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Subject: trainProtectionElement, ETCS and balises (was: trainProtection and equipmentUsage)

Posted by [Susanne Wunsch railML](#) on Tue, 27 Nov 2012 13:44:54 GMT

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Dear Christian, Andreas and others,

Christian Rahmig <coord@infrastructure.railml.org> writes:

> For railML 2.2 the infrastructure element trainProtectionElement  
> should be enhanced with a new parameter "trainProtectionSystem" with  
> the values of type tNationalSystemsType. The string parameter "system"  
> is then no longer needed and should be marked as DEPRECATED.

In the meantime the type 'tNationalSystemsType' was enhanced by the value 'ETCS'. As stated by Thomas Kauer at the railML-conference in Zurich the element 'trainProtectionElement' should be somehow harmonized with respect to ETCS.

That may be a goal for the next major release (3.0), but nevertheless we should clarify the current semantics.

```
<trainProtectionElement id="tp1" pos="10.0" trainProtectionSystem="PZB90" model="500Hz"/>  
<trainProtectionElement id="tp2" pos="460.0" trainProtectionSystem="PZ80" model="2000Hz"/>  
<trainProtectionElement id="tp3" post="455.0" trainProtectionSystem="ETCS"/>
```

\* PZB90, PZ80 and INDUSI60 are different hardware/software releases at the vehicle providing different functionality. The magnets next to the rail are the same. de:[1]

Another type for the infrastructure view at the train protection elements is needed.

\* What to do, if the value 'ETCS' is used? What does it mean?

If it's a balise, the appropriate element 'balise' or 'baliseGroup' should be used.

If it's a GSM-R zone, the new element 'trainRadio' should be used (attention: currently not implemented).

If it's a border of an ETCS-equipped zone the 'trainProtectionChange' element should be used.

What else?

Any comments appreciated.

Kind regards...  
Susanne

[1] [http://de.wikipedia.org/wiki/Punktfo%3B6rmige\\_Zugbeeinflussung](http://de.wikipedia.org/wiki/Punktfo%3B6rmige_Zugbeeinflussung)

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