



---

## Licensed Program Specifications

---

# Dymola 7.4

Dymola (Dynamic Modeling Laboratory) is a complete and powerful tool for modeling and simulation of integrated and complex systems for use within automotive, aerospace, energy, robotics, packaging, process and other industries.

---

## [Table of Contents](#)

### [Hardware Requirements](#)

### [Software Requirements](#)

### [Licensed Program Materials Availability](#)

### [Supplemental Terms](#)

- [Type/Duration of Program Services](#)
- [Designated Machine Identification](#)
- [Test Period](#)
- [Use-Based Charges/Usage Restrictions](#)
- [Softcopy Publications](#)

### [Warranty](#)

---

## [Hardware Requirements](#)

**Hardware requirements for Microsoft® Windows® XP, Windows Vista, Windows 7 and Linux:**

- At least 1 GB RAM
  - At least 400 MB disk space
-

## Software Requirements

**Software requirements for Microsoft Windows XP, Windows Vista, Windows 7 and Linux:**

- The Dymola Multi-Engineering Modeling and Simulation environment is available for PC/Windows XP/Vista/Windows 7
  - For the Windows platform, Microsoft C/C++ compiler must be installed separately. Installation instructions are in the Dymola manual.
  - Red Hat Enterprise Linux 5.1 and compatible systems available in October 2009, using the native C compiler.
- 

## Licensed Program Materials Availability

- Restricted materials - No. This licensed program is available without source licensed program materials. It is available in object code only.
- 

## Supplemental Terms

### Type/Duration of Program Services (also referred to as “Support Services”)

You will find all necessary information including processes, on the Dassault Systemes website:

<http://www.3ds.com/terms/support-policies>

### Separately Licensed Code

In accordance with the terms of the Customer Agreement and the Attachment for Product Lifecycle Management Version 6 Programs, or equivalent agreement(s) between us, the following software is Separately Licensed Code, and licensed under the terms of the Modelica License 2 set forth below.

### **Modelica Standard Library**

#### **The Modelica License 2**

**Preamble.** The goal of this license is that Modelica related model libraries, software, images, documents, data files etc. can be used freely in the original or a modified form, in

open source and in commercial environments (as long as the license conditions below are fulfilled, in particular sections 2c) and 2d). The Original Work is provided free of charge and the use is completely at your own risk. Developers of free Modelica packages are encouraged to utilize this license for their work.

The Modelica License applies to any Original Work that contains the following licensing notice adjacent to the copyright notice(s) for this Original Work:

**Licensed by <name of Licensor> under the Modelica License 2**

**1. Definitions**

- a. "License" is this Modelica License.
- b. "Original Work" is any work of authorship, including software, images, documents, data files, that contains the above licensing notice or that is packed together with a licensing notice referencing it.
- c. "Licensor" is the provider of the Original Work who has placed this licensing notice adjacent to the copyright notice(s) for the Original Work. The Original Work is either directly provided by the owner of the Original Work, or by a licensee of the owner.
- d. "Derivative Work" is any modification of the Original Work which represents, as a whole, an original work of authorship. For the matter of clarity and as examples:
  - i. Derivative Work shall not include work that remains separable from the Original Work, as well as merely extracting a part of the Original Work without modifying it.
  - ii. Derivative Work shall not include (a) fixing of errors and/or (b) adding vendor specific Modelica annotations and/or (c) using a subset of the classes of a Modelica package, and/or (d) using a different representation, e.g., a binary representation.
  - iii. Derivative Work shall include classes that are copied from the Original Work where declarations, equations or the documentation are modified.
  - iv. Derivative Work shall include executables to simulate the models that are generated by a Modelica translator based on the Original Work (of a Modelica package).
- e. "Modified Work" is any modification of the Original Work with the following exceptions: (a) fixing of errors and/or (b) adding vendor specific Modelica annotations and/or (c) using a subset of the classes of a Modelica package, and/or (d) using a different representation, e.g., a binary representation.
- f. "Source Code" means the preferred form of the Original Work for making modifications to it and all available documentation describing how to modify the Original Work.
- g. "You" means an individual or a legal entity exercising rights under, and complying with all of the terms of, this License.

