

Transformation of IEC 61131-3 to IEC 61499 based on a model driven development approach

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Abstract- This paper provides a possibility to convert existing IEC 61131 projects into the newer IEC 61499 standard and therefore offers the use of its modern concepts also for the currently applied standard. Based on a model driven development approach as well as proper concepts and rules this paper describes one possibility for implementing a transformation of IEC 61131-3 into IEC 61499. The transformation process is realized through an IEC 6113-3 and IEC 61499 compliant engineering environment. To provide an appropriate example model an IEC 61131-3 convenient development tool is used. After the transformation an available IEC 61499 development tool is used to check the transformation outcome.