

PACKAGE ID - 000831SPARC00 RIPE/RIPL

KWIC TITLE - Robot Independent Programming Environment and
Language

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LIMITATION CODE -COPY **AUDIENCE CODE** - LIM

COMPLETION DATE - 01/01/1990 **PUBLICATION DATE** - 01/01/1990

DESCRIPTION - RIPE is an object-oriented approach to robot system architectures; it is a software environment which facilitates rapid design and implementation of complex robot systems for diverse applications. The robot work cell is modeled using software objects and supports model-based automated programming of robotic and machining devices, real-time sensor-based control, error handling, robust communications and graphical interfaces for robot system control. The objects include robots, sensors, end effectors, workpieces, NC machines and various other devices. A set of generic classes is defined to represent these objects, and the interfaces to them become RIPL.

PACKAGE CONTENTS - Media Directory; Software Abstract; Media Includes Source Code, Text Library, Object Library, User's Guide, Executable Module, Object Module, Programmer Documentation;

SOURCE CODE INCLUDED? - Yes

MEDIA QUANTITY - 1 CD Rom

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METHOD OF SOLUTION - Reusability is achieved by object-oriented software components.

COMPUTER - SUN SPARC

OPERATING SYSTEMS - UNIX, Vx Works

PROGRAMMING LANGUAGES - 97% C++, 3% C

SOURCE CODE AVAILABLE (Y/N) - Y

UNIQUE FEATURES - Provides uniform way of programming a number of robots such as Fanuc, CimCorp gantry, Puma, Adept

RELATED SOFTWARE - SMART software is needed for the Puma.

OTHER PROG/OPER SYS INFO - Requires the Monitor program for particular robot being used.

HARDWARE REQS - For real-time sensor-based control VME based hardware is required. This includes a 68030 CPU running Vx Works Operating System.

REFERENCES - Informal documentation

ABSTRACT STATUS - Submitted 4/13/95. Released AS-IS 10/26/95.

SUBJECT CLASS CODE - T

KEYWORDS -

COMPUTER PROGRAM DOCUMENTATION
R CODES
ROBOTS
PROGRAMMING
COMPUTERIZED CONTROL SYSTEMS

EDB SUBJECT CATEGORIES -
990200 420200

SPONSOR - DOE/DP

PACKAGE TYPE - AS - IS