Software Engineering für Roboter bei Biomatik / 2i Industrial Informatics



Preface

The origin of PASRO (Trademark of BIOMATIK GmbH, Freiburg, FRG) was a set of procedures for performing arithmetic on geometric data types and for coordinate transformation for study and teaching purposes, developed as a base for high level robot programming. The study of many robot languages revealed areas for necessary improvements:

- Move statements
 must be independent of a specific robot control system. They must instead be based on
 the different types of trajectory calculation resp. interpolation.
- A structured language concept should be employed, including a structured concept for concurrent programming (The latter is not yet implemented in PASRO owing to the use of Standard PASCAL instead of CONCURRENT PASCAL or MODULA 2).
- Integration of geometric data types into existing structured data types.
- 4. Simplicity of language constructs.
- 5. Integration of teach-in via frame-files.

This resulted in the implementation of PASRO by Christian Blume (BLUME [1.1]) and in the joint development of the SRL concept (Structured Robot Language) as it was introduced in May 1983 at Liege (see BLUME/JAKOB [1.2]).

PASRO is at present state of the implementation a programming system for teaching, studying and experimenting and not for industrial use, although it could easily be extended for that purpose (cf paragraph 8.2).

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