News of railML-Interlocking parts

24th railML.org - meeting

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railML.org

Paris, September 18th, 2013
Interlocking schema proposal
  Status Quo
  Overview
  Feedback
  Development

Signal aspect integration
  Generic concept

Outlook
  Next steps in the Interlocking development
What happened?

- Last Interlocking workshop at June 13th, 2013 in Berlin
- Members: railML, Thales (DE, AT), Siemens (DE, NL, UK), Alstom, SBB, Infrabel, ON-TIME
- Open issues saved at the wiki page http://wiki.railml.org/index.php?title=IL_IntendedFeatures
- Conclusions implemented into the interlocking XML schemas
- Proposal XML schemas sent out via the IXL-Mailing list
- Test implementations: ON-TIME, Siemens-NL
Slightly outdated picture of the general Interlocking model
Siemens UK / Invensys Rail opinion

“Generally speaking the news is very good. Aside from a few largely UK-specific points they really liked the model and also mentioned they’d be much more interested in using railML if interlocking was included (ETCS also came up...).” (John Easton, University of Birmingham, excerpt from an email)
Changes since last XML Schema proposal

- Integration of signal types and according signal aspects into the route definition
- Some bug fixes
- Enhanced wiki documentation
### Generic concept

#### Signal types
- **DS**
- **MS:Entry**
- **MS:Exit**
- **MS:BS**

#### Signal aspects
- **Sig1**: caution, expect proceed
- **Sig2**: stop, reduced proceed 60, reduced proceed 100, proceed
- **Sig3**: proceed
- **Sig4**: stop, proceed
- **Sig5**: stop, reduced proceed 60, reduced proceed 100, proceed
- **Sig6**: proceed

#### Signal aspect groups
- **SigAspGr1**: caution, expect proceed
- **SigAspGr2**: stop, reduced proceed 60, reduced proceed 100, proceed
- **SigAspGr3**: stop, reduced proceed 100
- **SigAspGr4**: stop, proceed

#### Signal aspect dependencies
- **SigAspDep1**: MS:Entry → MS:Exit
  - stop → failed
  - reduced proceed 100 → stop → proceed
- **SigAspDep2**: MS:Entry → MS:Exit
  - stop → failed
  - reduced proceed 60 → stop → reduced proceed 100
- **SigAspDep3**: DS → MS:Entry
  - caution → failed
  - caution → stop
  - expect proceed → reduced proceed 60
  - expect proceed → reduced proceed 100
  - expect proceed → proceed
- **SigAspDep4**: MS:Exit → MS:Entry
  - stop, reduced proceed 60, reduced proceed 100, proceed

#### Routes
- **R1**: Sig2 → Sig4: SigAspDep1
  - Tr1, Tr2
  - Sw1: right
  - Sw2: right
- **R2**: Sig2 → Sig5: SigAspDep2
  - Tr1, Tr3
  - Sw1: left
  - Sig1: SigAspDep3

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How to go further?

- Next meeting on September 19th, 2013 at UIC in Paris
- Collect feedback on current proposal, discuss this
- Implement resulting clarifications and changes
- Discuss use cases and implementation strategy
- Discuss interaction with planned new railML infrastructure model (railML 3.0)
Thank you for your attention.