

Dear Susanne and other railML users,

>> In the trac ticket [2] I proposed the
>> following categories and ask for your approval/denial/addition:
>>
>> - speed,
>
> The main problem is that all "traditional signals" are more or less
> "switchable speed signals" for certain ranges.
>
> Maybe we can distinct between "pure fixed speed signals" and "switchable
> speed signals" with country-specific signal aspects.

As you mentioned in your example, it may look like this:

```
<speedSignal kind="announcement" switchable="false" speedChangeRef="sc1" />
```

All information about the country specific signal aspects are more connected with the operational view of the signal.

>> - etcs,
>
> * Fixed marker boards
>
> * light signals indicating a new movement authority (for ETCS level 1)
>
> * (level crossing signals), likely don't exist
>
> * no balises or balise groups, but they may transfer the "traditional
> signal aspect" as "speed restriction for a certain range".

Example:

```
<etcsSignal kind="execution" switchable="false" level="1" />
```

>> - levelCrossing,
>
> several kinds of signals for ringing the bell, whistle, announcing,
> activating the level crossing ...

Example:

```
<levelCrossingSignal type="whistle" />
```

>> - gsm,
>
> more general: trainRadio
>

- > * fixed train radio signals indicating a channel
- >
- > * fixed GSM signals indicating an GSM-R-equipped area, also the
- > negation indicating a non-GSM-R-equipped area, maybe with an
- > attribute to "enter"/"leave", also used for a "radio hole"

Example:

```
<trainRadioSignal switchable="false" type="enter" />
```

- >> - catenary
- >
- > * no catenary section
- >
- > * no current section / main power switch off
- >
- > * lower pantograph section
- >
- > * additional signal (de: ICE-Schaltmerkhilfe)

Example:

```
<catenarySignal type="lowerPantograph" />
```

- > - trainProtectionSystem
- >
- > * indication a block number (de: LZB-Blockkennzeichen)

Example:

```
<trainProtectionSystemSignal />
```

- > - line
- >
- > * indicating the line number

Example:

```
<lineSignal lineNumber="1234" />
```

- > - milepost (de:Hektometertafel)
- >
- > * indicating the mileage of a track, often fixed at a pole

Example:

```
<milepostSignal value="42.0" />
```

- > - braking
- >
- > * non-stopping section
- >
- > * no regenerative braking

>
> * no eddy-current braking
>
> * no magnetic-shoe braking

Example:

<brakingSignal type="nonStoppingSection" />

>> - signalingSystem

Use the <trainProtectionSystemSignal> instead.

Does this concept please everybody's needs at least for a railML 2.2?

Regards

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Christian Rahmig
railML.infrastructure coordinator
