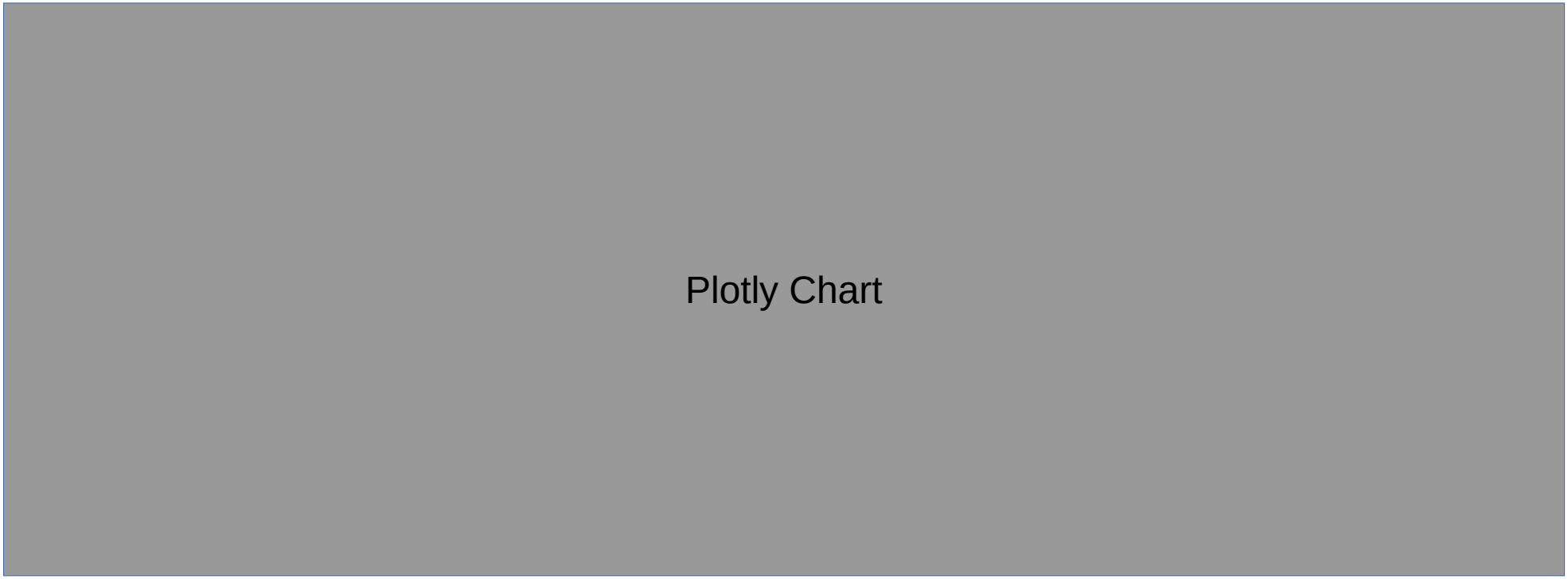
Possible Layout (side panel not shown)



(Select) Time range: ...

(Display) Amount of resource ‘wt’ consumed: X wt

Conversions:

