Super Distributed Objects DSIG Final Agenda ver.1.00 sdo/05-01-01

OMG TC Meeting - Burlingame, CA -- January 30- February 4, 2005

Schedules:

		TF/SIG				
		Host	**Joint (Invited**	**Agenda Item**	**Purpose**	**Room**
Sunday (January 30)						
13:00	13:15	SDO		Welcome and Review SDO Agenda	SDO Meeting Kick-off	Oak, Atrium Lv1
13:15	14:15	SDO		< Invited Talk > - Prof. Kazuhiro KOSUGE (Tohoku Univ.,	Informative	Oak, Atrium Lv1
14:15	14:45	SDO	(MARS, RTSS, ManTIS, Space)	**Robotics Domain SIG motion proposal**	Lanching new SIG. Discussion on Charter (new Robotics-SIG Activity)	Oak, Atrium Lv1
				Break		
15:00	15:45	SDO	(MARS, RTSS, ManTIS, Space)	Brief Introduction to SDO - Prof. Seiichi Shin	Tutorial (SDO-SIG Activity)	Oak, Atrium Lv1
15:45	16:30	SDO	(MARS, RTSS, ManTIS, Space)	SDO model for Robotics Domain	Discussion of RFP contents (SDO-SIG Activity)	Oak, Atrium Lv1
16:30	17:00	SDO	(MARS, RTSS, ManTIS, Space)	Free discussion (What is robotics? etc…)	Discussion (new Robotics-SIG Activity)	Oak, Atrium Lv1
17:00	17:30	SDO		Next Meeting Agenda Discussion, etc	SDO Closing session	Oak, Atrium Lv1
17:30		SDO		Adjourn		
Monday (January 31)						
9:00	12:00	SDO		Robotics Showcase		Gr Peninsula C, Lobby Lv1
12:00	13:00	**LUNCH**				
13:00	17:00	SDO		Robotics Showcase		Gr Peninsula C, Lobby Lv1
Tuesday						
12:00	13:00	**LUNCH**				
Wednesday						
12:00	14:00	**LUNCH and OMG Plenary**				
18:00	20:00	**OMG Reception**				
Thursday						
12:00	13:00	**LUNCH**				
13:00	18:00			Architecture Board Plenary		
17:00	19:00	MARS	all	Agenda Coordination	cooperative activity	Conifer, Atrium Lv1
Friday						
8:30	15:00			AB, DTC, PTC		Gr Peninsula AB, Lobby Lv1
12:00	13:00	**LUNCH**				

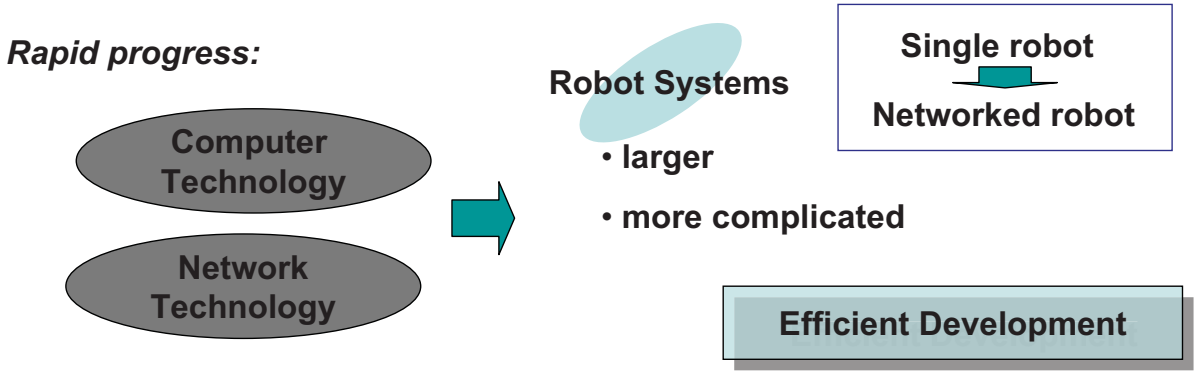
Other Meetings of Interest to SDO						
Monday						
8:00	8:45	OMG		New Attendee Orientation		
9:00	12:00	OMG		Tutorial - Introduction to UML 2.0		
18:00	19:00	OMG		New Attendee Reception (by invitation only)		
Tuesday						
9:00	12:00	OMG		Tutorial - Software Communication Architecture		
13:00	17:00	OMG		Tutorial - Survey of OMG Specifications		
Wednesday						
Thursday						

