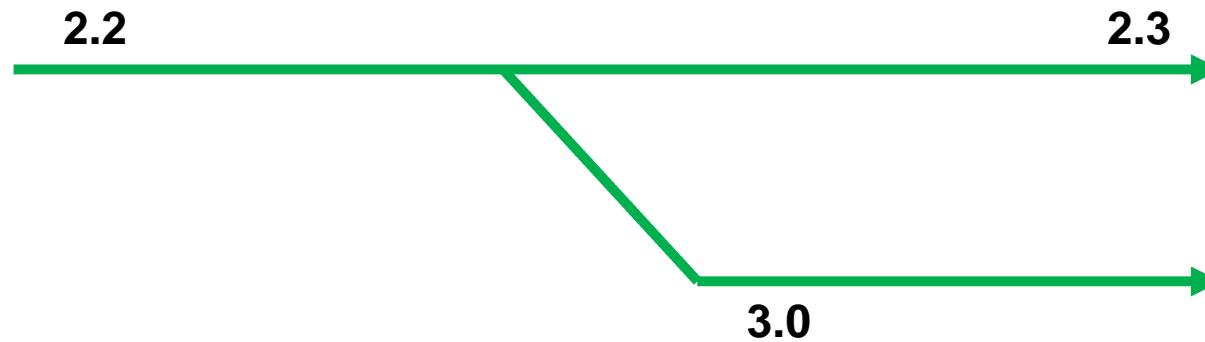


Timetable – current developments





paradigm for future versions 3.0 and 2.3

- backward compatibility of 2.3 with 2.2
- major changes in 3.0 only
- small enhancements additionally in 2.3 possible

Timetable issues for future implementation

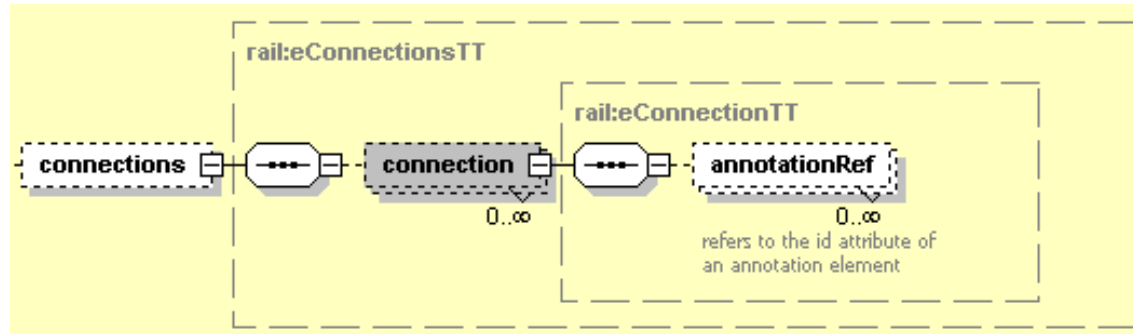


Ticket	Summary	Status	Owner	Type	Priority	Milestone ▲
# 138	Beispiel ins Wiki fuer Fahrten ueber Mitternacht	assigned	joachim.rubroeder	enhancement	normal	Version 2.2
# 224	train annotations	assigned	joachim.rubroeder	task	normal	Version 2.2
# 229	Clarify semantics of 'additionalTrainNumber'	new	joachim.rubroeder	task	normal	Version 2.2
# 21	Better Documentation inside schemas	new	joachim.rubroeder	task	normal	Version 2.x
# 36	FormationTT with rail waybill (de: Frachtbrief)	new	joachim.rubroeder	enhancement	normal	Version 2.x
# 37	FormationTT with dangerous goods indicator (de: Gefahrgutkennzeichen)	new	joachim.rubroeder	enhancement	normal	Version 2.x
# 147	UIC Train Transport ID	new	joachim.rubroeder	enhancement	normal	Version 2.x
# 170	Delay causes	new	joachim.rubroeder	enhancement	normal	Version 2.x
# 188	"Actual" train data, "real-time changes"	new	joachim.rubroeder	enhancement	normal	Version 2.x
# 220	passenger numbers along a section	new	joachim.rubroeder	enhancement	normal	Version 2.x
# 1	Emergency Brake Bridging	new	joachim.rubroeder	enhancement	normal	Version 3.0
# 110	Camel case in enumeration values	new	joachim.rubroeder	task	low	Version 3.0
# 141	rename/changes in TT	new	joachim.rubroeder	task	normal	Version 3.0
# 146	Element for train grouping	new	joachim.rubroeder	enhancement	normal	Version 3.0
# 176	Degrade sub-element operatingPeriodRef to attribute	new	joachim.rubroeder	enhancement	normal	Version 3.0
# 179	Harmonize length values	new	joachim.rubroeder	task	normal	Version 3.0
# 187	Abstract operating periods	new	joachim.rubroeder	enhancement	normal	Version 3.0

