

as "A": "AAGAAAGAGAAAAG". In this series, the differential pair for the first good candidate (from left to right) is (0,3) because it has no previous good candidate and there are 3 active candidates between the first good candidate and the second good candidate. Traversing the series from left to right, the differential pair for each
5 good candidate is as follows: (0,3); (3,1); (1,4); (4,0).

The main differential pair is determined by computing the differential pair of the target (step 214). For example, if the second good candidate were the target, then the main differential pair would be (3,1) because there are three active candidates between the target and the previous good candidate and one active candidate between
10 the target and the next active candidate.

Using the main differential pair, the target may be identified from the set of good candidates by searching triplets of good candidates for a good candidates having the same differential pair as the target (step 216). As each triplet of good candidates is searched, a counter may be incremented whenever an exact match is found (step
15 218) (i.e., whenever a triplet having the same differential pair as the target is found).

The series of good candidates having the same difference pair as the target is generally small, so a counter may be effectively used to identify the target from within the series. The counter value representing the ordinal location of the target within the set of good candidates having the same differential pair as the target uniquely
20 identifies the target (step 220).

Using relational differentiation encoding, a large target number may be represented using the following values: (1) the SSR record of the target; (2) the SSR record of the first armature of the target; (3) the SSR record of the second armature of the target; (4) the main difference pair; and (5) a counter representing the ordinal
25 location of the target within the set defined by the above values. Thus, the target number 34 may be represented by the following: (1) the target's SSR record "(6,2)"; (2) the first armature's SSR record "(1,1)"; (3) the second armature's SSR record "(2,2)"; (4) the main differential pair "(0,0)"; and (5) the counter "1".

The ordinal location specified by the counter may be calculated from the first
30 value within the set or from the last value within the set. In some implementations, an