

---

Subject: Re: [railML3] Re: Signal combinations  
Posted by [Torben Brand](#) on Fri, 08 Mar 2024 08:57:34 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Both suggested models for signal combinations (with use of signalLL and signal IS) has its limitations and/or would need extensions. As a solution I suggest a third option, that is in line with the latest modelling decisions [2],[1] (also see attached illustration):

Options (1 and 2 as described in previous post):

1. As suggested in Jörg's example in Rome (also option 1 in previous post by Jörg)  
Signals are combined through reference from separate signalLL signals to signalS<isMovemetSignal> for the complete combination of signals. Missing <typeDesignator> in signalLL to declare the individual signals.
2. Use of todays model with combinations for minimum change. (also option 2 in previous post by Jörg)  
As option 3, but with empty <isMovementSignal> element and use signalLL@function to define the movement signal type with existing value interpretation.
3. Modelling principle where all physical aspects are in signalIS and all interlocking in signalLL. Make new @type attributes in <isMovemetSignal>. This is already an ongoing task. [1] Then the individual signals of the signals combination can be defined in signalIS and the combination made with the attribute signalIS@belongsToParent

Pro/con analysis:

I would recommend solution 3.

1. This would break with the principle that physical characteristics are in signalIS and also have the <typeDesignator> for signals at two different locations in the schema. Also "repeater" and "distant" are both signalLL@function values. So for a combination og repeater and distant (de:"Vorsignalwiederholer") you would need to deprecate the "repeater" value and add new attribute @isRepeater. So I would not recommend this solution
2. Same arguments as for solution A) except the need to make new <typeDesignator>. So I would not recommend this solution
3. Is in line with the decision [1] and [2] to have the physical aspects in signalIS and the additional interlocking attributes in signalLL and minimize new extensions (beyond those already agreed in <isMovementSignal>)

[1] [https://www.railml.org/forum/index.php?t=msg&th=899&goto=3201&#msg\\_3201](https://www.railml.org/forum/index.php?t=msg&th=899&goto=3201&#msg_3201)

[2] [https://www.railml.org/forum/index.php?t=msg&th=649&goto=3200&#msg\\_3200](https://www.railml.org/forum/index.php?t=msg&th=649&goto=3200&#msg_3200)

---

## File Attachments

1) [Signal combinations.pdf](#), downloaded 123 times

---