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Subject: Re: the use of @dir in railML.

Posted by [christian.rahmig](#) on Wed, 26 Feb 2020 10:05:44 GMT

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Thomas Nygreen wrote on Mon, 27 January 2020 17:35Den 06.01.2020 16:23, skrev Christian Rahmig:

- > In railML 3.1, the attribute @applicationDirection is
- > documented like this: "direction in which the element is
- > applied, related to the orientation of the <netElement>"
- >
- > What do you think: Is that precise enough?

I'm sorry, but no I do not think it is self-explanatory what "is applied" means. Not any more than the previous "is valid". If you put applicationDirection on a <track>, does it mean that the rails have been applied (as in laid down) in that direction? What about "direction \*of traffic\* for which the element applies/is applicable"?

I agree. The @applicationDirection shall be defined as the direction of traffic for which the element is applicable.

Thomas Nygreen wrote on Mon, 27 January 2020 17:35

Den 13.01.2020 15:09, skrev Christian Rahmig:

- > Elements without extent (without @length attribute)
- > examples: balise, border, derailer, signal, stopPost...
- > usage: @dir describes the direction of travel, for which the
- > element applies. Possible values are "up", "down" and
- > "both". A missing @dir attribute means that the application
- > direction of this element is unknown.
- > proposal: DEPRECATE @dir for trackCircuitBorder

I agree

Great! Any other opinions?

Thomas Nygreen wrote on Mon, 27 January 2020 17:35

- > Elements with extent (with @length attribute)
- > examples: bridge, levelCrossing, platformEdge,
- > serviceSection...
- > usage: @dir describes the direction of travel, for which the
- > element applies. Possible values are "up", "down" and
- > "both". A missing @dir attribute means that the application
- > direction of this element is unknown. By standard, the
- > elements' orientation (not their application direction!:)wink:
- > shall be always in direction of track orientation (from
- > trackBegin towards trackEnd).
- > proposal: DEPRECATE @dir for bridge, levelCrossing,
- > platformEdge, serviceSection and tunnel

Rather than writing about orientation, I would just write that the

extent of the element is from @pos to @pos + @length along the track.  
Yes, this formulation is short and precise. Let's use it.

Thomas Nygreen wrote on Mon, 27 January 2020 17:35

- > Elements that describe a change
- > examples: axleWeightChange, clearanceGaugeChange,
- > electrificationChange, gaugeChange, speedChange...
- > usage: @dir describes the direction of travel, for which the
- > change applies. Possible values are "up", "down" and "both".
- > A missing @dir attribute means that the application
- > direction of this change element is unknown. By standard,
- > the change elements' orientation (not their application
- > direction! wink: shall be always in direction of track
- > orientation (from trackBegin towards trackEnd).
- > proposal: DEPRECATE @dir for elements where properties
- > cannot differ by direction of travel, e.g. axleWeightChange,
- > clearanceGaugeChange, electrificationChange, gaugeChange,
- > ownerChange, powerTransmissionChange, radiusChange

What is the orientation of a change element? Are you referring to the sign of the value for gradientChange and radiusChange? I think these are the only two where orientation matters. For gradients, positive values should always mean an uphill slope in the direction of the track. For radii, positive values should always mean a turn to the right in the direction of the track.

A change element always contains a change of a feature from an old value to a new value. E.g. referring to an <electrificationChange> there is a state of electrification before the change as well as after the change. By setting the "change element orientation" I want to specify that the old value applies for the track until <\*Change>@pos and the new value (as provided by the change element) applies from <\*Change>@pos ongoing.

Any further comments are highly appreciated...

Best regards  
Christian

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