SDO (Super Distributed Objects) Plenary Meeting

January 30, 2005
Burlingame, CA

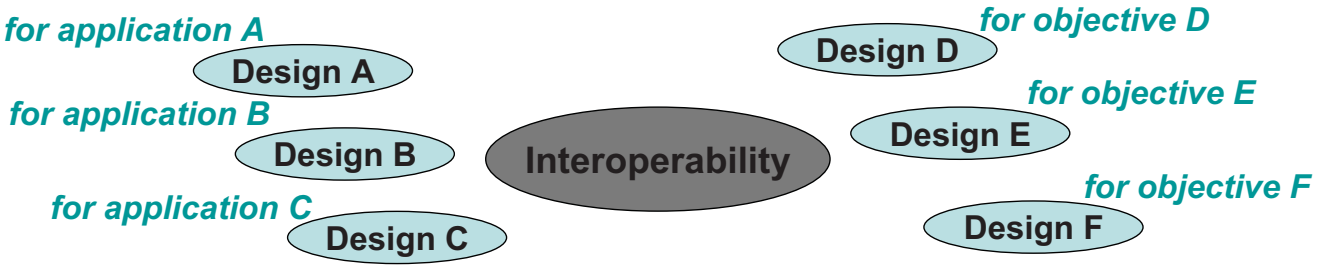
Robotics Standards at OMG

With the rapid progress in computer and communication technology, the robot systems are fast becoming larger and more complicated. Therefore, there is a real need for the software technologies for efficient developments. Now various software technologies are proposed and implemented respectively.



Robotics Standards at OMG

Unfortunately, most of these pioneering initiatives are developed independently of the others, driven by specific applications and objectives. In order to settle this state of chaos, we would like to contribute to the promotion of standardization in the field of robotics based on the mutual understanding between the relevant parties.



Integration of robot systems based on modular components

Robotics standards based on the MDA

Preceding Activities (1)

- **Presentation** (by Prof. Mizukawa)
  April 26, 2004 (St. Louis Meeting)
  mars/2004-04-10

- **Robotics Information Forum** **Kick-off**
  August 24, 2004 (Montreal Meeting)
  http://www.is.aist.go.jp/rt/events/20040824OMG.html
  mantis/2004-08-06 -07 -08 -09 -10

Preceding Activities (2)

- **RoboNexus Presentation** recruiting
  (by Jon Siegel)
  October 22, 2004 (Santa Clara, CA)
  robotics/2004-11-01

- **1st SDO Meeting** Robotics WG in SDO
  November 2, 2004 (Washington DC Meeting)
  sdo/2004-11-01 -02 -03 -04 -05 -06 -07

Mailing List:
robotics@omg.org

Roadmap Review

- At the previous Washington meeting, we established Robotics WG inside SDO-SIG to discuss the SDO model for robotic applications.
- While, for the general discussions on robotics domain. So we will make a motion of setting up new Robotics-SIG.

visible

Two activities in parallel

Review Agenda

Robotics Showcase
Monday, January 31, 2005

January 30, 2005

- **Welcome and Review Agenda**
- **Invited Talk (Prof. Kazuhiro Kosuge)**
- **Robotics-DSIG motion proposal**
- **Brief Introduction to SDO (Prof. Seiichi Shin)**
- **SDO model for Robotics Domain (RFP discussion)**
- **Free discussion**
- **Next meeting Agenda**

Next Meeting Agenda

April 11-15, 2005 (Athens, Greece)

Monday-Tuesday

SDO-SIG Meeting [Mon, Apr.11]

- SDO model applying to Robotics Domain (review RFP draft)

Robotics-SIG Meeting [Tue, Apr.12]

- Robotics Technology: initial survey (discussion of RFI draft)

Joint Meeting (SDO and Robotics)

Roadmap for Robotics Activities

sdo/05-01-03

Item	Status	DC Oct-2004	Burlingame Jan-2005	Athens Apr-2005	Boston Jun-2005	Atlanta Sep-2005	TBD Nov-2005	TBD Jan-2006	TBD Apr-2006	POC / Comment
Charter on Robotics WG in SDO	done	issued								Kotoku(AIST), Mizukawa(Shibaura-IT)
SDO model for Robotics Domain	Planned	discussion	draft RFP	RFP		Initial Submittion		Revised? Submittion		Kotoku(AIST), Suehiro(AIST), Lemaire(JARA), Sameshima(Hitachi)
Charter on Robotics SIG	In Process	discussion	issued							Kotoku(AIST), Mizukawa(Shibaura-IT)
Robotics Information Day [Technology Showcase]	In Process		Showcase (US corp.)	?	?					Yokomachi(NEDO), Kotoku(AIST)
Robotics: Initial Survey [Clarification of Target Item]	Planned	discussion		draft RFI	RFI	RFI due Presentation		review RFI response	review RFI response	(JARA), Lemaire et al.
(Robot Middleware for Controller)	Future					Official Start of Subgroups	draft RFP			to be discussed
(Robot Middleware for Specific Applications)	Future									to be discussed
(Robot Middleware Common Services)	Future									to be discussed
(Robot Middleware for Common Data Structures)	Future									to be discussed
	Future									to be discussed

Motion to Charter the Robotics Domain SIG

Co-Chairs (tentative):

- **Makoto Mizukawa** (Shibaura Institute of Technology)
- **Tetsuo KOTOKU** (AIST-Japan)

Mission:

The purpose of the Robotics Domain SIG is to foster the integration of robotics systems from modular components through the adoption of OMG standards. To realize this purpose, we will:

- Adapt and extend OMG technologies that apply to the specific domain of robotics systems where no current baseline specifications exist, such as MDA for Robotics. The object technology is not solely limited to software but is extended to real objects. This effort promotes the use of OMG technologies in various markets.
- Promote mutual understanding between the robotics community and the OMG community.
- Endeavor to collaborate with other organizations for standardization, such as the one for home information appliances, and make an open effort to increase interoperability in the field of robotics.
- Coordinate with the appropriate OMG subgroups and the Architecture Board, for technology areas that overlap with other OMG Task Forces, to determine where the work will be accomplished.

sdo/05-01-05

Initial submission to PIM and PSM for SDO
- Preliminary presentation -

2002.6.14

Systems Development Laboratory, Hitachi Ltd.

