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Use cases for consistent robust processing of data models

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Many control algorithms or optimisation procedures profit from a consistent set of data which is available with a high frequency: e.g. machine learning or automated commissioning. Modern distributed control systems allow combining and presenting data based on data models, which are then transported consistently over the network: e.g. EPICS7 introduced these data models as normative types or their combination.
In this paper we present use cases that profit from combining data sub-models to a consistent higher order data model. These are today typically implemented in some programming language.
The authors present use cases that can profit from a consistent robust combination of data sub-models of many devices to a higher order model. Finally common patterns are presented which could be reasonable to implement independently.

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Footnotes

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