Further developments:

- New ideas initiated in forum:
<http://www.railml.org/forum/ro/index.php>
- Current status assembled in tracking tickets
see: <http://trac.railml.org/report/2>
- Detailed discussions carried out in working group with interested users: 11.11.2013 and 17.03.2014

Timetable connections, further requirements



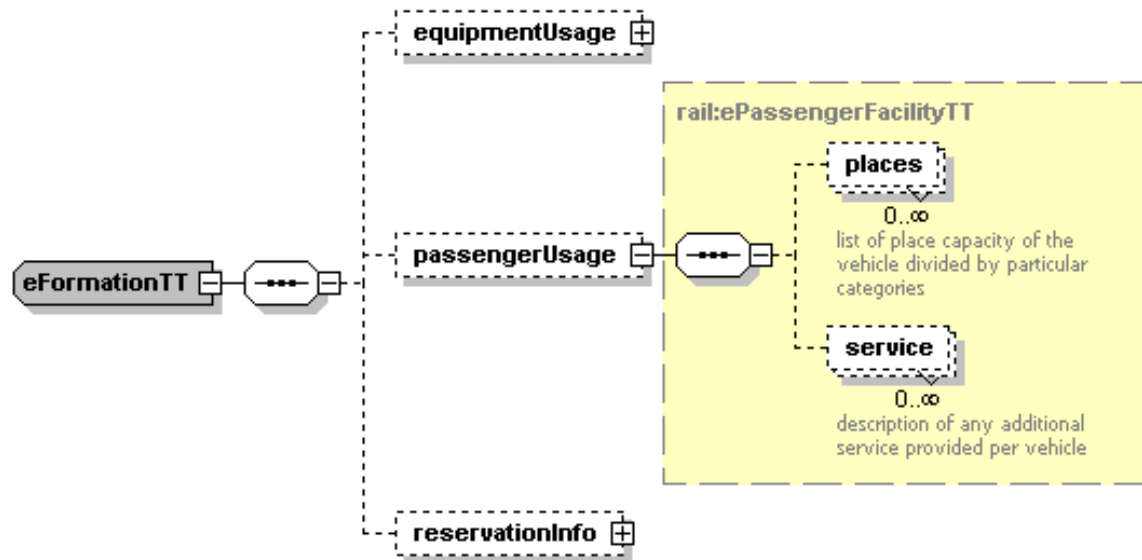
```
<connections>
  <connection trainRef="t_801200_376_J_2" connOperation="IsWaitingFor" ocpRef="nFF" connType="operational"/>
</connections>
```

Name	Type	Use
trainRef	rail:tGenericRef	required
minConnTime	xs:duration	
maxConnTime	xs:duration	
connOperation	rail:tConnOperation	
connType	rail:tConnType	
ocpRef	rail:tGenericRef	
trainPartRef	rail:tGenericRef	
any ##other		

connections: #244, #165, for 3.0 and maybe 2.3

- restriction for a certain operationPeriod
- optional trainRef for trains outside file
- not-to-be-communicated connections

Timetable attributes for formationTT

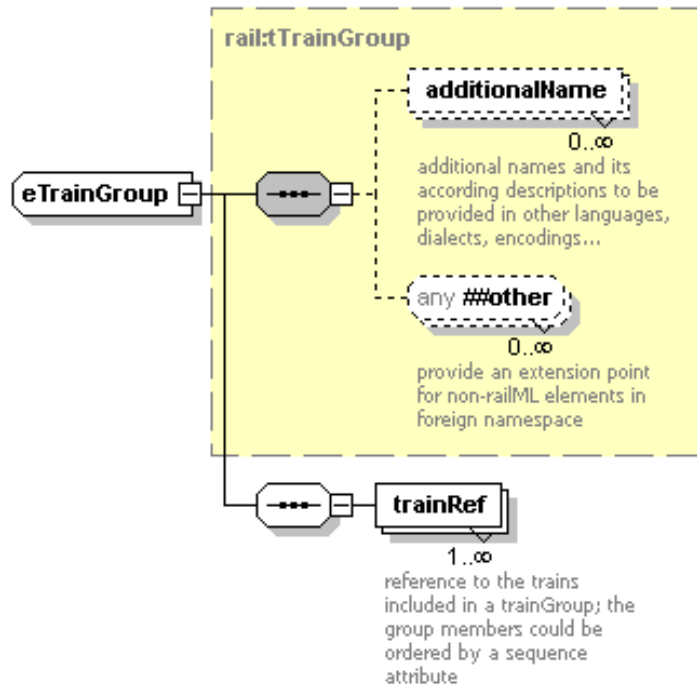


passengerUsage: #243, for 3.0 and maybe 2.3

- restriction for a certain operationPeriod
- compatibility with TAP/TAF-TSI (Codelists B.4.7161, B.4.9039)
- harmonized list of attributes (e.g. familyCarriage, mealAtSeat, ...)