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HSDL
Harmonize the Society with Digital Life

Contents

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Characteristics of SDO

Ref. RFP "PIM and PSM for SDO"

- SDOs
  - represent hardware devices and software components,
  - are highly distributed,
  - provide manifold, different functionalities (e.g. TV set, refrigerator, light switch),
  - abstract underlying heterogeneous technologies (e.g. PowerLine, EIB, Jini, UPnP, HAVi, JXTA, proprietary technologies)
  - have standardized interfaces independent from underlying technologies, hardware and software platforms, and programming languages,
  - have a highly dynamic behavior (with temporary unavailability and mobility),
  - enable a dynamic discovery of their functionality by services and applications, user interfaces, or other SDOs,
  - can be organized in a hierarchical (i.e. resulting in composite SDOs) or decentralized manner,
  - may be mobile or stationary.

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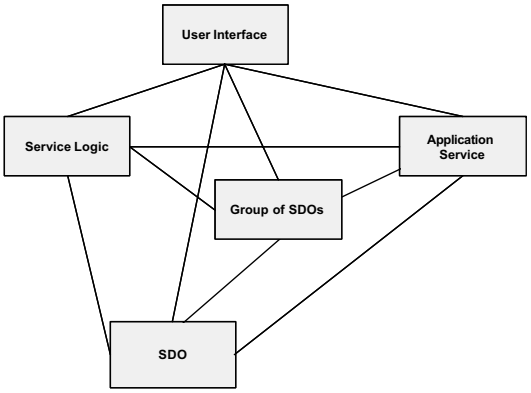
Generic information model for SDO

Ref. "SDO Whitepaper"

- SDO
  - Logical representation of hardware device and/or software component
- Service logic
  - A framework to organize SDO group
- SDO group
  - A set of SDOs to provide an application service



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Problems to be solved

- Heterogeneous devices and networks
  - Heterogeneous functional organization
  - Heterogeneous communication model
- Service extensibility
  - Embedded software organized to form a service
  - Updatable software on a device
- Scalability
  - No master in a borderless system
  - Alternates to provide a service
  - Changing device availability (status, etc.)
- QoS, …

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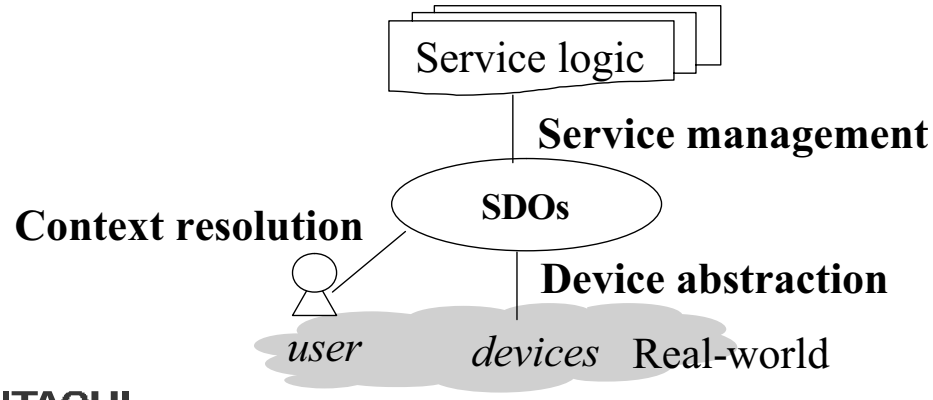
2. Platform Independent Model

PIM – required feature

- Logical intermediary between service and real-world
- Service
  - described by service logic
  - describing behavior between SDOs
- SDO
  - Map service logic to available devices
  - Construct/re-construct SDO group according to context



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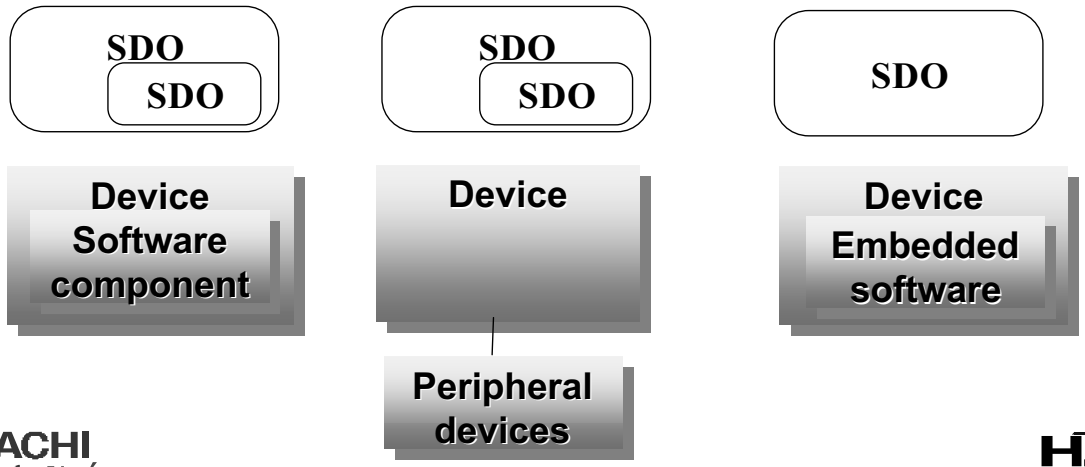
PIM –device abstraction

