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Subject: Re: Platform @belongsToParent and <ownsPlatformEdge>

Posted by [christian.rahmig](#) on Mon, 18 Feb 2019 15:12:07 GMT

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Dear Thomas,

Am 11.02.2019 um 18:11 schrieb Thomas Nygreen:

> [...]

> This assumes that the hierarchy is given, but the current  
> model allows doing this in multiple ways. Let's say we have  
> a symmetrical platform between tracks 1 and 2; 200 meters of  
> it is 5 meters wide, 0.76 meters high and made of concrete,  
> while the remaining 150 meters is older with gravel surface,  
> tapering off to 1 meters wide, 0.55 meters high. The  
> hierarchy can be:

>

> Either:

> Platform 1/2, length=350m

> |- PlatformEdge 1, length=350m

> | |- PlatformEdge 1a, length=200m, width=? (5m or 2.5m?),  
> height=0.76m

> | \- PlatformEdge 1b, length=150m, width=? (somewhere  
> between 0.5m and 5m), height=0.55m

> \- PlatformEdge 2, length=350m

> |- PlatformEdge 2a, length=200m, width=? (5m or 2.5m?),  
> height=0.76m

> \- PlatformEdge 2b, length=150m, width=? (somewhere  
> between 0.5m and 5m), height=0.55m

>

> Or:

> Platform 1/2, length=350m

> |- Platform 1a/2a, length=200m

> | |- PlatformEdge 1a, length=200m, width=? (5m or 2.5m?),  
> height=0.76m

> | |- PlatformEdge 2a, length=200m, width=? (5m or 2.5m?),  
> height=0.76m

> \- Platform 1b/2b, length=150m

> \- PlatformEdge 1b, length=150m, width=? (somewhere  
> between 0.5m and 5m), height=0.55m

> \- PlatformEdge 2b, length=150m, width=? (somewhere  
> between 0.5m and 5m), height=0.55m

>

> Or:

> Platform 1/2, length=350m

> |- PlatformEdge 1a, length=200m, width=? (5m or 2.5m?),  
> height=0.76m

> |- PlatformEdge 1b, length=150m, width=? (somewhere between  
> 0.5m and 5m), height=0.55m

- > |- PlatformEdge 2a, length=200m, width=? (5m or 2.5m?),
- > height=0.76m
- > \- PlatformEdge 2b, length=150m, width=? (somewhere between
- > 0.5m and 5m), height=0.55m

Option 1 is my favourite.

In case we want to remove the attribute @ownsPlatformEdge, the related platform edges have to reference their parent platform via @belongsToParent.

- >
- > Also, in all these examples, the lower levels of the
- > hierarchy can be skipped. There are also multiple ways to
- > assign <linearLocation>s: either all elements have them (and
- > platforms have one for each track), or only the lower levels
- > have them, or something in between.

I would expect platform edges to be modelled / located as linear elements, while a platform is more likely seen as an areal object. For operational purposes it is necessary to have linear coordinates (mileage values) for the platform edges.

- >
- > christian.rahmig wrote on Mon, 11 February 2019 15:29
- >> we need to think about alternatives of how to
- >> distinguish between
- >> platforms and platform edges.
- >>
- >> Alternative 1:
- >> Introduce a boolean flag in <platform>: @isPlatformEdge
- >>
- >> Alternative 2:
- >> Re-Introduce the functional infrastructure element
- >> <platformEdge>

Alternative 3:

<platformEdge> as child element of <platform>

In that case, a <platformEdge> cannot exist alone (without a platform).

- >
- > If we need or want a strict hierarchy, considering platforms
- > and platform edges as separate entities, then I think it
- > would make the most sense to have them as separate elements.
- > But do we really need to? I would rather keep using one type
- > and leave the hierarchy up to the writing system. One thing
- > we could do to make life a bit easier for the reading
- > systems is to introduce one semantic constraint: If
- > attributes describing a parent <platform> such as length and

- > height are given, they must include other <platform>s that
- > @belongsToParent.

I don't understand how you mean this, sorry.

- >
- > I see that, apart from <ownsPlatformEdge>, there is only one
- > other occurrence of "platformEdge" in the XSD, and that is
- > <stoppingPlace>@platformEdgeRef. Since platformEdge does no
- > longer exist, it is probably better to rename this to
- > @platformRef. The documentation can still specify that the
- > reference can be to a platform edge, in the form of a
- > <platform> element.

Agreed. A <stoppingPlace> can refer to the platform edge it belongs to also via @platformRef.

How about the idea from above: adding a boolean flag @isPlatformEdge to distinguish between a platform and a platform edge?

Best regards  
Christian

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