

RAILER Sectioning Concepts

When you do a work plan and generate work, RAILER groups that work into segments, so you can prioritize and manage the work for each specific segment. This is why we call the segment the “management unit” in RAILER. Take for example the case of tie defects on a designated track that is several miles long. Because tie defects can occur frequently, we normally don’t record the station location of each and every defective tie on the track. So in a long track you will have a count of all the defective ties, but you may not want to replace all of these ties over the entire length of the track. Instead, you may only want to do tie work on certain portions of track that are most important to operations or portions of the track that are in particularly poor condition. In this case, segments can be used to break up a track several miles long into smaller management units. Each segment would have its own count of defective ties based off of the inspection, and a work plan could target individual segments to do repair work for. In addition, condition levels and track standards are computed for each segment, if a particular portion of track is broken out in segment, you will get specific condition data about that portion of track.

Typically, we recommend creating segment boundaries at switch points. In this way, a segment or management unit runs from turnout to turnout or from a turnout to designated end of track. If there is a long stretch between turnouts, one could segment at grade crossings, mile posts, etc. And when the rail diverges at a turnout, a new track is created. The following example figure below illustrates some issues with track designation and segmenting.

In this case, Track 1 goes from beginning at Station 0+00, through all three turnouts, and ends at ramp 1 at station 33+45. It has 4 segments (segment 1 goes from beginning to S1, segment 2 from S1 to S2, segment 3 from S2 to S3, and segment 4 from S3 to Ramp 1). Track 2 starts at the switch point of turnout S3 and goes to Ramp 2 at station 17+60. It has only one segment. Track 3 starts at the switch point of turnout S2 and goes to Ramp 3 at station 18+70. It has only one segment. Track 4 starts at the switch point of turnout S1 and goes to Ramp 4 at station 19+90. It has only one segment also.

