Corrections

All Spelling punctuation and grammar: All of Bruno’s “Minor corrections” carried out as requested.

Spelling \ Grammar \ layout errors as highlighted by your notes in the thesis also corrected

Other, trivial, grammar \ spelling points also revised.

Any questions not addressed in this document were answered at the viva.

# Chapter one:

Add summary of published papers – section added at end of chapter

Expand Upon: the consensus of the research is that ontology will save money and improve customer service.

Clarified that the work is broader than the UK rail industry

Summarise academic innovations of this project: aims and objectives section clarified

This thesis will first investigate the current state of data integration in the rail domain, considering both solutions that employ ontology alongside more traditional techniques. The benefits of using ontology for data integration in the rail domain will then be assessed, taking into account progress made in other domains. This thesis will then examine the barriers to using ontology for data integration in the rail domain, before considering methods for overcoming those barriers. This thesis will then summarise tooling created to overcome the known barriers to adoption, and how these may be used within a typical industry workflow.

# Chapter two:

More recent railML reference found. Previous reference (2010) was valid, however a newer reference was requested.

Examples were added for the formats discussed.

RaCoOn defined when first mentioned.

Information Security: section re-titled and clarified

Section Headings updated.

Formatting

# Chapter three:

# Chapter Four:

Formatting changes as requested

Removed multiple screen shots of manual data entry tool and replaced with new diagram. The screen shots were moved to an appendix, as requested. The chapter text was updated to reflect this.

# Chapter Five:

Rename Chapter: Use of a Middleware Layer with Ontologies

Diagrams clarified and expanded

Future work expanded: scalability in particular is discussed.

Academic Questions set out in introduction (subsection: {Questions Considered})

# Chapter Six:

Define PCIDR : Track based Point Control Inhibit, and Detection Repeat (PCIDR) and Control

Define RETS: RETS is a rail network simulator used by the project's commercial partner, capable of micro level simulation and of outputting absolute positions, where it has the necessary data.

Diagrams (figures 6.7-6.9) revised and made smaller