

## DCP Modelica Association Project application

### Project name

Distributed Co-Simulation Protocol (abbreviated as DCP)

### Project purpose

Development, standardization and promoting the Distributed Co-Simulation Protocol (DCP) definition, a sustainable result of the ITEA3 Project ACOSAR. The intention is to specify a semantics- and a message-based interface protocol for high performant co-simulations via networks. Co-simulation slaves can be represented by non-/soft-/hard-real-time software and/or hardware components. DCP can be used for software/model/hardware-in-the-loop simulations and control applications.

### License of project results

DCP specifications are published under the CC-BY-SA (Creative Common Attribution ShareAlike 4.0 International) license (or a follow-up version of this license), a human-readable summary of the license text as well as a link to the license text itself is available from <https://creativecommons.org/licenses/by-sa/4.0/>

Source code or other data, such as C-header and XML-schema files, that accompany the specification documents are provided under the BSD 2-Clause license (or a follow-up version of this license). A human-readable summary of the license text is available from <http://www.opensource.org/licenses/bsd-license.html>

### Project rules

The project rules are according to the rules of the Modelica Association Bylaws. In particular:

#### Project members

Membership in this project is open to companies, institutes, universities and other organizations, which agree to support the purpose of this project and follow the project rules. There is no individual membership for this project. An organizational member has to appoint an individual person, and an optional deputy, affiliated to the organization to represent the organization in all matters related to this project. This person is the organization's liaison member.

Project members are divided into two groups that have different rights:

#### Group 1: Steering Committee

1. The members define DCP policy, strategy, feature roadmap, and future DCP releases.
2. Members are organizations that actively support DCP. For the matter of clarity: A member need not to be a member of the Modelica Association.
3. Members have voting rights (one vote for one organization, details see below).
4. Members elect a project leader and a deputy project leader for 2 years with qualified majority (see below). The project leader must be an individual member of the Modelica Association, or must be the liaison member of an organizational member of the Modelica Association. Both have to be affiliated with a DCP Steering Committee member. The

deputy supports the project leader and takes over the project leader's duties temporarily when the project leader is not available for a longer period.

5. The Steering Committee is open for additional members that proofed to actively support DCP. Requirements: Must have (a) participated at least at two DCP meetings (face to face or via electronic media) in the last 24 months, (b) must either provided the DCP standard or part of it in a commercial or open source tool, and/or must actively use DCP in industrial projects, (c) must have signed the Contributor License Agreement (CLA, see below), (d) the members of the Steering Committee agree with qualified majority (see below).

#### **Group 2: Advisory Committee**

1. Consists of organizational members that have no voting rights.
2. Contribute to the design of DCP.
3. Have access to the internal infrastructure of the DCP design (svn, trac, mailing lists, meeting minutes, etc.).
4. The Advisory Committee is open for additional members that proofed to actively support DCP. Requirement: Must have participated at least at two DCP meetings in the last 24 months and must have signed the Contributor License Agreement (CLA, see below). No voting is necessary for becoming Advisory Committee member.

Project members that have not participated in meetings and have not contributed to the project for more than two years and did not react on a four weeks prior notice lose their membership after a vote with qualified majority. These organizations are excluded from the quorum for this decision.

**Visitors** – Organizations that contribute to the DCP Project and are neither in Group 1 or 2 are called “Visitors”. Visitors have no right to access to the internal infrastructure of the DCP project (svn, trac, mailing lists, etc.).

**Organizations** – An entity and all other entities that control, are controlled by, or are under common control with that entity are considered to be a single organization. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

**Voting** – Voting is performed by the Steering Committee members according to § 14 of the MA Bylaws but with a quorum of 66 % of the members. If explicitly decided by the Steering Committee members, every voting can be performed electronically according to § 14 of the MA Bylaws.

New releases of the DCP specification and accompanying source code (like C-header or xml schema files) shall be approved by the Steering Committee members with a qualified majority of the number of votes submitted.

**Meetings** – DCP-meetings are announced in the respective mailing lists:

- Steering Committee meetings via [steering@dcp-standard.org](mailto:steering@dcp-standard.org), the announcement must be at least 3 weeks in advance
- all other meetings via the other mailing lists ([design@dcp-standard.org](mailto:design@dcp-standard.org), and/or [2](mailto:info@dcp-</a></li></ul></div><div data-bbox=)

[standard.org](http://standard.org))

The Steering Committee decides whether a Steering Committee meeting is public or not, the default is private to ensure an efficient procedure. All other meetings are open to the public. The meeting material (minutes, documents, presentations) is available on the DCP-repository. A publication of this material needs approval of all participants.

**Development** – The development of DCP specifications will be organized via a Change Process similar to the one defined within the FMI Development Process.

All organizations that contribute to a DCP specification and related works have to sign the common MA Contributor License Agreement (available soon) by a responsible representative of the company they are affiliated with.

**Publication** – DCP specifications are published by the Modelica Association after confirmation by the MA members (vote with simple majority).

### Initial project members *(alphabetically ordered)*

#### Initial members of the Steering Committee

ACOSAR project partners that contributed to the DCP design and either have released software with DCP support, or evaluated DCP in industrial use cases, and are interested to further contribute to DCP in the future. Proposal for initial members (alphabetical order):

<b>First name</b>	<b>Surname</b>	<b>Organization</b>
Martin	Benedikt	VIRTUAL VEHICLE Research Center (deputy)
Torsten	Blochwitz	ESI-ITI GmbH
Stefan	Ewald	ks.MicroNova GmbH
Martin	Krammer	VIRTUAL VEHICLE Research Center
Lars	Mikelsons	Robert Bosch GmbH
Jean-Marie	Quelin	Renault SAS
Andreas	Soppa	Volkswagen AG
Viktor	Schreiber	Ilmenau Technical University
Klaus	Schuch	AVL List GmbH
Stefan	Walter	dSPACE GmbH
Monika	Wierse	Dr. Ing. h.c. F. Porsche AG
Stefan	Materne	TWT GmbH Science & Innovation
Josef	Zehetner	AVL List GmbH (deputy)

#### Initial members of the Advisory Committee

ACOSAR project partners that contributed to the DCP design or evaluated DCP in industrial use cases, and are interested to further contribute to DCP in the future. Proposal for initial members (alphabetical order):

<b>First name</b>	<b>Surname</b>	<b>Organization</b>
Natarajan	Nagarajan	ETAS GmbH
Chrisitan	Kater	Hannover Leibniz University

## Initial project leader

Proposal for the **initial project leader**: DI Martin Krammer  
(he has successfully headed the DCP 1.0 specification development)

Proposal for the **initial deputy project leader**: Dr. Klaus Schuch  
(he participated in DCP specification and is strongly involved in FMI development)