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David E. Brown and **Larry J. Langley***, University of the Pacific, Mathematics Department,
3601 Pacific Ave, Stockton, CA 95211. *Construction of k -interval orders*. Preliminary report.

Interval k -orders, $(V, <)$ are a modification of interval orders with the vertices partitioned into k classes having an interval representation with the following properties. Intervals of vertices of different classes are ordered in the usual way, with $x < y$ if and only if the interval of x is entirely to the left of the interval for y . Within a class, the intervals are proper, that is no interval is entirely contained in another, and $x < y$ if and only if the left hand point of the interval for x is to the left of the left hand point of the interval for y .

Interval orders may be constructed from their predecessor and successor sets. In this talk we look at a similar construction for interval k -orders, under certain partitions. (Received September 19, 2012)