C++ Module TS Issues List
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Active Issues

Question
Should there be a restriction on local statics in exported function template?

Proposed Resolution
The current design purposefully does not place any restriction. It even has an explicit note to that effect for inline functions. Maybe that note should be clarified that it also applies to function templates.

Question
Consider

```cpp
// interface unit of M
module M;
export namespace N {
    int f(int);
}
namespace N {
    int f(int = 5);
}

// 1.cxx, not part of M
import M;
int main() { return N::f(); } // OK?
```

Proposed Resolution
Only default arguments in exported declarations are effectively exported, i.e. visible to importing translation units. This issue is resolved by the new wording for issue #4. Add a note to the specification.

[9] Point of definition of implicitly defined special member functions [Roger Orr, 11/7/2016]
Question
What is the point of definition of delayed implicitly defined special member functions?

Proposed Resolution
When the definition of an implicitly defined special member function is needed, the context of the definition shall be right after the last exported declaration from the owning module’s interface unit.
[10] Annotation of module declaration in module interface unit [Nathan Sidwell, 2/2/2017]
See discussion on the ‘modules’ reflector with title ‘modules’. Request:

*It would be nice if the module declaration was decorated in some unique way to denote the interface unit.*

Proposed Resolution
From specification perspective, there is no ambiguity about which translation unit is a module interface unit. It might however be convenient for some to see a redundant annotation in the source code indicating that a source file is indeed a module interface unit. See proposal P0273R1, proposal P0584R0 titled “Module Interface and Preamble”, and proposal P0629 titled “Distinguishing Module Interface from Module Implementation”.

See discussion titled ‘modules’ on the ‘modules’ reflector.

Question
In the purview of a module, can a redefinition export an entity that wasn’t previously declared as exported?

Proposed Resolution
No. This was expressly forbidden, and that restriction is encoded via the forbidden change of linkage (from module linkage to external linkage). Add a note in the specification to illustrate this.

[12] Exported partial specialization [Nathan Sidwell, 1/30/2017]
See the discussion ‘export and templates’ on the ‘modules’ reflector.

Question
Given an exported class template declaration X, is it possible to declare two non-exported partial specialization of X in two modules?

Proposed Resolution
Yes; however, the partial specialization shall depend on non-exported types or templates.

This issue results from a EWG straw poll at the Spring 2017 Kona meeting.

Question
Provide a notation for expressing “module partitions”, see proposal P0273R1 for background.

**Closed Issues**

[1] export import M; [Richard Smith, 9/7/2016]
Remove from grammar. Or ban it through semantics prose. Same thing with export { import M; }
Resolution
See P0500R0 adopted at the Fall 2016 Issaquah meeting.

[2] import M; at interface level [Richard Smith, 9/7/2016]
Ban it from interface units.

Resolution
See P0500R0 adopted at the Fall 2016 Issaquah meeting.

[3] export const int n = 5; [Richard Smith, 9/8/2016]
Clarify that this is allowed.

Resolution
See P0500R0 adopted at the Fall 2016 Issaquah meeting.

Problem:
I was reading N4610 and have a question:

```typescript
module M;
export namespace N {
    struct A {};
}
namespace N {
    struct B {};
}
```

7.7.1/4 says that all members of `namespace-body` are exported, meaning N::A.

```typescript
import M;
```

7.7.2/1 says that import declaration adds the `namespace partitions` with external linkage from M to the current TU.
Namespace partition N from M contains both N::A and N::B.

So is N::B visible and can be used in the second TU or not?

Resolution
See P0500R0 adopted at the Fall 2016 Issaquah meeting.

Question
Are there any restrictions on the linkage of the entities that can be referenced from an exported template definition?

Resolution
For function templates, by design, there is no restriction on the linkage of entities that can be referenced from a definition. Note, this is the same restriction as for inline functions.

[8] Point of instantiation across translation units and name lookup [John Spicer, 11/8/2016]
See paper P0582R0 titled "Modules: Contexts of Template Instantiations and Name Lookup", adopted at the Spring 2017 Kona meeting.