- SDO: logical representation of hardware device and software component
  - Two kinds of devices
    - Active device:
      - updating software, managing itself and passive devices
    - Passive device
      - providing embedded functions in response requests from other devices
  - Changing structure by
    - Extending/removing peripheral devices
    - Installing/uninstalling software component
- Composite model
  - Aggregation of self-described unit for extensible representation



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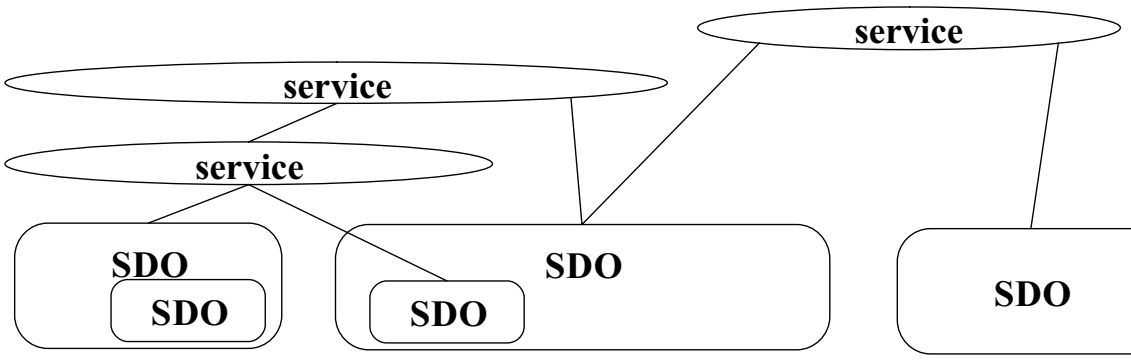
PIM –service management

- Dynamic organization of multiple service
  - Hierarchical usage
    - a service using other service as a composing function
  - Shared usage
    - part of function/resource is used for multiple service
- Membership management for
  - Lifecycle control, exclusive access, etc.



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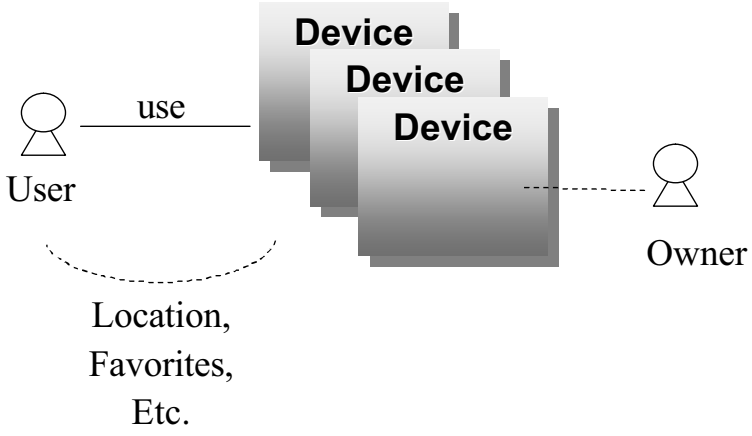
PIM –context resolution

- User dependent criteria for device selection
  - Location, Owner of a device, Current user, etc.
- Infrastructure dependent criteria
  - Other candidates to form an application service, etc.
- Extensible relationships for device selection, alternation, etc.



