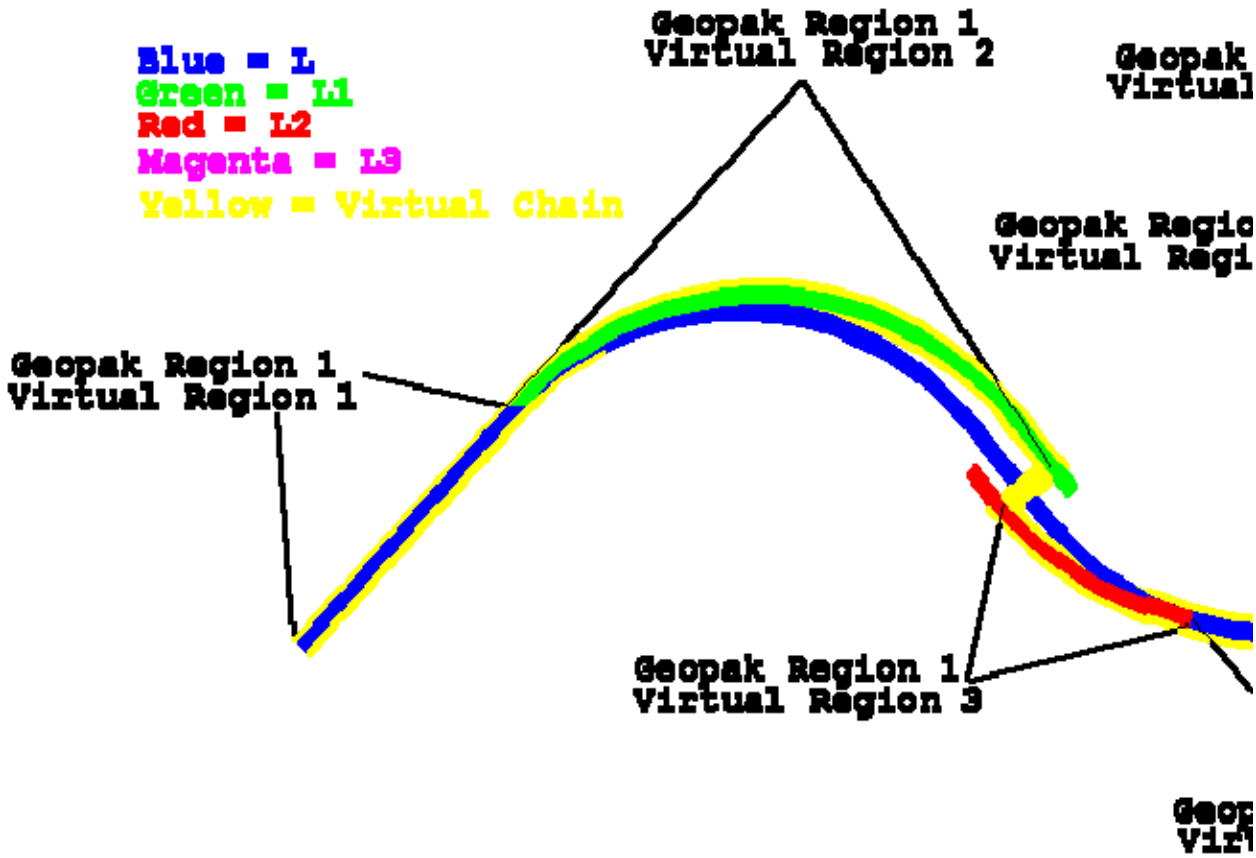
Virtual Chains and Regions

From the get-go, the author apologizes for the use of worn out terminology (virtual). But what else? If you got a better word, tell me!

In order for NCWedge to be able to design and utilize a single profile grade across multiple Geopak chains, there has to be a way to equate the stationing when switching from one Geopak chain to another.

The program uses a virtual design-grade alignment which can consist of any number of actual Geopak chains, in whole or in part. This virtual chain provides the program with a single continuous alignment for the entire length of the wedgng run, and is used and referred to as the DG chain.

In the example illustrated, there is a total of 4 Geopak chains. Portions of L, L1 and L2 and the entire chain L3 are used to define the DG chain. Also, notice that chain L3 has a Geopak station equation.



The DG chain begins with and follows Geopak chain L (Blue) to a point at which it changes to Geopak chain L1 (Green). At this point, NCWedge must create a virtual station equation between L and L1. The virtual region is now 2, while the Geopak region on L1 is still 1. A new virtual region is created each time the virtual alignment moves to a different Geopak chain.

Note that, at the equality on Geopak chain L3, the virtual region is incremented along with the Geopak region.