Glossary

Note: In the blue text at the end of each definition, the number inside parentheses indicates the page on which the glossary term is first used in a given feature.

ABI – short for application binary interface. Generalized PODs ’11 (402), `inline namespace` (1056), `noexcept` Specifier (1089)

abstract class – one from which objects cannot be instantiated. In C++, the term *abstract class* is typically used to imply one that has at least one pure virtual function. Note that an object that is not instantiable for some other reason, say, having no usable constructor (other than a copy constructor), might be said to be not *concrete*; see also concrete class. `final` (1008)

abstract interface – a protocol.

abstract machine – a hypothetical nondeterministic computer defined by the C++ Standard to abstractly model real hardware and provide a basis for describing the semantics of the C++ language absent resource (e.g., memory) constraints. `noexcept` Specifier (1118)

access level – a property, i.e., *public*, *protected*, or *private*, of member `m` of a class `C` as determined by the access level in effect in `C` where `m` was declared. Generalized PODs ’11 (489)

access specifier – one of three keywords, `private`, `protected`, or `public`, used to specify the prevailing access level, governing the situations under which base classes and *declared* members are accessible: *private* base classes and members may be accessed only from within that class or by friends, *protected* base classes and members may also be accessed by derived classes, and *public* base classes and members may be accessed from anywhere. Defaulted Functions (35), Inheriting Ctors (537)

accessible (from a context) – implies, for a given member `m`, that its name is not precluded from use in a given client context `c` due solely to the access level of `m`. For example, if `m` is declared `protected` within a class `S` and `c` is the body of a member function of a class derived from `S`, then `m` is accessible when used in `c`. Note that *accessible* doesn’t necessarily imply *usable*, as `m` might be, e.g., *ambiguous*, deleted, or an ill-formed template specialization. Note that this term is sometimes used informally (and imprecisely) to mean publicly accessible. Generalized PODs ’11 (410), `noexcept` Operator (641), *Rvalue* References (790)

active member – a unique non`static` data member of a union whose lifetime has begun and has not ended. Generalized PODs ’11 (406)

address space – all of the typically sequential, often virtual, almost always byte-addressable computer memory in which objects can be referenced via pointers. Note that, on embedded systems and older computers, the size of the addressable memory can be severely constrained (e.g., by the width of the address bus).

ADL – short for argument-dependent lookup.