From

X wt

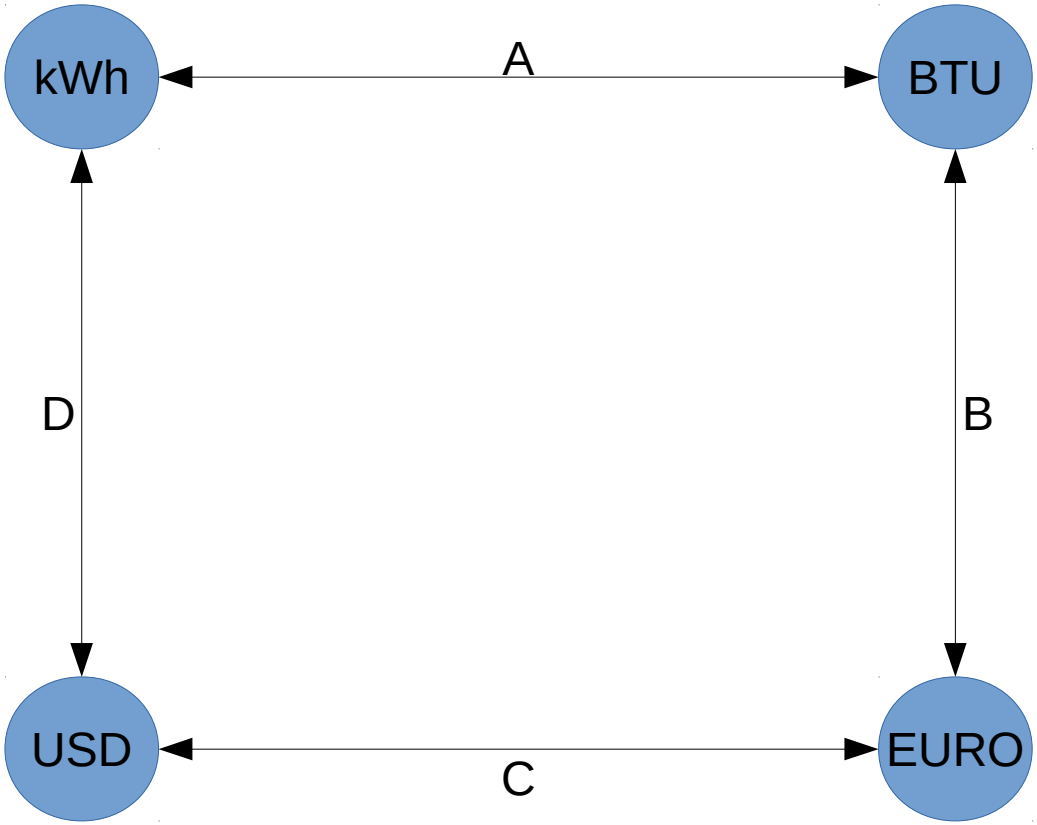
To

Display Possible Conversions (Units) ...

Output chosen conversion

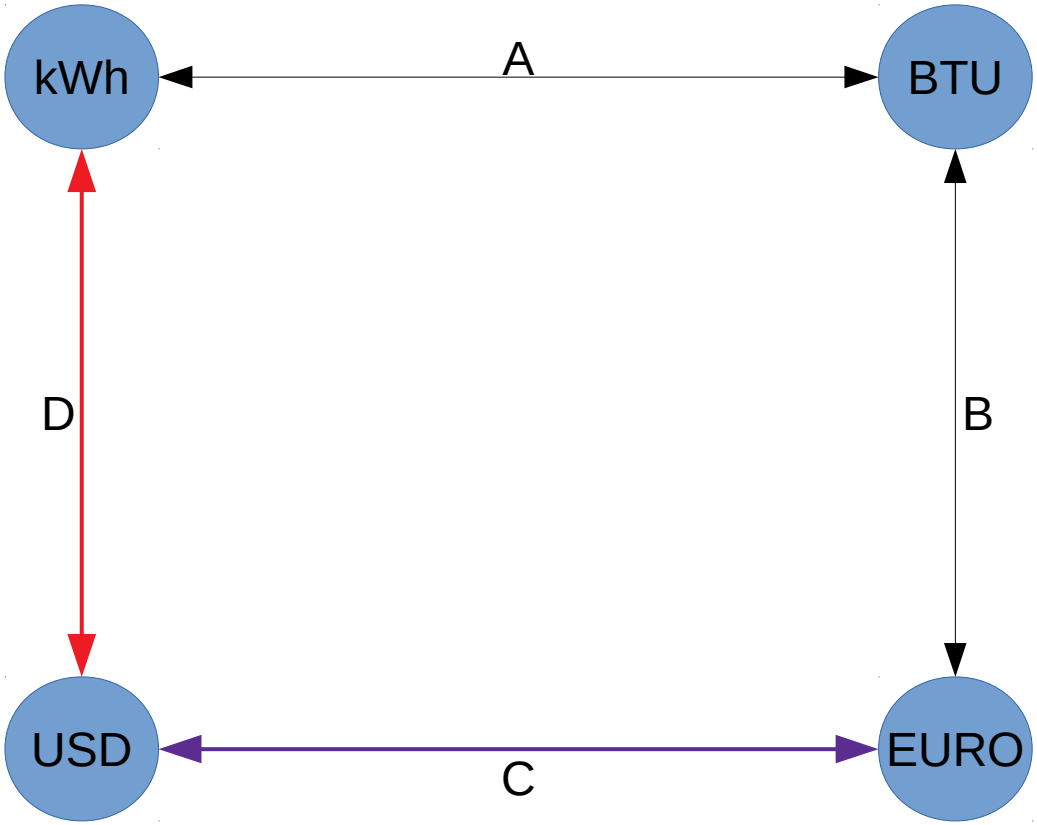
Footer

Documenting the problem with chain conversions.



