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Subject: Re: New working draft of the infrastructure schema available  
Posted by [Volker Knollmann](#) on Wed, 13 Jun 2007 12:09:23 GMT  
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For those of you in a hurry:

[http://www.railml.org/genesis/infrastructure/drafts/r19/infrastructure\\_r19.xsd](http://www.railml.org/genesis/infrastructure/drafts/r19/infrastructure_r19.xsd)  
[http://www.railml.org/genesis/infrastructure/drafts/r19/channel\\_log.txt](http://www.railml.org/genesis/infrastructure/drafts/r19/channel_log.txt)

Dear railML-Community,

I just prepared a new issue of the IS-Schema based on the feedback given by the other coordinators and by Heidrun Jost, who reported an error.

The error was related to the new `xs:any`-element, which has been introduced to allow easy schema extension.

Unfortunately, I used `xs:any` as follows:

```
<xs:element name="e1"/>
<xs:element name="e2"/>
<xs:any/>
```

This kind of usage is wrong, because the content model becomes ambiguous, because a file like

```
<e1/> <e2/> <e2/>
```

can be valid (the second `e2` is part of `xs:any`) or invalid (the second `e2` is an unallowed repetition of the first `e2`).

To avoid this ambiguity, I moved `xs:any` to a separate subtree like this:

```
<xs:element name="e1">
<xs:element name="e2">
<xs:element name="otherElements">
  <xs:complexType>
    <xs:sequence minOccurs="0" maxOccurs="unbounded">
      <xs:any/>
    </xs:sequence>
  </xs:complexType>
```

So a file with customer specific extensions would look like this now:

```
<e1/>
<e2/>
```

```
<otherElements>  
  <thisIsMyOwnElementAndICanDoWhateverIWant/>  
</otherElements>
```

Due to this change, the customer elements are not at the same level as the "genuine" elements of railML, but I think this is more of a aesthetic issue than a real problem.

For all other changes, please take a look at the changelog file (see link above).

I'm looking forward to your comments!

Best regards,  
Volker Knollmann

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