- h. "Modelica package" means any Modelica library that is defined with the "package <Name> ... end <Name>," Modelica language element.
- 2. **Grant of Copyright License.** Licensor grants You a worldwide, royalty-free, non-exclusive, sublicensable license, for the duration of the copyright, to do the following:
  - a. To reproduce the Original Work in copies, either alone or as part of a collection.
  - b. To create Derivative Works according to Section 1d) of this License.
  - c. To distribute or communicate to the public copies of the *Original Work* or a *Derivative Work* under *this License*. No fee, neither as a copyright-license fee, nor as a selling fee for the copy as such may be charged under this License. Furthermore, a verbatim copy of this License must be included in any copy of the Original Work or a Derivative Work under this License. For the matter of clarity, it is permitted A) to distribute or communicate such copies as part of a (possible commercial) collection where other parts are provided under different licenses and a license fee is charged for the other parts only and B) to charge for mere printing and shipping costs.
  - d. To distribute or communicate to the public copies of a *Derivative Work*, alternatively to Section 2c), under *any other license* of your choice, especially also under a license for commercial/proprietary software, as long as You comply with Sections 3, 4 and 8 below. For the matter of clarity, no restrictions regarding fees, either as to a copyright-license fee or as to a selling fee for the copy as such apply.
  - e. To perform the Original Work publicly.
  - f. To display the Original Work publicly.
- 3. **Acceptance.** Any use of the Original Work or a Derivative Work, or any action according to either Section 2a) to 2f) above constitutes Your acceptance of this License.
- 4. **Designation of Derivative Works and of Modified Works.** The identifying designation of Derivative Work and of Modified Work must be different to the corresponding identifying designation of the Original Work. This means especially that the (root-level) name of a Modelica package under this license must be changed if the package is modified (besides fixing of errors, adding vendor specific Modelica annotations, using a subset of the classes of a Modelica package, or using another representation, e.g. a binary representation).
- 5. **Grant of Patent License.** Licensor grants You a worldwide , royalty-free, non-exclusive, sublicensable license, under patent claims owned by the Licensor or licensed to the Licensor by the owners of the Original Work that are embodied in the Original Work as furnished by the Licensor, for the duration of the patents, to make, use, sell, offer for sale, have made, and import the Original Work and Derivative Works under the conditions as given in Section 2. For the matter of clarity, the license regarding Derivative Works covers patent claims to the extent as they are embodied in the Original Work only.
- 6. **Provision of Source Code.** Licensor agrees to provide You with a copy of the Source Code of the Original Work but reserves the right to decide freely on the

- manner of how the Original Work is provided. For the matter of clarity, Licensor might provide only a binary representation of the Original Work. In that case, You may (a) either reproduce the Source Code from the binary representation if this is possible (e.g., by performing a copy of an encrypted Modelica package, if encryption allows the copy operation) or (b) request the Source Code from the Licensor who will provide it to You.
7. **Exclusions from License Grant.** Neither the names of Licensor, nor the names of any contributors to the Original Work, nor any of their trademarks or service marks, may be used to endorse or promote products derived from this Original Work without express prior permission of the Licensor. Except as otherwise expressly stated in this License and in particular in Sections 2 and 5, nothing in this License grants any license to Licensor's trademarks, copyrights, patents, trade secrets or any other intellectual property, and no patent license is granted to make, use, sell, offer for sale, have made, or import embodiments of any patent claims. No license is granted to the trademarks of Licensor even if such trademarks are included in the Original Work, except as expressly stated in this License. Nothing in this License shall be interpreted to prohibit Licensor from licensing under terms different from this License any Original Work that Licensor otherwise would have a right to license.
  8. **Attribution Rights.** You must retain in the Source Code of the Original Work and of any Derivative Works that You create, all author, copyright, patent, or trademark notices, as well as any descriptive text identified therein as an "Attribution Notice". The same applies to the licensing notice of this License in the Original Work. For the matter of clarity, `-author notice_` means the notice that identifies the original author(s).  
You must cause the Source Code for any Derivative Works that You create to carry a prominent Attribution Notice reasonably calculated to inform recipients that You have modified the Original Work. In case the Original Work or Derivative Work is not provided in Source Code, the Attribution Notices shall be appropriately displayed, e.g., in the documentation of the Derivative Work.
  9. **Disclaimer of Warranty.** *The Original Work is provided under this License on an "as is" basis and without warranty, either express or implied, including, without limitation, the warranties of non-infringement, merchantability or fitness for a particular purpose. The entire risk as to the quality of the Original Work is with You.* This disclaimer of warranty constitutes an essential part of this License. No license to the Original Work is granted by this License except under this disclaimer.
  10. **Limitation of Liability.** Under no circumstances and under no legal theory, whether in tort (including negligence), contract, or otherwise, shall the Licensor, the owner or a licensee of the Original Work be liable to anyone for any direct, indirect, general, special, incidental, or consequential damages of any character arising as a result of this License or the use of the Original Work including, without limitation, damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses. This limitation of liability shall not apply to the extent applicable law prohibits such limitation.