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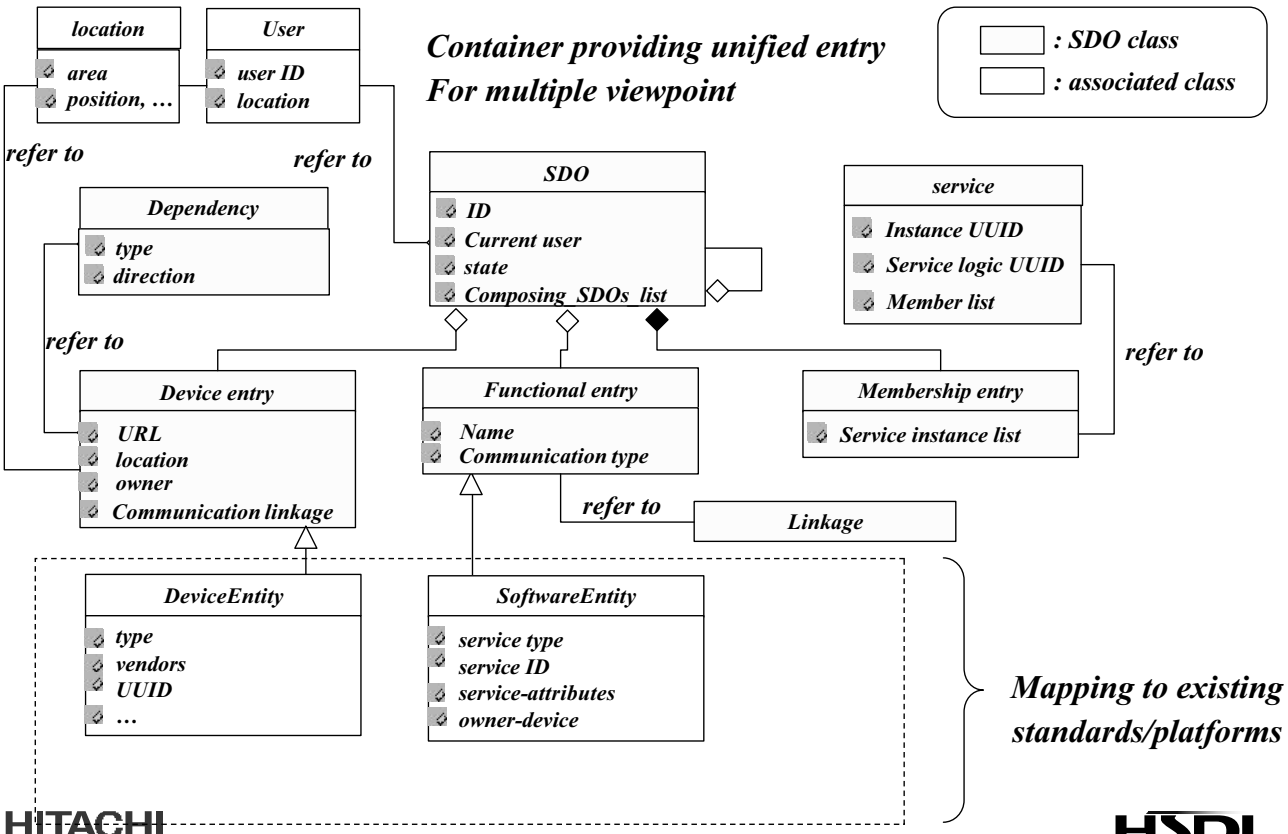
PIM – SDO resource data model



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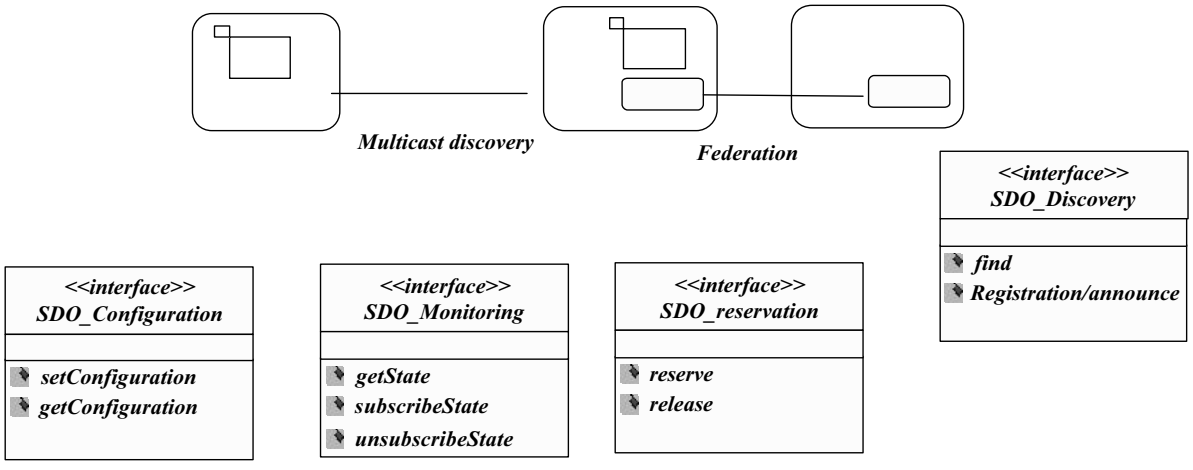
PIM – common interface

- SDOs wrapping heterogeneous technologies
  - Bi-directional model (request-response, publish-subscribe)



