
Subject: Re: [railML3.3] xs:choice between linearCoordinate and
geometricCoordinate

Posted by [Mathias Vanden Auweele](#) on Thu, 28 Aug 2025 13:00:24 GMT

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@Christian: I would prefer option b.

A '(spot)Location' is unique in terms of the topology and can be linked to multiple different coordinate systems. So one '(spot)Location' and multiple 'coordinate instances'. This is much more in line with how RTM was conceived.

@Remi: I think the comparison "geo:Feature" <=> "rtm:BaseLocation" is more appropriate than "geo:Feature" <=> "rtm:NetEntity". Because a physical object is a rtm:NetEntity and can have multiple 'rtm:BaseLocations'. A physical object, can also have multiple "geo:Feature". A geo:Feature is a mapping feature and can depend on context, so it doesn't necessary align 1 to 1 with a physical object in the same way as the rtm:BaseLocation. But I have always been somewhat troubled with comparing RTM with OGC. RTM also covers aggregation which is not a need for OGC.

Besides, geosparql perfectly allows you to have one Geometry with multiple coordinate systems. There is no limit to the number of geo:asWKT properties. So in that sense, even when you are correct to assume "geo:Feature" is like "rtm:NetEntity", then a "rtm:BaseLocation" is like "geo:Geometry" and should allow multiple coordinates (which would only make sense...) with different coordinate systems :)
