
Subject: Re: Different ways to model tractive effort

Posted by [Thomas Nygreen JBD](#) on Tue, 05 Mar 2019 13:20:27 GMT

[View Forum Message](#) <> [Reply to Message](#)

Dear all,

The current railML2 valueTable could support any of the segmented functions listed by Laura and Jörg, if we for each row apply the formula

$F = \text{Sum} (y_z * v^z)$ for all z

where each value for z is given by columnHeader@zValue.

If no column header is found and only one column is given, we would assume $z = 0$, meaning that $F = y$. This allows programs to keep listing the tractive effort for small speed steps.

This approach would support any polynomial function, such as constant (only $z=0$), linear (0 and 1), quadratic (0, 1, 2) and cubic (0, 1, 2, 3), the simple hyperbolic (-1, 0) and quadratic hyperbolic (-2) listed by Laura and Jörg, and other simple rational functions where there is no shift of the x variable.