11. **Termination.** This License conditions your rights to undertake the activities listed in Section 2 and 5, including your right to create Derivative Works based upon the Original Work, and doing so without observing these terms and conditions is prohibited by copyright law and international treaty. Nothing in this License is intended to affect copyright exceptions and limitations. This License shall terminate immediately and You may no longer exercise any of the rights granted to You by this License upon your failure to observe the conditions of this license.
12. **Termination for Patent Action.** This License shall terminate automatically and You may no longer exercise any of the rights granted to You by this License as of the date You commence an action, including a cross-claim or counterclaim, against Licensor, any owners of the Original Work or any licensee alleging that the Original Work infringes a patent. This termination provision shall not apply for an action alleging patent infringement through combinations of the Original Work under combination with other software or hardware.
13. **Jurisdiction.** Any action or suit relating to this License may be brought only in the courts of a jurisdiction wherein the Licensor resides and under the laws of that jurisdiction excluding its conflict-of-law provisions. The application of the United Nations Convention on Contracts for the International Sale of Goods is expressly excluded. Any use of the Original Work outside the scope of this License or after its termination shall be subject to the requirements and penalties of copyright or patent law in the appropriate jurisdiction. This section shall survive the termination of this License.
14. **Attorneys' Fees.** In any action to enforce the terms of this License or seeking damages relating thereto, the prevailing party shall be entitled to recover its costs and expenses, including, without limitation, reasonable attorneys' fees and costs incurred in connection with such action, including any appeal of such action. This section shall survive the termination of this License.
15. **Miscellaneous.**
  - a. If any provision of this License is held to be unenforceable, such provision shall be reformed only to the extent necessary to make it enforceable.
  - b. No verbal ancillary agreements have been made. Changes and additions to this License must appear in writing to be valid. This also applies to changing the clause pertaining to written form.
  - c. You may use the Original Work in all ways not otherwise restricted or conditioned by this License or by law, and Licensor promises not to interfere with or be responsible for such uses by You.

### **Excluded Components**

The components listed below are Excluded Components:

ANTLR  
Blowfish

MT19937  
Win32\_dirent.h  
Zlib Compression Library

## **Additional Terms and Conditions**

### **A. SPECIFIC TERMS APPLICABLE TO THE DYMOLA PRODUCTS**

#### **A-1 DEFINITIONS**

Terms that are initially capitalized and not defined in this Appendix but that are defined in the General Terms shall have the meanings ascribed by the General Terms.

**Binary Model Export Option** means an option of the Licensed Program that will allow Licensee to generate Binary Output Files.

**Binary Output File** means output generated by the Binary Model Export Option in the form of an application which may operate independently from any other application and based on the Licensee Model. A Binary Output File (i) contains Value Added Technology and (ii) has a structure dictated by Value Added Technology integrated in the Licensed Program.

**Derivative Work** means work that Licensee has derived from a Licensed Program including Value Added Technology (including without limitation by incorporating, translating, or modifying, in whole or in part, any such Licensed Program), and which, if made without Company's authorization, would constitute copyright infringement. For the avoidance of doubt, (i) a library incorporating in whole or in part one or more libraries provided with the Licensed Programs shall be considered as a Derivative Work of said one or more libraries but (ii) a Licensee Model merely referencing Value Added Technology is not considered as a Derivative Work.

**Licensee Application** means a software program in Object Code format that Licensee has created and which integrates, in whole or in part, Value Added Technology, a Source Code Output File and/or a Binary Output File.

**Licensee Model** means the model used as input in the Licensed Program and whose purpose is to model, simulate and/or control systems.

**Modelica Library** shall designate a model library of reusable components for the modeling of physical and/or technical systems largely but not exclusively written in any version of the Modelica Language i.e. the language as defined by the language specification of the Modelica Association.

**Object Code** means computer-programming code, substantially or entirely in binary form, which is directly executable by a computer.

**Obfuscated Source Code** means a version of the Source Code generated by the Real Time Simulation Option preventing usual viewing and understanding by a qualified programmer of the said Source Code.

