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Subject: Re: railML 3.x: Data Modelling Patterns

Posted by [Martin Karlsson](#) on Tue, 11 Dec 2018 12:48:52 GMT

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Looking at the Interlocking domain in the v 3.1 release candidate, I have observed a number of deviations from these rules. As the rules are quite new, it is still an open discussion whether to change the rules or the schema, or even keep the rules but motivate a deviation. Either way, I would like to highlight my findings.

1) Hierarchy. IL has introduced a "super-container" level (e.g. AssetsForILs) between the Domain (Interlocking) and View (AssetsForIL). So you can have multiple Views of the same type in one file.

The reason for this is apparently that Controller, SignalBox and SpecificIM are considered to be Views (and they obviously exist in multiplicity). But in my opinion, they are Objects. A view should represent a certain type of information, not an individual entity.

I believe this should be aligned so that it is the same everywhere. Either follow the rules, or change them.

2) Naming of containers. According to the rules, container elements are named from the objects they contain, but in plural. In addition to this, IL has added a preamble, qualifying the type of relation. E.g. "knowsRoutes" instead of just "routes".

I'm not convinced that this preamble adds any value to the developers. As far as I have seen, there are not multiple containers of the same object type anyway. But also here, an alternative is to apply this pattern consistently.

3) Naming of Objects. This is not really covered by the rules, but anyway... The principle used in IL has been to first try to find a name that is different from what is used in IS (e.g. MoveableObject instead of Switch). If this has not been possible, a suffix of "IL" has been added to the name (e.g. LevelCrossingIL).

I would prefer to use the suffix variant consistently. That would make it apparent that the IS and IL objects are different views of the same thing. In earlier drafts of the IS domain, this principle was used to distinguish between functional and physical assets.