

RSARTE Icons

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This document explains the meaning of the icons that are used in RSARTE. The icons are grouped according to what part of RSARTE they belong to.

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Model Elements

Icons used for the kinds of model elements that are commonly used in RT design models (i.e. models for which transformation to source code is supported):

	Capsule
	Passive class (a.k.a. data class)
	Protocol
	Package
	Model (a top-level package of a model; equivalent with a regular package)
	Artifact. Represents the contents of a generated C++ header and/or implementation file stored in the model.
	Component. Usually represents a transformation configuration which is stored in a separate TC file (hence the small "boxed" arrow in the bottom left corner). Components are also used in passive classes with state machines as a container for call events that refer to trigger operations.
	Call event. Refers to a trigger operation and is used in triggers of a passive class state machine.
	Enumeration
	Enumeration literal
	Primitive type
	Generalization
	Dependency
	Association
	Package import
	Attribute. The colored overlay icon in the bottom right corner shows its visibility. Green for public, yellow for protected and red for private.
	Port
	Operation. The colored overlay icon in the bottom right corner shows its visibility. Green for public, yellow for protected and red for private.
	Parameter. The small arrow indicates the direction of the parameter. In (incoming arrow), Out (outgoing arrow), In-Out (incoming and outgoing arrow) or Return (outgoing "return" arrow).
	Event. The "ingoing" green arrow is used to denote an in-event, while the "outgoing" blue arrow is used to denote an out-event.
	State machine
	State

	Transition. Three different icons are used depending on the kind of transition: external transitions, local transitions and internal transitions.
	Trigger
	Guard
	Region (each state machine or composite state has exactly one region)
	Literal values (specifying for example the default value of an attribute, or value of an enumeration literal). Depending on the type of value different icons are used. The icons shown here represent a string value, an integer value, an unlimited integer value, a boolean value, a null value and an opaque expression respectively.
	Comment (documentation)

Diagrams

Icons used for the kinds of diagrams that are commonly used in RT design models (i.e. models for which transformation to source code is supported):

	Class diagram
	Composite structure diagram
	State machine diagram
	Component diagram

Virtual Folders

Icons used in the Project Explorer to group related elements:

	Model elements
	Diagrams
	Class diagrams
	Composite structure diagrams
	State machine diagrams
	Associations
	Events (groups call events, not protocol events)
	Transformation configurations

Files and Folders

Icons used for file types commonly used in RT models:

	Unloaded model file (.emx). This icon denotes a model file (a.k.a resource) that has not yet been loaded. When the file gets loaded the icon is replaced with the icon of the root element of the model file (usually a package).
	Model file (.emx or .efx).
	Transformation configuration file (.tc or .tcjs)
	C++ implementation file
	C++ header file
	Model project folder
	C/C++ project folder (a.k.a CDT project)
	Other file
	Other folder

Overlay Icons

RSARTE uses a few overlay icons (i.e. small icons placed on top of other icons) to convey various kinds of information about model elements and files.

	Root of fragment file. The small overlay icon in the top left corner of a model element denotes that the model element is the root of a fragment file (.efx). A small yellow file icon shows that the fragment file has been loaded. If the file icon has a red overstrike it shows that the fragment file has not yet been loaded.
	Inherited element. The small hollow arrow in the top left corner of a model element denotes that the model element is inherited. This means it is not defined in the local scope, but in an inherited scope.
	Redefined element. The small blue arrow in the top left corner of a model element denotes that the model element is redefined. This means it is defined in the local scope but redefines an element of the same kind that is defined in an inherited scope.
	Excluded element. The red X in the top left corner of a model element denotes that the model element is excluded. This means it is defined in the local scope and redefines an element of the same kind that is defined in an inherited scope, but is marked as excluded, meaning that it is treated as if it did not exist in the local scope at all.
	Located in a different file. The small "boxed" arrow (usually in the top left corner, but sometimes in the lower left corner) denotes that the element is located in another file, different from the one where the icon appears.
	Component representing an active transformation configuration. The green check mark indicates that the transformation configuration has been set as active.
	Element with problem. A small overlay icon in the bottom left corner of a model element shows that there are problems associated with the model element, or an element it contains. The same overlay icon is also used for files. For problems that are warnings

	a small yellow warning triangle is used, while for error problems a red cross icon is used.
	Bookmarked element. A small overlay icon in the middle of a model element shows that the element has been bookmarked. Use the command *Edit – Add Bookmark* to bookmark an element, and use the Bookmarks view to remove bookmarks or navigate to bookmarked elements.

Diagram Decorator Icons

The following icons may appear as decorators on lines and symbols of a RSARTE diagram. Typically these decorator icons convey certain semantic information about the model element of the decorated line or symbol.

	Composite state. This decorator appears in the bottom right corner of a state symbol to show that the state is composite (i.e. contains a sub state machine). If the sub state machine is inherited (i.e. is defined in a super capsule), a hollow version of this decorator is used instead.
	Guard. This decorator appears on transition lines for transitions that have a guard condition specified.
	Effect. This decorator appears on transition lines for transitions that have an effect code specified.
	Entry behavior. This decorator appears on state symbols for states that have an entry behavior specified.
	Exit behavior. This decorator appears on state symbols for states that have an exit behavior specified.
	Entry and exit behavior. This decorator appears on state symbols for states that have both an entry and an exit behavior specified.
	Port symbol without port model element. When making modifications related to ports when not all models that have diagrams that show the ports are present in the workspace, it is possible to end up with port symbols that are not connected to a port model element. Such port symbols are marked with a "cross circle" and should be deleted from the diagram.
	Internal transitions available. This decorator appears in the top-right corner of a state symbol if the state has at least one internal transition. It can be double-clicked to toggle the visibility of the internal transition compartment of the state symbol.
	Bookmarked symbol or line. Use the command *Edit – Add Bookmark* to bookmark an element, and use the Bookmarks view to remove bookmarks or navigate to bookmarked elements.