**Real Time Simulation Option** means an option of the Licensed Program that will allow Licensee to generate Obfuscated Source Code for the primary purpose of real-time simulation.

**Source Code Generation Option** means an option of the Licensed Program that will

allow the Licensee to process the Licensee Model through value added processing and to generate a Source Code Output File based on said Licensee Model.

**Source Code Output File** means output generated in the form of Source Code by the Source Code Generation option and based on the Licensee Model. A Source Code Output File (i) contains Value Added Technology and (ii) has a structure dictated by the Value Added Technology integrated in the Licensed Program.

**Source Code** means computer-programming code and related comments and procedural and/or declarative code, which is not directly executable by a computer and may be printed out or displayed in a readable form and understandable by a qualified programmer. Source Code also includes header files and other human-readable files necessary for a Licensee Application to be compiled.

**Value Added Technology** means any portion or file of the Licensed Program, in any form or format that may be provided therewith, or any method used during the processing of the Licensee Model by the Licensed Program, which is integrated in the Source Code Output File, the Binary Output File and/or the Licensee Application. Without limitation, libraries (including Modelica Libraries and their templates) of Company or its licensors and know-how or trade secrets of Company included in the Licensed Program shall be deemed Value Added Technology. For purpose of clarity, the method used by the Licensed Program to handle equations during Source Code Output File and Binary Output File generation shall be deemed to be Company's know-how and trade-secret.

## **A-2 GRANT OF LICENSE AND RESTRICTIONS**

It is expressly understood that except as otherwise expressly provided in this Appendix, all terms and conditions of the General Terms applicable to the Licensed Programs, shall apply mutatis mutandis to the Value Added Technology, Binary Output File, Source Code Output File, Licensee Application and/or any Sample Code. The licenses for the Licensed Programs to which this Appendix applies are granted pursuant to the Agreement for the maximum number of Users, whether in node-lock or concurrent use mode.

As an exception to the General Terms, as long as the corresponding license for the License Programs is valid, Company grants Licensee a non-exclusive, non transferable license to prepare Derivative Works of the Value Added Technology only. Licensee may distribute such Derivative Works of the Value Added Technology to third parties exclusively in Object Code form. In addition, Licensee is granted the right to modify, copy, and distribute those parts of the Value Added Technology expressly marked as "Sample Code," if applicable. However, Licensee shall not use, and shall not permit any third party to use, any form or part of the Value Added Technology (including without limitation, such as included in a Source Code Output File, a Binary Output File and/or Obfuscated Source Code) to develop a software program competing or intended to compete directly or indirectly with the Licensed Programs to which this Appendix applies, for whatever purpose.

For the avoidance of doubt and without prejudice to the General Terms, distribution of any element of the Value Added Technology in whatever form (whether "as is" or included in a Derivative Work, Licensee Model, Licensee Application or Binary Output File, and/or "Sample Code"), as authorized pursuant hereto remains subject to the Export



and Reexport laws and regulations provision of the General Terms.

In addition, Licensee shall indemnify, defend, and hold harmless Company against any claim, expense, cost (including reasonable attorneys' fees), judgment, damage, or loss of any kind arising out of or in any way relating to, such distribution and/or any third party's access to or use of such Value Added Technology in whatever form.

Notwithstanding any term or condition of the General Terms, Company shall have no obligation whatsoever to defend, hold harmless or indemnify Licensee against any claim arising out of or in any way relating to the distribution or redistribution, directly or indirectly, including as part of any services, of the Value Added Technology in whatever form (including, without limitation, such as included in a Licensee Model, a Binary Output File or a Licensee Application).

**A-3 PERMITTED GEOGRAPHICAL USE:**

Except as otherwise expressly set forth herein, Licenses for the Licensed Programs, the Sample Code and the Value Added Technology are granted for use only in the country for which the license is purchased.

**A-4 OTHER PERMITTED USE:**

Notwithstanding restrictions of use described in the General Terms applicable to Licensee's use of the Licensed Programs to which this Appendix applies, and subject to compliance with this Appendix and in particular without limitation to section B hereafter, Licensee is authorized to use Licensed Programs for added-value engineering or implementation services. Added-value engineering or implementation services are services to (i) deliver to a third party end user any data, information or deliverable generated specifically for the third party from use by Licensee of the Licensed Programs or (ii) facilitate such specific third party's use of Licensed Programs under the third party's end user license agreement from the Company. However, Licensee may not use the Licensed Programs to develop software code for (i) general distribution by any means, and whether alone or bundled or delivered with any product, data, information, software, or other element, or (ii) any services that do not add value attributable to the intervention of specific human skills, such as, without limitation, in a data services operation or as an applications service provider.

