on the actual object so that other calls to that object cannot change the object while locked.

![Diagram of Proxy pattern](image)

**Figure 4.13. UML for Proxy pattern**

The Proxy pattern has three main components: the **Subject**, the **RealSubject**, and the **Proxy**. The **Subject** defines the common interface for the real subject and proxy. The **RealSubject** is the actual object that the proxy represents. The proxy maintains the reference to the real subject and acts as the access point for the real subject.

The most common usage for a proxy is when you have two incompatible systems or two separate domains and wish to allow these systems or domains to have access points to each other. Another common use for a proxy is to control access to an object to programs outside its domain or address space. Inside the proxy you can manage the access to external domains to any object you desire. The proxy can initialize the actual object and check the security level of the calling program. It can manage multiple instances of the objects or handle the unit of work for the object from outside access points.