

VECTOR PROCESSING FOR SEGMENTATION HASH VALUES CALCULATION

ABSTRACT

A system for segmenting an input data stream using vector processing, comprising a processor adapted to repeat the following steps throughout an input data stream to create a segmented data stream consisting a plurality of segments: apply a rolling sequence over a sequence of consecutive data items of an input data stream, the rolling sequence includes a subset of consecutive data items of the sequence, calculate concurrently a plurality of partial hash values each by one of a plurality of processing pipelines of the processor, each for a respective one of a plurality of partial rolling sequences each including evenly spaced data items of the subset, determine compliance of each of the plurality of partial hash values with one or more respective partial segmentation criteria and designate the sequence as a variable size segment when at least some of the partial hash values comply with the respective partial segmentation criteria.