**A-5 SUPPORT SERVICES POLICIES**

Support services policies for the Licensed Programs to which this Appendix applies, can be searched from [www.3DS.com](http://www.3DS.com).

**B. ADDITIONAL TERMS APPLICABLE TO CERTAIN OPTIONS AVAILABLE FOR THE DYMOLA PRODUCTS**

**B-1 ADDITIONAL TERMS APPLICABLE TO SOURCE CODE GENERATION OPTION.**

As long as the Source Code Generation Option license is valid, Company grants Licensee a non-exclusive, non transferable license to use, reproduce and modify (solely for the purpose of improving, adapting to Licensee's needs and bug fixing of Source Code Output File) the Value Added Technology strictly as integrated in the Source Code Output File in order to enable Users to operate the Output File exclusively for Licensee's internal use. In addition, and as long as the license on the Source Code Generation Option is valid, Company grants Licensee a non-exclusive, non transferable license to distribute on a worldwide basis and to any third parties the Value Added Technology exclusively as integrated in a Licensee Application for such third party's internal use. For avoidance of doubt, the Source Code Output File may never be distributed to third parties.

## **B.2 ADDITIONAL TERMS APPLICABLE TO BINARY MODEL EXPORT OPTION**

As long as the Binary Model Export Option license is valid, Company grants Licensee a non-exclusive, non transferable license to use and reproduce the Value Added Technology strictly as integrated in the Binary Output File in order to enable Users to operate the Binary Output File exclusively for Licensee's internal use. Company grants Licensee a non-exclusive, non transferable, license to distribute on a worldwide basis and to any third parties the Value Added Technology exclusively as integrated in the Binary Output File in order to enable such third parties to operate the Binary Output File exclusively for such third parties' internal use.

## **B.3 ADDITIONAL TERMS APPLICABLE TO REAL TIME SIMULATION OPTION**

As long as the Real Time Simulation Option license is valid, Company grants Licensee a non-exclusive, non transferable license to use, reproduce and modify (solely for the purpose of improving, adapting to Licensee's needs and bug fixing of the Obfuscated Source Code) the Value Added Technology strictly as integrated in the Obfuscated Source Code in order to enable Users to operate the Obfuscated Source Code exclusively for Licensee's internal use.

In addition, and as long as the license on the Real Time Simulation Option is valid, Company grants Licensee a non-exclusive, non transferable license to distribute on a worldwide basis and to any third parties the Value Added Technology integrated in the Obfuscated Source Code exclusively as embedded in a Licensee Application for such third parties' internal use.

---

### **Designated Machine Identification**

No

### **Test Period**

No

## **Use-Based Charges/Usage Restrictions**

Charges for this program are based on the number of users logged on at any time. The total number of users logged on may not exceed the number for which you have been authorized. If the total number exceeds your authorization, you must notify Dassault Systemes and obtain additional authorizations.

## **Softcopy Publications**

The program that Dassault Systemes licenses may include licensed publications in displayable or source form. Except as provided in this section, the terms and conditions of the license agreement with Dassault Systemes apply to these publications and to any copies that are made from them.

The licensed publications may be used in displayable or source form on all machines designated for this program. The licensed publications may also be copied and used on other machines in support of authorized use of this program.

To support authorized use of the Program, printed copies of the displayable or source material may be made if the copyright notice and any other legend of ownership is reproduced on each copy or partial copy. <sup>1</sup>

---

## **Warranty**

This program is warranted as specified in the Dassault Systemes license.

Licensed Program Specifications may be updated from time to time and such updates may constitute a change in specifications.

Following the discontinuance of all program services, this program will be provided "As Is" as specified in the Dassault Systemes license.

---

### **Footnotes:**

<sup>1</sup>

#### **Trademarks**

Company, products and services may be trademarks or service marks of related companies.



References in this publication to Dassault Systemes products, programs or services do not imply that Dassault Systemes intends to make these available in all countries in which Dassault Systemes operates.

Any other documentation with respect to this licensed program, including any documentation referenced herein, is provided for reference purposes only and does not extend or modify these specifications.

May 2010