LcmsNet LCMethod Optimizer desired behavior

Multiple Columns:

Alignment steps

1. If previous method is on same column, move alignee methods start time to end of previous method start time, plus time padding. Realign versus all methods preceding previous method. E.g. Align Method4 vs method3, then Method4 vs method2, then method4 vs method1.
2. If previous method is on a different column but overlap not allowed, set alignee methods start time to end of previous method start time, without time padding. Apply this step to all
3. If on different columns and overlap allowed
   1. Set alignee method start time to start time of previous method in queue.
   2. Adjust for any device use overlap (e.g. moved down by start of device use + duration of device use, so method will start when device is no longer is use by the previous method).
   3. Repeat step b for all previous methods in queue.
   4. Repeat step c until no overlaps are found.

Single column:

1. Methods must start at end of previous method on column + time padding. Period

Truth table comparison of 2 methods, method 2 start time based on desired alignment behavior

|  |  |  |  |
| --- | --- | --- | --- |
| Column | Overlapping Event(s) | Pre/post overlap enabled | Start time of Method2 |
| Same | Yes | Yes | End of Method1 + padding |
| Same | Yes | No | End of Method1 + padding |
| Same | No | Yes | End of Method1 + padding |
| Same | No | No | End of Method1 + padding |
| Different | Yes | Yes | End of last found overlapping event |
| Different | Yes | No | End of Method1 + padding |
| Different | No | Yes | Same as Method1 |
| Different | No | No | End of Method1 + padding |