**Score Partition Summary**

This code partitions observations into categories defined by numeric boundaries. Observations are REAL numbers at the interval level. Each partition boundary assignment set has an associated value called a “score” for that partitioning. This code finds observation boundaries such that the score is maximized.

The code presently using “maximum R2” as the score values, and finds partition boundaries that maximize that value. A brute-force search is used to find the scores.

**History**

The original “simplified” version of this code came from statistician Alan Bostrom in the late 1980’s while working at Iameter, and was written In Visual Basic. It was translated into C++ and somewhat optimized for production use. It was later translated to Java in the late 90’s. This is a Python version.

**Computational Equivalences used in the Maximization Process**

Categories are evaluated with respect to a “metric” to define the best selection. The “maximum R2” criterion is computed using these equivalences:

*SS Total = SS Within + SS Between*

*SSWithin = SSErrors=SSResidual*

*SSBetween = SSExplained*