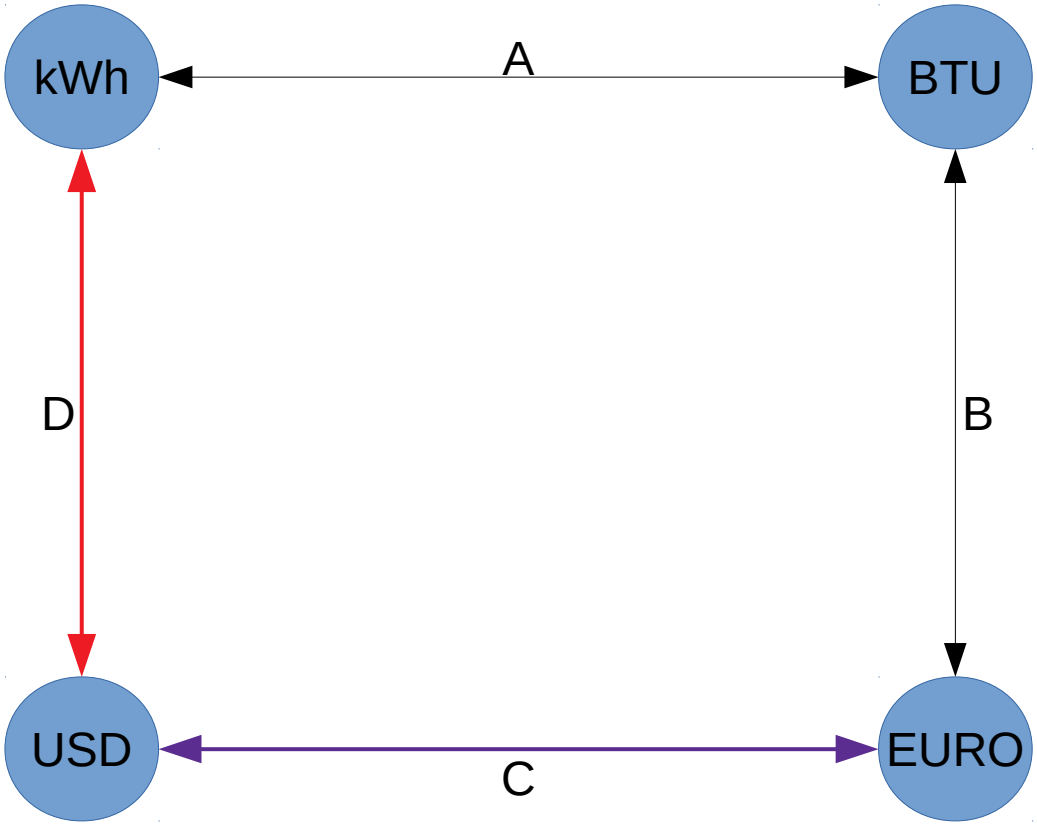
If we want a conversion from kWh to Euros, we want to our conversion, to take the path **DC rather than AB**. Similarly, if we want to convert from EURO to kWh, we ought to take the path **CD instead of BA**. The paths are the same; however, we have **different preferences** when it comes to conversions between resources.

Documenting the problem with chain conversions.



