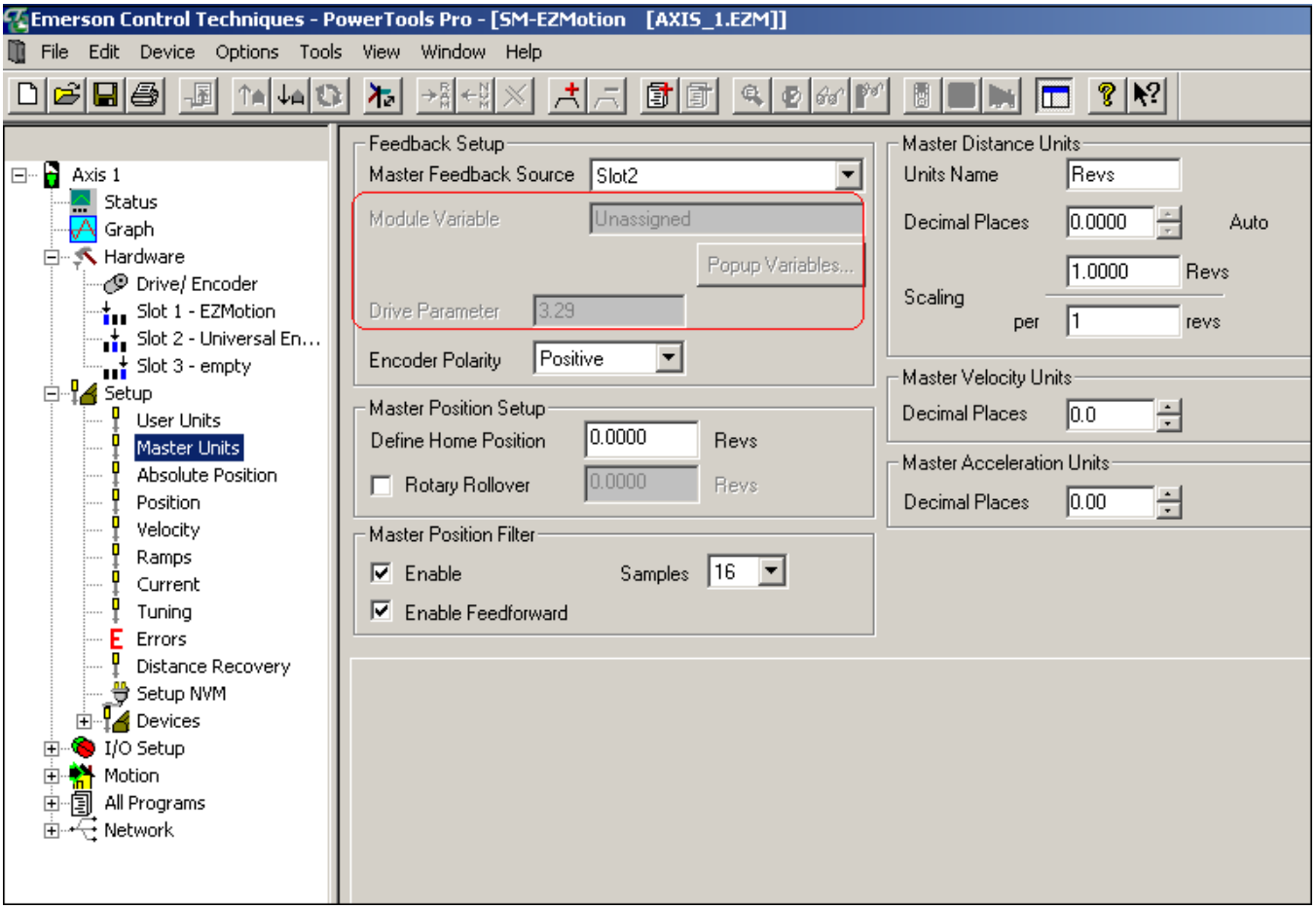

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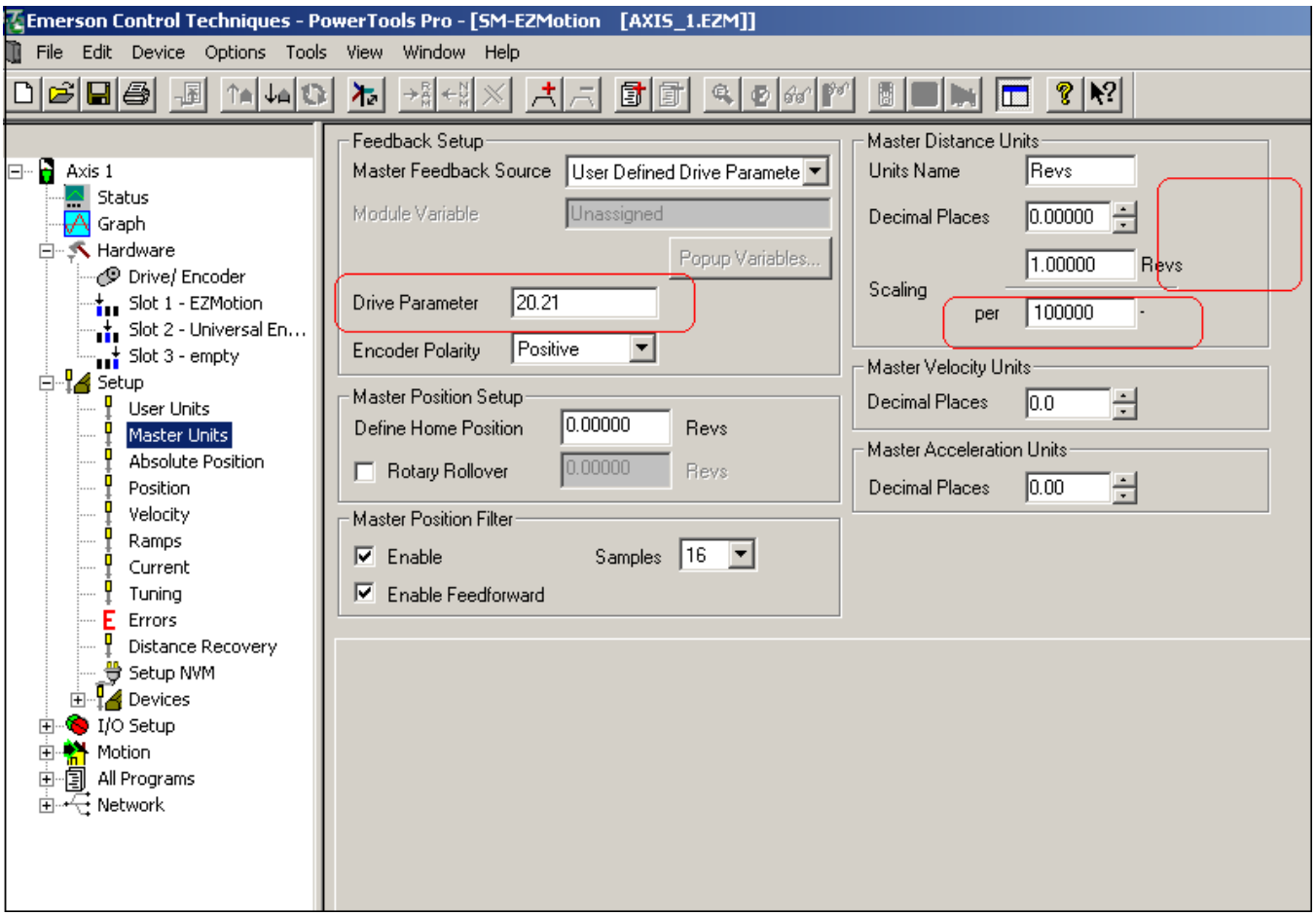
The ez-motion module can be set to a registry parameter as the ep-p. But, it can also be set to use a drive parameter as shown below. Note that drive parameter is 20.21. Also note that the automated decimal point feature is disabled. (It is disabled for a registry parameter as well.)



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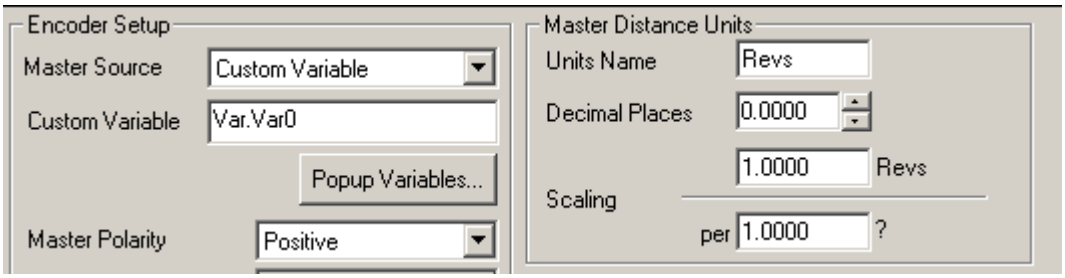
Example

The goal for this example is to have the master source be a user variable. We will use user variable zero and set it to have a decimal place of four. We will set the scaling such that one master rev is equal to a value of one for the user variable. Below shows the set-up for this example. Note that because user variables do not have any unit value, a question mark appears after the numerator in the scaling.



In order to have a smooth running master, it must be updated every control loop. A possible way to update the user variable in this manner would be the real time program.

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