The Ontology Summit in Context

Steve Ray

Ontology Summit

2026-02-25

ALPS - A Language for Process Specification

Bryan A. Catron
Steven R. Ray
Factory Automation Systems Division
National Institute of Standards and Technolog

Abstract

This paper describes research identifying information models to facilitate pr
to transfer this information to process control. A conceptual schema is int

---

Unified Process Specification Language: Requirements for Modeling Process

Craig Schlenoff
Amy Knutilla
Steven Ray

PROCESS SPECIFICATION LANGUAGE: An Analysis of Existing Representations

Amy Knutilla
Manufacturing Engineering Laboratory
National Institute of Standards and Technology
Gaithersburg, MD
E-mail: amy.knutilla@nist.gov

Craig Schlenoff
Manufacturing Engineering Laboratory
National Institute of Standards and Technology
Gaithersburg, MD
E-mail: craig.schlenoff@nist.gov

Steven Ray
Manufacturing Engineering Laboratory
National Institute of Standards and Technology
Gaithersburg, MD
E-mail: steve.ray@nist.gov

Stephen T. Polyak
Department of Artificial Intelligence
The University of Edinburgh, UK
E-mail: Steve_Polyak@ed.ac.uk

Austin Tate
Artificial Intelligence Applications Institute
The University of Edinburgh, UK
E-mail: a.tate@ed.ac.uk

Shu Chiun Cheah
Department of Computer Science
and Institute for Systems Research
The University of Maryland, College Park, MD
E-mail: scheah@cs.umd.edu

Richard C. Anderson
Department of Engineering Management
George Washington University, Washington,DC
E-mail: anderson@seas.gwu.edu

The Process Specification Language (PSL)
Overview and Version 1.0 Specification

Craig Schlenoff
National Institute of Standards and Technology
100 Bureau Drive - Stop 8260
Gaithersburg, MD 20899

Michael Gruninger
4 Taddle Creek Road
University of Toronto
Toronto, Ontario M5S

Florence Tissot
Knowledge Based System
1408 University Drive
College Station, TX 77

John Valois
STEPTools Inc.
Rensselaer Technology
Troy, NY 12180

Josh Lubell
National Institute of Standards an
100 Bureau Drive - Stop
Gaithersburg, MD 208

Jintae Lee
University of Colorado - Camp
Boulder, Colorado 803

The Process Specification Language (PSL)
Theory and Applications

Michael Grüninger and Christopher Menzel

The pursuit of rigor in interoperability standards

Old-style (most common) standards specifications: (e.g. ISO 14258, Requirements for enterprise-reference architectures and methodologies)

"3.6.1.1 Time representation

If an individual element of the enterprise system has to be traced then properties of time need to be modeled to describe short-term changes. If the property time is introduced in terms of duration, it provides the base to do further analyses (e.g., process time). There are two kinds of behavior description relative to time: static and dynamic."

Data-model standards (e.g. ISO 10303-41, Product Description and Support)

ENTITY product_context
  SUBTYPE OF (application_context_element);
  discipline_type : label;
END_ENTITY;

Semantic-model standards (e.g. ISO 18629-11, PSL Core)

(forall (?t1 ?t2 ?t3)
    (=>   (and   (before ?t1 ?t2)
                    (before ?t2 ?t3))
          (before ?t1 ?t3)))

HomePage

HomePage | RecentChanges | Preferences

Ontolog Community Wiki (01)

This is the ONTOLOG Community Wiki, an integra
Treat this as the restaurant napkin that you can sketc
sketching. (02)

First time users should read more about the [WikiW
"AbrahamLincoln") before you proceed with a wiki

If you want to find out "What is an ontology?", [this

Charter of the Ontolog Forum (011)

Ontolog is an open forum to: (012)

- **Discuss practical issues and strategies associated with the development of both formal and informal ontologies used in business.** (013)

- **Identify ontological engineering approaches that might be applied to the UBL effort.** (014)

ONTOLOG - collaborative work environment

Open International Forum on Business Ontology

Community Portal: http://ontolog.cim3.net/

Community Wiki: http://ontolog.cim3.net/wiki/

Community Forum:
Message Archives: http://ontolog.cim3.net/forum/ontolog-forum/
Subscribe/Unsubscribe/Configure: http://ontolog.cim3.net/mailman/listinfo/ontolog-forum/
To Post: mailto:ontolog-forum@ontolog.cim3.net