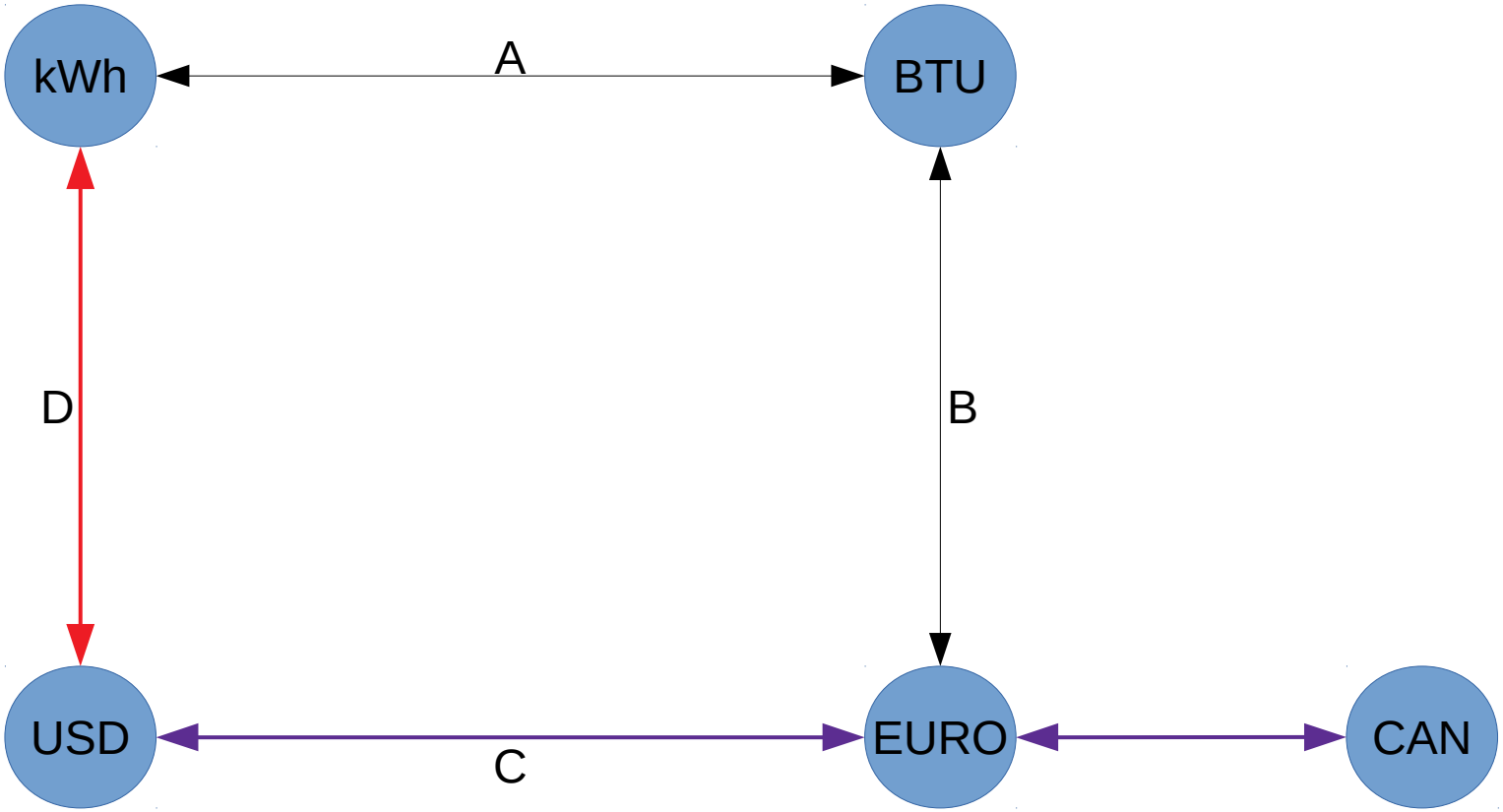
If we start from **currency** and convert from EURO to kWh, it makes more sense to **begin** the path **within** the currency dimension and to **end** the path as the **jump** between resources.

Documenting the problem with chain conversions.



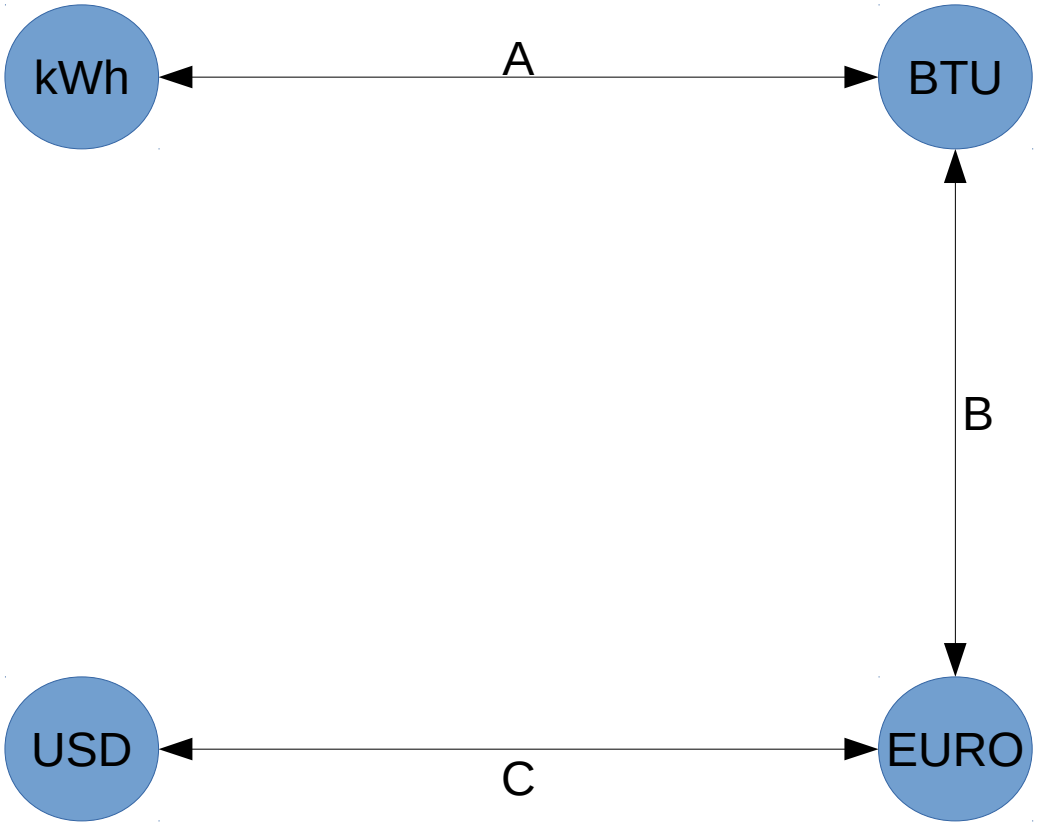
On the other hand, if we go from kWh to EURO, we want to **start** with the **jump** across resources instead of ending with it.

