
Subject: @minOccurs, @maxOccurs and @use
Posted by [christian.rahmig](#) on Tue, 02 Oct 2018 11:18:15 GMT
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Dear Dirk, dear all,

let me answer on behalf of Jörg:

elements... are by default mandatory (minOccurs="1" and maxOccurs="1") [1]

attributes... are by default optional (use="optional") [2]

Therefore, mandatory elements and optional attributes don't have to have mentioned properties.

For the following cases, properties have to be provided in the schema:

- * optional elements occurring once: minOccurs="0"
- * optional elements occurring up to n times: minOccurs="0" and maxOccurs="n" (with n being a positive number)
- * mandatory elements occurring up to n times: maxOccurs="n" (with n being a positive number)
- * mandatory attributes: use="required"

[1] https://www.w3schools.com/xml/schema_complex_indicators.asp

[2] https://www.w3schools.com/xml/schema_simple_attributes.asp

Best regards
Christian

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Am 01.10.2018 um 11:46 schrieb Dirk Bräuer:

- > Dear Joerg and all other's,
- >
- > at the last telephone conference, I was asked to check the new r2.4 <rollingstock> railML XSDs for more possible missing optionals.
- >
- > So, I compared rollingstock.xsd and rollingstockTypes.xsd
- > rev. 814 (RC 2.4)
- > with
- > rev. 611 (Original railML 2.3)
- > and searched for new <xs:element> definitions without "minOccurs='0'".
- >
- > I only found the one more: In rollingstock.xsd

> <xs:complexType name="eVehicleBrakes">
> <xs:element name="vehicleBrakeOperation" type="rail:tBasicBrakeOperation"
maxOccurs="unbounded">
> no "minOccurs='0'" occurs...
>
> The "minOccurs='0'" is also missing at some new attributes but it seems to me that for
attributes, it is not necessary (since older attributes also have none). (Sorry, I am not the best
choice for this task since I lack some knowledge about XSDs.)
>
> Joerg, please check this and, in case I am not mistaken, correct it for r2.4.
>
> Please correct me in case I misunderstood or tell me what else should be done.
>
> Best regards,
> Dirk.
>

Subject: Re: @minOccurs, @maxOccurs and @use
Posted by [christian.rahmig](#) on Thu, 04 Oct 2018 14:56:08 GMT
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Dear all,

Am 02.10.2018 um 13:18 schrieb Christian Rahmig:

> elements... are by default mandatory (minOccurs="1" and maxOccurs="1") [1]
>
> attributes... are by default optional (use="optional") [2]
>
> Therefore, mandatory elements and optional attributes don't have to have
> mentioned properties.
>
> For the following cases, properties have to be provided in the schema:
> * optional elements occurring once: minOccurs="0"
> * optional elements occurring up to n times: minOccurs="0" and
> maxOccurs="n" (with n being a positive number)
> * mandatory elements occurring up to n times: maxOccurs="n" (with n
> being a positive number)
> * mandatory attributes: use="required"

A ticket [1] has been created with the aim to identify and delete all
occurrences of

* minOccurs="1"
* maxOccurs="1"
* use="optional"

The ticket has been implemented with railML version 2.4.

[1] <https://trac.railml.org/ticket/344>

Best regards
Christian

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