Timetable

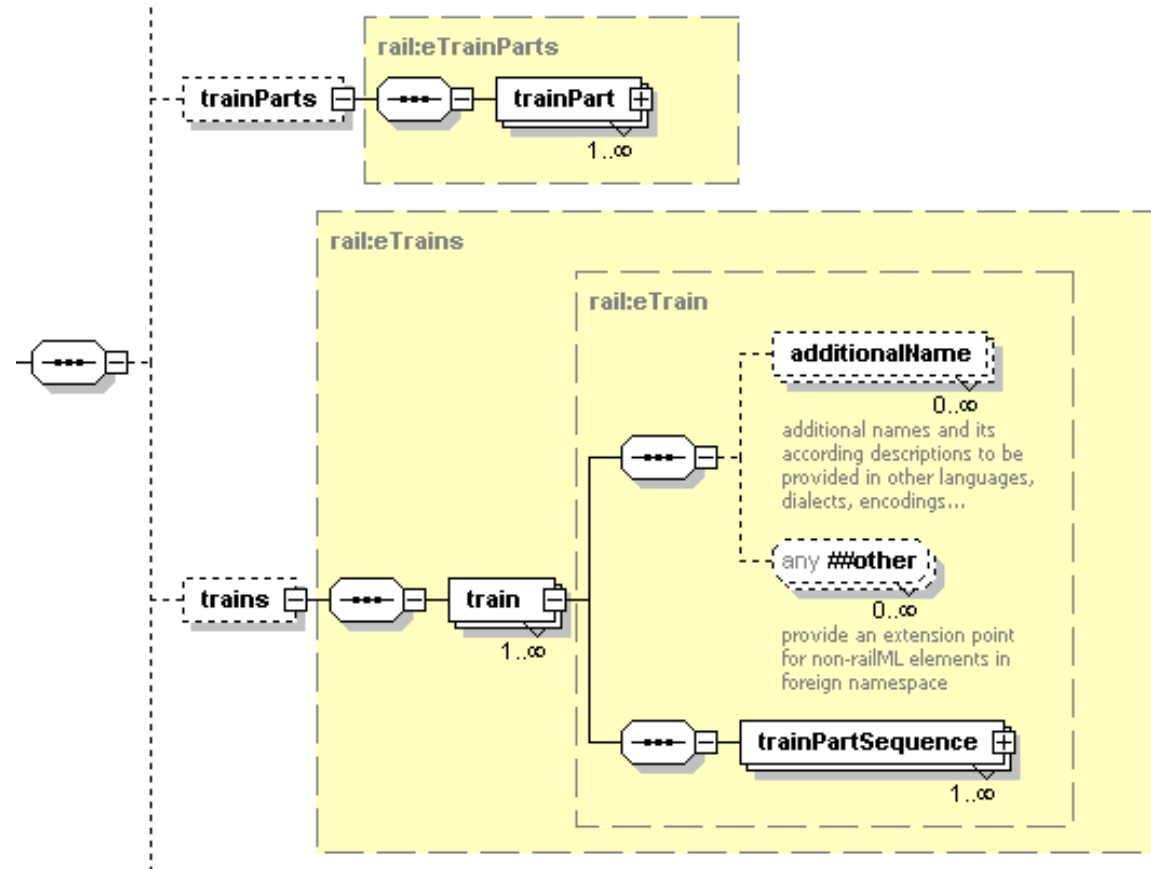
train identification, grouping trains



train identification: #245 for 3.0, needs further discussion

- same trainNumber in different planning horizons
- same trainNumber for different operation days

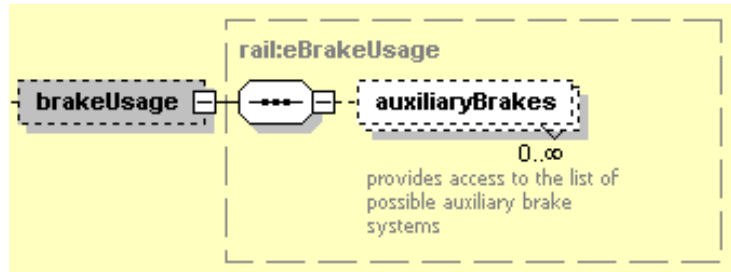
Timetable cancellations and timetable parts



changes and cancellations: #247 for 3.0, maybe 2.3

- changed trains in a separate export file
- canceled trains indicated by flag on train level
- partially cancellations indicated by flag on trainPart level