Operation to SDO and/or resource data of SDOs

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3. Platform Specific Model

Webservice

UPnP

Others

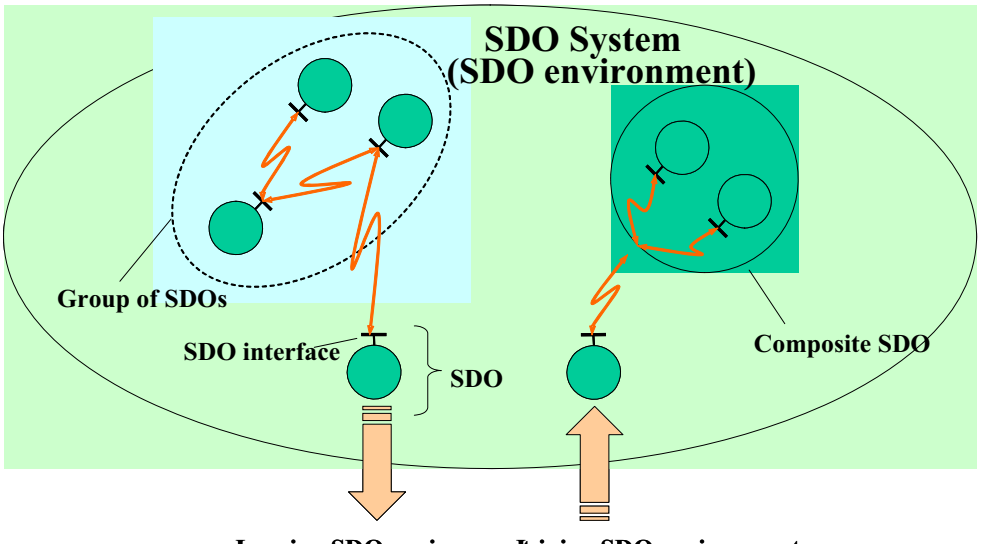
SDO model for Robotics

January 30, 2005

Burlingame, CA

Brief introduction of SDO

- Unified model for hardware devices and software components
- Provide a set of interface to access properties



Why we need SDO model for Robotics?

However, too highly abstract;

We need an interoperable implementation.

- interface
- data model

Objective for this RFP

This RFP solicits proposals for a Platform Independent Model (PIM) and a CORBA Platform Specific Model (PSM) of the SDO model that promotes the integration of robotic systems based on modular components. This is a kind of domain specific extensions of SDO (sdo/04-04-01).

For further details see Chapter 6 of this document.

Objective for this RFP

< Note to RFP Editors: Provide a brief statement of the problem>

This RFP solicits proposals for the following:

- <Item>
- <Item>
- <Item>

For further details see Chapter 6 of this document.

6.1 Problem Statement

With the rapid progress in computer and communication technology, the robot systems are fast becoming larger and more complicated. Therefore, there is a real need for the software technologies for efficient developments. Now various software technologies are proposed and implemented respectively in the field of robotics.

6.1 Problem Statement

Unfortunately, most of these pioneering initiatives are developed independently of the others, driven by specific applications and objectives. In order to settle this state of chaos, we would like to define a common SDO model for the robotic applications.

AIST

6.1 Problem Statement

< Note to RFP Editors: Describe the nature of the problem or need that this RFP is addressing. Include contextual information that will help the understanding of the reader. >

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6.2 Scope of Proposals Sought

- The proposals sought through this RFP are expected to describe the SDO model for robotic applications in form of a PIM. This PIM shall describe the interfaces between the components involving robot technologies.
- This robotic SDO promotes the integration of robotic systems based on modular components. And this domain specific model makes easy to integrate large-scale complex multi-vender robot systems.

AIST

6.2 Scope of Proposals Sought

- In general, robot systems interacted with real world have various limitations resulting from its hardware, such as the limited performance of processing units, the limited network bandwidth, time constraints and so on.
- In this RFP, however, we focus on the logical framework model only. So the hardware dependent parts of the model are out of scope. In the future RFP, we will define the hardware dependent parts of the model.

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6.2 Scope of Proposals Sought

- The robotic SDO interface should provide general demand-driven object oriented interfaces and also provide data driven interfaces with push/pull interaction between the components. And its data model is also important.
- The robotic SDO possesses its own thread of execution to provide its unique service. In order to administrate its autonomous activity, we have to define the state of the robotic SDO and its transitions.

AIST

6.2 Scope of Proposals Sought

The functions requested in this RFP comprise:

- Demand-driven / data-driven interfaces
- System configuration data model (hardware independent parts only)
- Own activity model and its state transitions
- Minimum set of functions for system administration

These functions depict the minimum functionality needed to build an robotic SDO system.

6.2 Scope of Proposals Sought

PSMs shall map the solicited PIM at least to CORBA IDL and the UML Profile for CORBA.

Although the PIM and the PSM(s) define interfaces for components, these interfaces are independent from the CORBA Component Model.

AIST

6.2 Scope of Proposals Sought

< Note to RFP Editors: Describe the composition and main characteristics of the solution for which proposals are being sought. >

6.3 Relationship to Existing OMG Spec.

This robotic SDO is a kind of domain specific extensions of PIM and PSM for SDO specification (sdo/04-04-01).

AIST

6.3 Relationship to Existing OMG Spec.

< Note to RFP Editors: Describe the possible relationships that proposals may have to existing OMG specifications in terms of potential reuse of models, mappings, interfaces, and potential dependencies on pervasive services and facilities. >

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6.4 Related Activities, Documents and Standards

< Note to RFP Editors: List documents, URLs, standards, etc. that are relevant to the problem and the proposals being sought. Also describe any known overlaps with specification activities or specifications, competing or complementary, from other standards bodies. >

AIST

6.4 Related Activities, Documents and Standards

< Note to RFP Editors: List documents, URLs, standards, etc. that are relevant to the problem and the proposals being sought. Also describe any known overlaps with specification activities or specifications, competing or complementary, from other standards bodies. >

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6.5 Mandatory Requirements

For all the mandatory requirements, proposals shall provide a platform-independent model and at least one CORBA specific model.

- Proposals shall specify a resource data model for SDOs, which describes their capabilities and properties. This model shall identify all the necessary and relevant data to describe them and contain the corresponding data structures and relationships.

