

OCSMP Conventions and Abbreviations

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This list points out a number of SysML notations and abbreviations, plus one or a few other conventions, that experienced modelers come to rely upon but may be passed over in some topical study aids. There are many more conventions and abbreviations, so don't limit your study to this list which, quite intentionally, mentions only the more obscure items. It's your responsibility to cover the topics listed in the Coverage Map, including all of their conventions and abbreviations.

Software-based conventions

If you're an engineer whose practice is far from software, you may not be familiar with these expressions used in the OCSMP examinations. X and Y represent expressions that evaluate to numerical values. A and B represent expressions that evaluate to TRUE or FALSE.

<i>This Expression</i>	<i>Means</i>
[X == Y]	If X equals Y, then...
[X>Y]	If X is greater than Y then...
[X<Y]	If X is less than Y then...
[A B]	If A or B then ...
X = X + 1	Increment X by 1

Dot Notation for property path names

See SysML 1.2, Figure 8.1 (reproduced here): A nested property may be represented by a string of names separated by dots, optionally ending with a colon and its type name. This notation may be used in the OCSMP examinations.

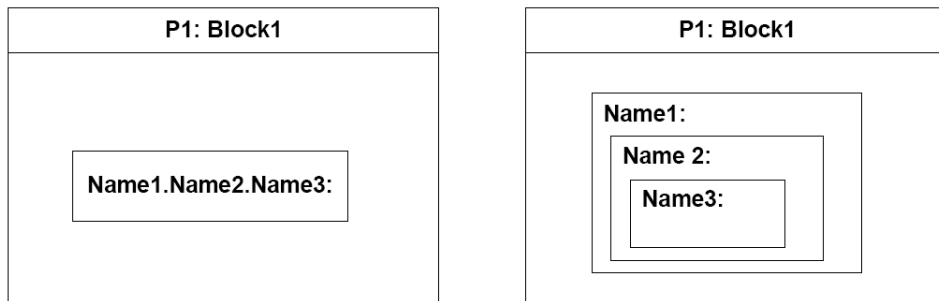


Figure 8.1 - Nested property reference

State Machine Execution Conventions

State machine execution in the OCSMP examinations will always trace following the rules and conventions of SysML and UML (they're the same), and not of any other system.

Abstract Classifiers

A Classifier with isAbstract equals true will have its name written in *italic* font. It may also be noted {abstract} in curly brackets, but this is optional. Abstract classifiers provide a convenient way to define characteristics that will be used multiple times. See AbstractDefinition in Table 8.1, Section 8.2.1, Block Definition Diagram.

Shared Association (Shared Aggregation) –

The OCSMP Model Builder – Intermediate and Advanced examinations may use shared aggregation (white diamond) in some questions, but will not define or use any special semantics for shared aggregation.

This is consistent with the SysML 1.2 specification which says, in Section 8.3.2.2 –

SysML also supports properties with shared aggregation, as shown by a white diamond symbol on an association. Like UML, SysML defines no specific semantics or constraints for properties with shared aggregation, but particular models or tools may interpret them in specific ways.

Conjugated Flow Ports

OCSMP examinations will show conjugated flow ports using the notation adopted in SysML 1.2. (The change was initiated originally by UML.) Inverse coloring is *not* used. Instead, the type name of the conjugate port is preceded by a tilde ~. See, e.g., OMG SysML Specification v 1.2, Table 9.2.