Documenting the problem with chain conversions.



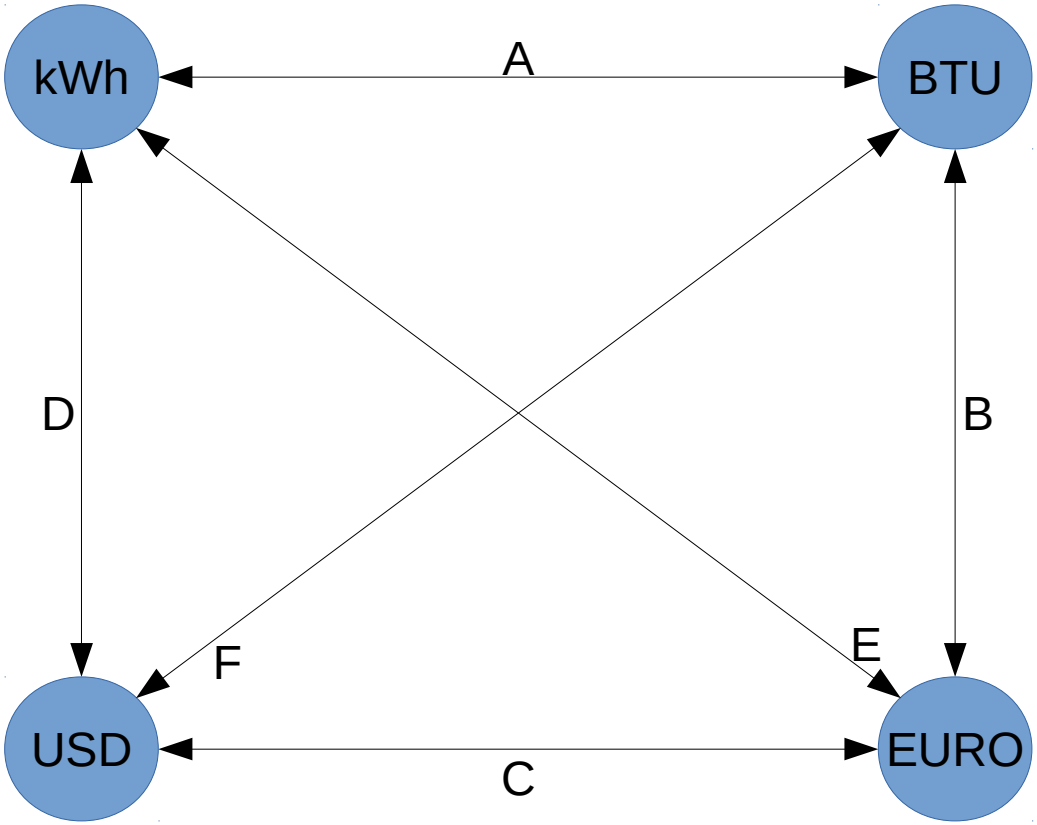
Here is another example of the ideal path when converting between CAN and kWh. Interestingly, the paths are identical for both directions.

Documenting the problem with chain conversions.



If there is no path D, then we want to reject any attempts to convert from kWh to currency and from currency to kWh.

Documenting the problem with chain conversions.



In this more complete example, we need to ensure that the conversion paths are consistent. For example, if we take the conversion from kWh to EURO, the paths DC and E need to be equivalent or there could be very strange and unexpected outcomes. One solution could be to enforce a limit the one path from one node to another dimension one path from a node to another dimension.