AIST

6.5 Mandatory Requirements

< Note to RFP Editors: Describe the requirements that proposals must satisfy i.e. for which proposals must specify an implementable solution. Avoid requirements that unnecessarily constrain viable solutions or implementation approaches.

Mandatory requirements should be stated using phrases such as:

"Proposals shall provide...", or
"Proposals shall support the ability to..."

Describe any modeling-related requirements.

6.5 Mandatory Requirements

Some guidelines for modeling requirements:

A PIM and one or more PSMs may be required by the RFP. RFPs may call for the specification of a PIM corresponding to one or more pre-existing PSMs, or for one or more PSMs corresponding to a pre-existing PIM.

If an RFP requests a PIM, it shall state explicitly of what technology or technologies the PIM shall be independent. For example, an RFP might state that a PIM should be independent of programming languages, distributed component middleware and messaging middleware. If an RFP requests a PSM, it shall state explicitly to what technology or technologies the PSM shall be specific, such as CORBA, XML, J2EE etc.

If it is anticipated that a related PIM, PSM or mapping will be requested by a successor RFP, that fact should be mentioned.

AIST

6.5 Mandatory Requirements

1. Service specifications (Domain-specific, cross-domain or middleware services).

For RFPs for service specifications, “Platform” usually refers to middleware, so “Platform Independent” means independent of middleware, and “PlatformSpecific” means specific to a particular middleware platform. Such RFPs should typically require that UML be used to specify any required PIMs. Variance from this drafting guideline must be defended to the Architecture Board.

Furthermore, such RFPs may require a submitted PSM to be expressed in a UML profile or MOF-compliant language that is specific to the platform concerned (e.g. for a CORBA-specific model, the UML profile for CORBA [UMLC]). Alternatively, the RFP may require that the PSM be expressed in the language that is native to the platform in question (e.g. IDL). If the RFP requests both, it must make clear which one is to be normative.

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6.6 Optional Requirements

< Note to RFP Editors: Make requests for optional features which proposals may satisfy. While the satisfaction of requests is desirable (and will be taken into account in evaluating the submissions), proposals are not required to satisfy them, i.e. specify an implementable solution.

Requests should be stated using phrases such as:

"Proposals may provide...", or
"Proposals may support the ability to...">

AIST

6.6 Optional Requirements

< Note to RFP Editors: Make requests for optional features which proposals may satisfy. While the satisfaction of requests is desirable (and will be taken into account in evaluating the submissions), proposals are not required to satisfy them, i.e. specify an implementable solution.

Requests should be stated using phrases such as:

"Proposals may provide...", or
"Proposals may support the ability to...">

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6.7 Issues to be discussed

< Note to RFP Editors: Describe the issues that proposals should discuss. Issues to be discussed shall be stated in terms of phrases such as:

"Proposals shall discuss how... ", or
"Proposals shall include information on...", or
"Proposals shall provide the design rationale for...".>

These issues will be considered during submission evaluation. They should not be part of the proposed normative specification. (Place them in Part I of the submission.)

AIST

6.7 Issues to be discussed

< Note to RFP Editors: Describe the issues that proposals should discuss. Issues to be discussed shall be stated in terms of phrases such as:

"Proposals shall discuss how... ", or
"Proposals shall include information on...", or
"Proposals shall provide the design rationale for...".>

These issues will be considered during submission evaluation. They should not be part of the proposed normative specification. (Place them in Part I of the submission.)

6.8 Evaluation Criteria

- The proposed PIMs should be compliant with the OMG UML standard. The proposed CORBA-specific PSMs should be compliant with the CORBA standard. Any metadata described by the proposed model should be compliant with the XMI standard.
- Proposals should show an example of robotic SDOs and its application using specified model and interface.
- Proposals will be evaluated in terms of consistency in their specifications, versatility across different application domains, and extensibility.

AIST

6.8 Evaluation Criteria

< Note to RFP Editors: Conformance to the mandatory requirements along with consideration of the optional requirements and issues to be discussed, are implied evaluation criteria. RFP authors should describe any additional criteria that submitters should be aware of that will be applied during the evaluation process. >

6.9 Other information unique to this RFP

None.

AIST

6.9 Other information unique to this RFP

< Note to RFP Editors: Include any further information pertinent to this RFP that does not fit into the sections above, or which is intended to override statements in the Chapters 1 to 5. >

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6.10 RFP Timetable

The timetable for this RFP is given below. Note that the TF or its parent TC may, in certain circumstances, extend deadlines while the RFP is running, or may elect to have more than one Revised Submission step. The latest timetable can always be found at the OMG *Work In Progress* page at http://www.omg.org/schedules/ under the item identified by the name of this RFP. Note that "<month>" and "<approximate month>" is the name of the month spelled out; e.g., January.

