Subject: extension of rollingstock schema
Posted by Joerg von Lingen on Mon, 21 Dec 2009 14:31:16 GMT
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For a more detailed description of rolling stock features, especially motive power, several new elments and attributes are proposed:

additional attributes for <diesel>
  "availableAuxiliaryPower" [tPowerWatt] - portion of diesel engine power reserved for supply of auxiliaries

additional attributes for <engine>
  "axleDriveType" [tAxleDriveType: "cardanShaft", "tubularAxle", "noseSuspensionDrive", "helicalSpringGear", "rubberRingResilentDrive", "buchliDrive", "sideRodDrive", "inclinedRodDrive", "chain"] - the type of mechanical construction for transmitting the torque onto the wheelset
  "haulageLoad" [tWeightTons] - the limit of load allowed to be hauled by the vehicle, shall be used when there are certain limits as lightweight construction vehicles etc (nur Leichtbaufahrzeuge etc)

additional sub-element for <engine> -- <pantograph>
  can occur several times, one for each panto
  "controlType" [tPantographControlType: "cable", "spring", "air"] - the way of controlling the panto drive
  "designType" [tGenericName] - descriptive info about design type
  "fittedSection" [tCounter] - number of vehicle section the panto is fitted on in case of articulated vehicle, normally "1"
  "headWidth" [tLengthM] - width of pan head (carbon stripes)
  "maxCurrentDriving" [tCurrentAmpere] - maximum current transferred by the panto during driving
  "maxCurrentStandstill" [tCurrentAmpere] - maximum current transferred by the panto in standstill of the vehicle
  "orderNumber" [tCounter] - number of panto on the vehicle, normally "1"
  "positionOnSection" [tPantographPositionType: "front", "frontSecond", "middle", "rearSecond", "rear"] - position of the panto with respect to typical locations of a section

additional sub-element for <pantograph> -- <dedicatedSupplySystem>
  can occur several times for each panto, one for each supply system the panto may be used for
  "frequency" [tFrequencyHertz]
  "voltage" [tVoltageVolt]

additional attributes for <propulsion>
  "description" [tElementDescription] - additional descriptive information for the propulsion dataset
  "speedRange" [tSpeedRangeType: "dontcare", "slow", "fast"] - used to identify dataset of propulsion for slow speed range (shunting) or fast speed range (main

line) in case of switchable gear
  "forwardSpeed" [tSpeedKmPerHour] - permissible speed with front ahead (normal direction)
  "reverseSpeed" [tSpeedKmPerHour] - permissible speed with tail ahead (reverse direction)

additional attributes for <fourQuadrantChopper>
  "meanPhiRegeneration" [tAngleDegFullCircle] - phase angle in regeneration mode, used if different to traction mode

additional attributes for <gangway>
  "designType" [tGangwayDesignType: "standardUIC561", "special", "nonPublic"] - selection of possible design types, shall be same type for both sides or only one gangway at all

additional attributes for <vehicle>
  "adjustableWheelSet" [boolean] - true when alternative track gauge given
  "trackGaugeAlternative" [tLengthM] - alternative track gauge the wheelsets can be adjusted to
  "onTrainHead" [boolean] - vehicle may run at the train head
  "onTrainTailOnly" [boolean] - vehicle must be the last one in any formation, no other vehicle coupled to its end
  "towingSpeed" [tSpeedKmPerHour] - maximum allowed vehicle speed in km/h when its towed (not powered)

additional sub-element <auxiliarySupply> -- <dedicatedSupplySystem>
  "voltage" [tVoltageVolt] - voltage of available supply system
  "frequency" [tFrequencyHertz] - frequency of available supply system
  "maxPower" [tPowerWatt] - maximum available power of the dedicated supply system

additional sub-element <passenger> -- <doors>
  "number" [tCounter] - number of doors of the vehicle at one side
  "entranceHeight" [tLengthM] - height of entrance foot plate above rail top
  "entranceLength" [tLengthM] - maximum distance between the doors of the vehicle
  "entranceWidth" [tLengthM] - total of all door width of the vehicle at one side
  "footStepHeight" [tLengthM] - height of lowest foot step above rail top
  "lockingSpeed" [tSpeedKmPerHour] - speed limit for locking the doors during train ride

additional sub-element <passenger> -- <tilting>
  "maxTiltingAngle" [tAngleDegQuadrant] - maximum tilting angle in degrees
  "actuation" [tTiltingActuationType: "none", "active", "passive"] - way of actuating the carbody tilting
  "tiltingSpeed" [tSpeedDegreesPerSecond] - speed of changing the tilting angle in degrees per second

additional attributes for <gear>
  "designType" [tGenericName] - design type of the gear

"manufacturer" [tGenericName] - name of the gear manufacturer
 "nominalPower" [tPowerWatt] - nominal power of the gear for transmission
 "torqueConversion" [tTorqueConversionType: "converter", "coupling",
"hydrodynamicTransmission", "hydraulicTransmission",
"hydromechanicalTransmission", "hydrostaticTransmission"] - type of torque
conversion between motor and axle gear, mainly for diesel-hydraulic vehicles

additional sub-element <goods> -- <service>
 same structure as <service> for <passenger> in order to allow naming of
additional features/provisions of the vehicle's freight compartment

additional sub-element <wagon> -- <auxiliarySupplySystem>
 "voltage" [tVoltageVolt] - voltage of available supply system
 "frequency" [tFrequencyHertz] - frequency of available supply system

additional sub-element <wagon> -- <driversCab>
 "orderNumber" [tCounter] - ordered number of cab
 "position" [tCabPositionType: "none", "front", "rear", "middle"] - position of
the cab with regard to vehicle
 "acousticSignaller" [tAcousticSignalType:] - type of acoustic signaller installed

additional sub-element <wagon> -- <rackTraction>
 "number" [tCounter] - number of cog wheels
 "rackSystem" [tRackSystemType: "none", "Riggenbach", "Riggenbach-Klose",
"Abt2Blades", "Abt3Blades", "Locher", "Strub", "Wetli", "Marsch", "Roll"] - kind
of rack system
 "resilentCogWheel" [boolean] - flag, whether cog wheel(s) is(are) resilently
suspended

The changes can already be found in svn for scrutiny. Please check the proposals
and provide feedback.

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Mit freundlichen Grüßen/Best regards,

Jörg von Lingen