Glossary

overloading – the act of creating an overload.

overriding – providing, for a `virtual` function declared in a base type, a suitable implementation specific to a derived type. Inheriting ~~Ctors~~ (539)

owned resource – one, such as dynamic memory, a socket, or a shared-memory handle, that is managed by an object (a.k.a. the *owner*), typically with the expectation that the owner will release the resource when it no longer needs it, e.g., in the owner's destructor. Move operations typically transfer an owned resource from one owner to another. On occasion, a resource can have more than one owner — such as in the case of `std::shared_ptr` — in which case the last owner to be destroyed is typically responsible for releasing the resource. *Rvalue* References (741)

pack expansion – the process of expanding a syntactic pattern followed by an ellipsis (`...`) that contains the name of at least one parameter pack into a comma-separated list of instantiations of that pattern, appropriate for that pack expansion context. Lambdas (590), Variadic Templates (882), `constexpr` Functions '14 (964)

pack-expansion context – the syntactic position at which a pack expansion occurs, which impacts both the kinds of parameter packs that can be expanded and the semantics of that expansion. Variadic Templates (883)

package prefix – an organization-wide unique (ideally very short) identifier that denotes the smallest unit of physical design larger than a component (e.g., `std`, `bsls`, `bslma`, `ball`). This name is often used for the `namespace` containing a collection of related logical entities, such as classes and functions. This same name can be used as the initial part of the name of a physical entity, such as a directory, a component, or a library, to associate it with the `namespace` that comprises its logical content; see **lakos20**, section 2.4, "Logical and Physical Name Cohesion," pp. 297–333, specifically section 2.4.10, "Package Prefixes Are Not Just Style," pp. 322–326.

padding byte – one supplied by the compiler in the footprint of an object of class type, typically to satisfy alignment requirements of individual data members or for the object as a whole. Each padding byte is of indeterminate value and, like a vtable pointer or virtual base pointer, does not contribute to the value representation of the object. Generalized PODs '11 (475)

parameter – the (formal) name declared within the defining declaration of an entity, such as a function or template, used locally within its definition to refer to the corresponding (actual) argument supplied when called or instantiated, respectively.

parameter declaration – The declaration of a parameter to a function within a function's parameter list. Variadic Templates (888)

parameter list – a sequence of formal parameter declarations, such as a function parameter list or a template parameter list.

parameter pack – a function parameter pack or a template parameter pack. Variable Templates (159), Variadic Templates (873), `constexpr` Functions '14 (964)

partial application – transforming an N-ary function into another of smaller arity, specifically by binding one or more parameters of the original function to fixed arguments, as commonly occurs in C++ when trailing parameters of a given function are declared to have default arguments or, more generally, when a higher-order function, e.g., $h(F, v)$, is applied to some function, e.g., $f(x, y, z)$, to yield another function, e.g., $g(x, y) = h(f(x, y, z), k)$, such that, for all a and b, $g(a, b) = f(a, b, k)$. Lambdas (597)

partial class-template specialization – the partial specialization of a class template. `constexpr` Functions '14 (963)