A.1 Reference Specific to this RFP

< Note to RFP Editors: Insert any references specific to this RFP that are referred to in the Objective Section, Section 6 and any additional sections in the same format as in Section B.1 and in alphabetical order in this section. >

A.2 Glossary Specific to this RFP

< Note to RFP Editors: Insert any glossary items specific to this RFP that are used in Section 6 and any additional sections in the same format as in Section B.2 and in alphabetical order in this section. >

B. General Reference and Glossary

< Note to RFP Editors: Append additional appendices if needed here and update the list and brief description of appendices in Chapter 1. >

sdo/05-01-08

SDO

Super Distributed Objects

Date: Friday, 4th February, 2005
Reporting: Tetsuo Kotoku
Group email: sdo@omg.org
robotics@omg.org

➢Highlights from this Meeting:

- **Robotics Showcase (Mon.) 36 sign-ups**
- Tutorial Presentation [sdo/05-01-04]

  (Prof. Kazuhiro Kosuge, Tohoku Univ.)
- Roadmap [sdo/05-01-03]
  - SDO model profile for Robotics Domain
  - Robotics Technology SIG Proposal
- Motion of Chartering Robotics SIG [sdo/05-01-05]

SDO

Super Distributed Objects

Date: Friday, 4th February, 2005
Reporting: Tetsuo Kotoku
Group email: sdo@omg.org
robotics@omg.org

➢Next Meeting (Athens, Greece):

- **SDO-SIG Meeting [Mon.]**
  - SDO model applying to Robotics Domain (review RFP draft)
- **Robotics-SIG Meeting [Tue.]**
  - Robotics Technology: initial survey (discussion of RFI draft)

SDO Meeting Minutes – Burlingame (sdo/05-01-09)

OMG Documents Generated

sdo/05-01-01 SDO Final Agenda for Burlingame Meeting (Tetsuo Kotoku)
sdo/05-01-02 Opening Brief Introduction: (Tetsuo Kotoku)
sdo/05-01-03 Roadmap for Robotics Activites (Tetsuo Kotoku)
sdo/05-01-04 Invited Talk (Kazuhiro Kosuge)
sdo/05-01-05 Motion to Charter on Robotics Domain SIG (Tetsuo Kotoku)
sdo/05-01-06 Brief Introduction to SDO (Seiichi Shin)
sdo/05-01-07 Discussion of Draft RFP ver.0.9 (Tetsuo Kotoku)
sdo/05-01-08 SDO DSIG Burlingame DTC Pleanary Presentation (Tetsuo Kotoku)
sdo/05-01-09 Minutes of Washington DC Meeting (Tetsuo Kotoku)

Agenda

13:00-13:15 Welcome and Review SDO Agenda
13:15-14:15 Presentation by Prof. Kazuhiro Kosuge (Tohoku Univ.)
14:15-14:45 Robotics Domain SIG motion proposal
15:00-15:45 Brief Introduction to SDO by Prof. Seiichi Shin (Tokyo Univ.)
15:45-16:30 SDO Model for Robotics Domain Discussion
16:30-17:00 Free discussion (What is robotics? etc.)
17:00-17:30 Next Meeting Agenda Discussion

Minutes

30 January, Sunday

Tetsuo KOTOKU, presiding co-chair
Meeting Week – Kick-off

- Called meeting to order at 13:00
- Tetsuo Kotoku introduced preceding activities.
  - ✓ sdo/05-01-02 Opening Brief Introduction
- Tetsuo Kotoku reviewed the Roadmap.
  - ✓ sdo/05-01-03 Roadmap for Robotics Activites

Invited Talk :

- Kazuhiro Kosuge (Tohoku Univ.) presented his research activities on Human-robot collaboration system, Power assist system by using interesting video clips.
  - ✓ sdo/05-01-04 Invited Talk

Motion Proposal for Chartering Robotics Domain SIG

- Tetsuo Kotoku presented the draft charter.
- Tetsuo Kotoku asked for volunteers to chair this new SIG.
- **Motion** to issue the charter on SDO DSIG. Motion adopted by unanimous consent.
  - ✓ sdo/05-01-05 Charter on Robotics Domain SIG

Brief Introduction to Super Distributed Objects Specification

- Siichi Shin (Univ. of Tokyo), one of SDO co-chair, made a brief introduction to Super Distributed Objects specification.
  - ✓ sdo/04-11-06 Brief Introduction to SDO

SDO Model for Robotics Domain Discussion

- Tetsuo KOTOKU presented RFP template items, and discussed each item.
- There was an open discussion about what is robotics.
- Definition attempted by Claude Baudoin (Schlumberger):
  For the purpose of the OMG's SDO SIG and Robotics SIG, a robot is:
  a. a system composed of hardware and software components.
  b. which, using external inputs,
  c. produces actions or exhibits behaviors,
  d. that interact with its physical environment
  e. in a way that is traditionally associated with human intelligence and capabilities.
- Note that Chris Cooper (mBus) disagreed with letter "e" above.
- Alex Foessel, Anthony Catalfano (John Deere), Micheal Zeitzew (Navcom Technology) et al. listed up elements and actions associated with robots follows:
  Motion
  Sensors
  Kinematics
  High dynamics (1000 Hz control loops)
  Distributed
  Should have body
  Physical properties
  Have dimensions
  Hierarchical
- ***Action:*** No specific action was taken.

Meeting Wrap-up, Plan for Athens

- Tetsuo Kotoku presented the Draft Agenda for the next meeting.

ADJOURNED @ 17:30 pm

Prepared and submitted by Tetsuo Kotoku (AIST)