

11 SACM Argumentation Metamodel

11.1 General

This clause presents the normative specification for the SACM Argumentation Package. It begins with an overview of the metamodel structure followed by a description of each element.

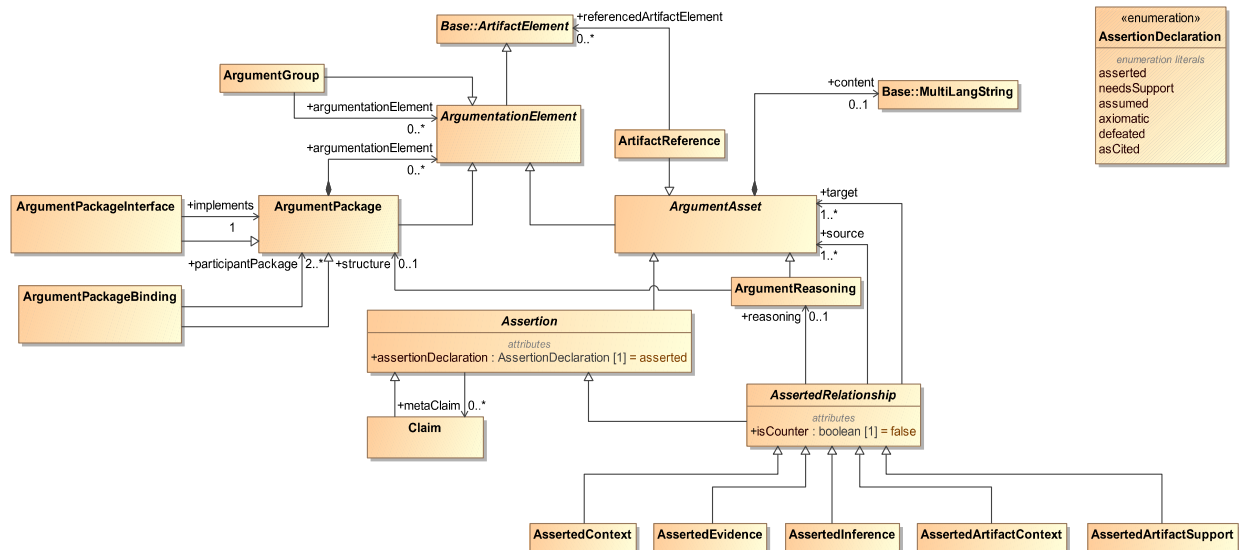


Figure 11.1 - Argumentation Package Diagram

This portion of the SACM model describes and defines the concepts required to model structured arguments. Arguments are represented in SACM through explicitly representing the Claims and citation of artifacts (e.g., as evidence) (ArtifactReference), and the ‘links’ between these elements – e.g., how one or more Claims are asserted to infer another Claim, or how one or more artifacts (referenced by ArtifactReference) are asserted as providing evidence for a Claim (AssertedEvidence). In addition to these core elements, in SACM it is possible to provide additional description of the ArgumentReasoning associated with inferential and evidential relationships, represent counter-arguments and counter-evidence (through isCounter: Boolean), and represent how artifacts provide the context in which arguments should be interpreted (through AssertedContext.)

The packaging of structured arguments into ‘modular’ argument packages is enabled through ArgumentPackages, an optional declaration of an interface for the package (ArgumentPackageInterface) that organizes a specific selection of the ArgumentElements contained within the package, and the ability to link (by means of an argument) two or more argument packages (through an ArgumentPackageBinding). It is also possible within a package to cite elements contained within other argument packages (through AssertedContext).

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Users are able to declare interfaces for their packages through the use of ArgumentPackageInterface. Within an ArgumentPackageInterface, users create citations of the argumentation elements they select to disclose to external parties. Users are able to integrate ArgumentPackages through the use of ArgumentPackageBinding. An ArgumentPackageBinding binds ArgumentPackages together by including the declared ArgumentPackageInterfaces for the ArgumentPackages, it may contain additional argument structures to provide the rationale of the binding.