

# Problems to Real-time

	Real-time	Non-real-time
CPU work	✓	✓
Context switches	✓ (avoid)	✓
Memory access	✓ (non-paged)	✓
System calls	✗	✓
Allocations	✗	✓
Deallocations	✗	✓
Exceptions	✗	✓
Priority Inversion	✗	✓

```
template <class _Tp>
_LIBCPP_AVAILABILITY_ATOMIC_SHARED_PTR
void
atomic_store(shared_ptr<_Tp>* __p, shared_ptr<_Tp> __r)
{
    __sp_mut& __m = __get_sp_mut(__p);
    __m.lock();
    __p->swap(__r);
    __m.unlock();
}
```