Timetable multiple technical data

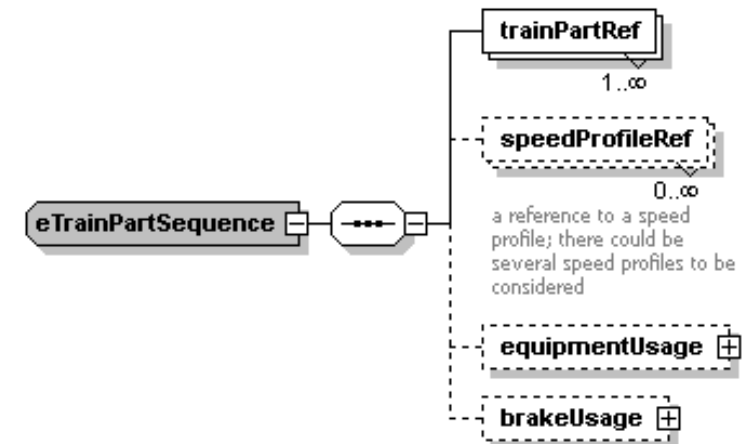
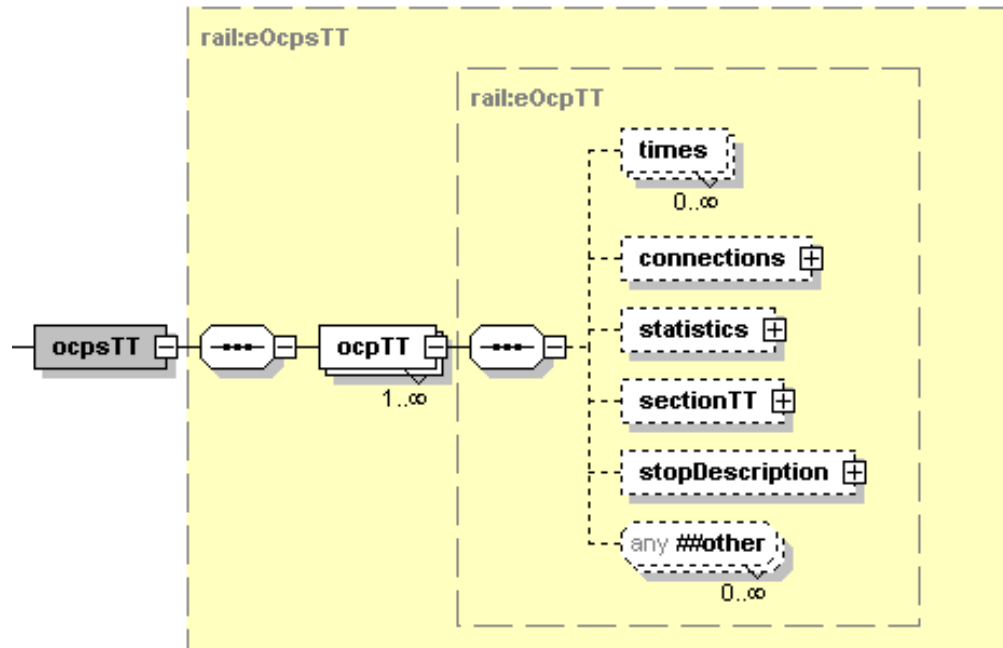


Name	Type	Use
brakeType	rail:tBrakeType	required
airBrakeApplicationPosition	rail:tAirBrakeApplicationPosition	
regularBrakeMass	rail:tWeightTons	
emergencyBrakeMass	rail:tWeightTons	
maxDeceleration	rail:tAccelerationMeterPerSquareSec	
meanDeceleration	rail:tAccelerationMeterPerSquareSec	
brakePercentage	rail:tBrakePercentage	
regularBrakePercentage	rail:tBrakePercentage	
emergencyBrakePercentage	rail:tBrakePercentage	
any ##other		

multiple technical data: #248 for 3.0, needs further discussion

- e.g. braking percentage vs. min braking percentage
- both values are needed in parallel

Timetable reusable itineraries



reusable itineraries: #240, #246 for 3.0, further discussion

- `o cpsTT` independently defined
- referenced within `trainPartSequence` instead `trainPart`
- avoid redundancy for modelling variants

Timetable

Questions and comments?



**Thank you
for your attention!**

