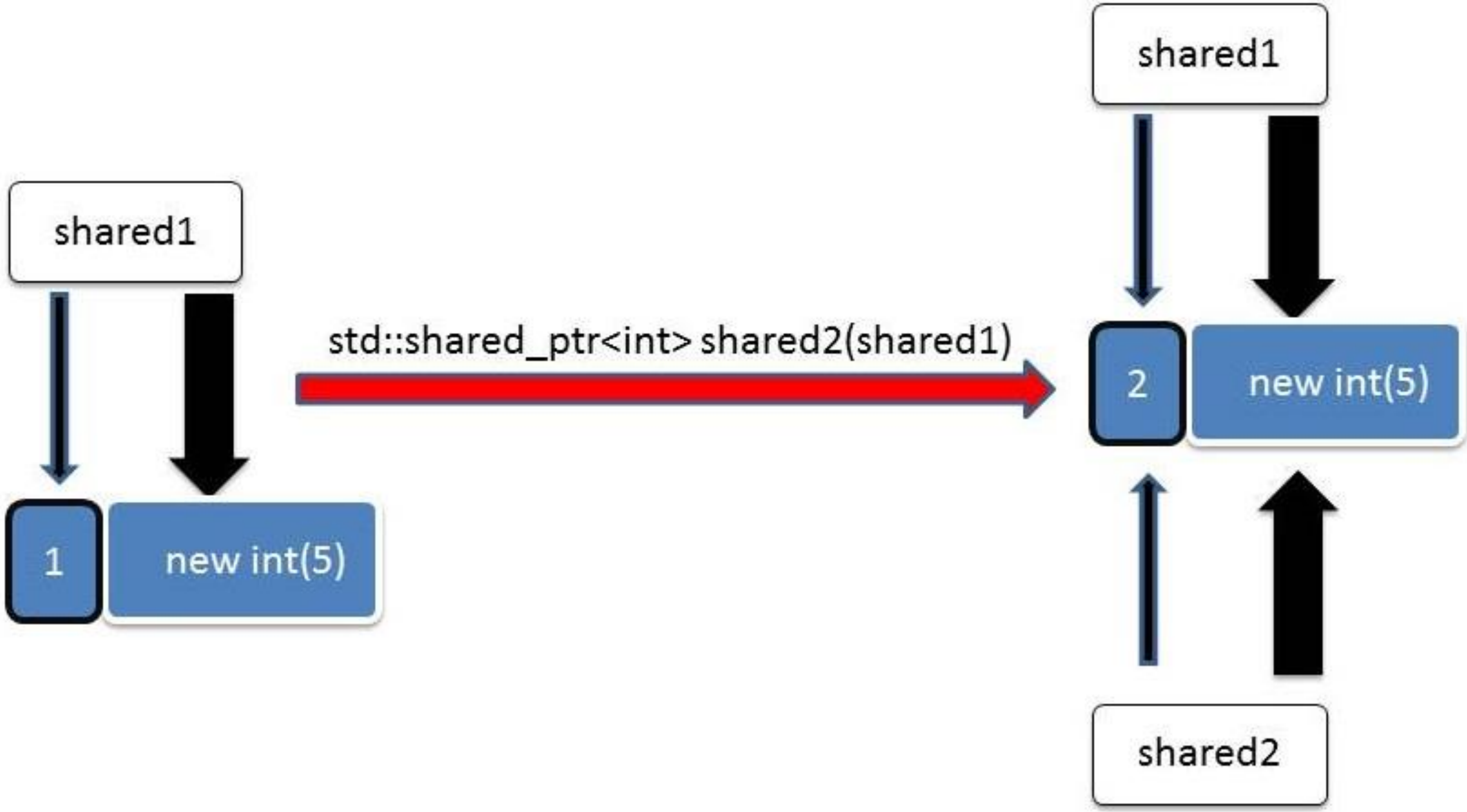
std::shared_ptr



`std::shared_ptr`

`std::shared_ptr` shares a resource and releases it.

- `std::shared_ptr`
  - has a reference to the resource and the reference counter.
  - is C++'s answer to garbage collection.
  - has management overhead.
  - deterministically releases the resource.
  - can be configured with a deleter:

    `shared_ptr<int> shPtr(new int, Del());.`

  - Is half thread safe:
    - The control block is thread safe.
    - The underlying resource is not thread safe.

std::shared_ptr

Member Function	Description
`sha.unique()`	Checks, if the `std:shared_ptr` is the only owner of the resource.
`sha.use_count()`	Returns the value of the reference counter.
`sha.get()`	Returns a pointer to the resource.
`sha.reset(ptr)`	▪ Replaces the resource. ▪ Eventually destructs the resource.
`sha.swap(sha2)`	Swaps the `std:shared_ptr.`
`sha.get_deleter()`	Returns the delete function.
`std::make_shared(...)`	Generates the resource and manages it.

sharedPtr.cpp
sharedPtrDeleter.cpp