Subject: Re: May I use z parameter for notch as engine tractiveEffort?
Posted by Joerg von Lingen on Thu, 09 Oct 2014 07:00:28 GMT
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Dear Utah,

your assumption is correct. The structure of ValueTable allows to define a 3D matrix of values. The effort curve is
normally given as effort vs. speed but there might be another parameter like notch position or line voltage etc to
define a group of curves instead a single one.

Best regards,
Jörg von Lingen

Yutaka Manchu wrote on 02.10.2014 09:40:
> Dear All,
>
> Some engines have an acceleration/power control lever with several
> notches.
> Each notch limits the acceleration/power level of the engine.
>
> To express this notion, I'd like to confirm the correctness to use z
> parameter of valueTable written in
> " http://wiki.railml.org/index.php?title=RS:valueTable_tractiv eEffort", as
> "'z' is the additional parameter extending the dependency to y = f(x,z)"
> and "In case of several curves versus the x-coordinate there is the child
> element <columnHeader>, which takes the values of the z-coordinate as
> parameter for the array of curves.".
>
> According to "http://wiki.railml.org/index.php?title=RS:columnHeader", it
> could be expressed as followings;
>
> <vehicle id="ve_6000-Mc1" name="6000-Mc1" length="9.0" speed="60.0"
> bruttoWeight="3145.8" bruttoAdhesionWeight="393.2">
> <engine>
> <propulsion id="peMotor" powerType="electric" power="1105000"
> rotationMassFactor="1.0" description="Motor">
> <tractiveEffort>
> <valueTable xValueName="Speed" xValueUnit="km/h"
> yValueName="Tractive Effort" yValueUnit="N" zValueName="Notch"
> zValueUnit="1">
> <columnHeader zValue="1">
> </columnHeader>
> <valueLine xValue="0.0">
> <values yValue="5950.1" />
> </valueLine>
> <valueLine xValue="36.5">

```
>                 <values yValue="4200.0" />
>               </valueLine>
>                ...
>
>               <columnHeader zValue="2">
>               </columnHeader>
>               <valueLine xValue="0.0">
>                 <values yValue="10016.1" />
>               </valueLine>
>               <valueLine xValue="35.0">
>                 <values yValue="8200.0" />
>               </valueLine>
>                ...
>
>             </valueTable>
>           </tractiveEffort>
>         </propulsion>
>       </engine>
>     </vehicle>
>
>  May I ask you if my understanding is right?
>
> Best regards,
> Utah (Yutaka Manchu)
>
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