

C# Scripting in Unity: The Observer Pattern

HANDLING EVENTS



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Event

a: something that happens: OCCURRENCE

b: a noteworthy happening

~ Merriam-Webster



An event is something that happens within the context of one object to be communicated to other objects within a program.



The Demo Project



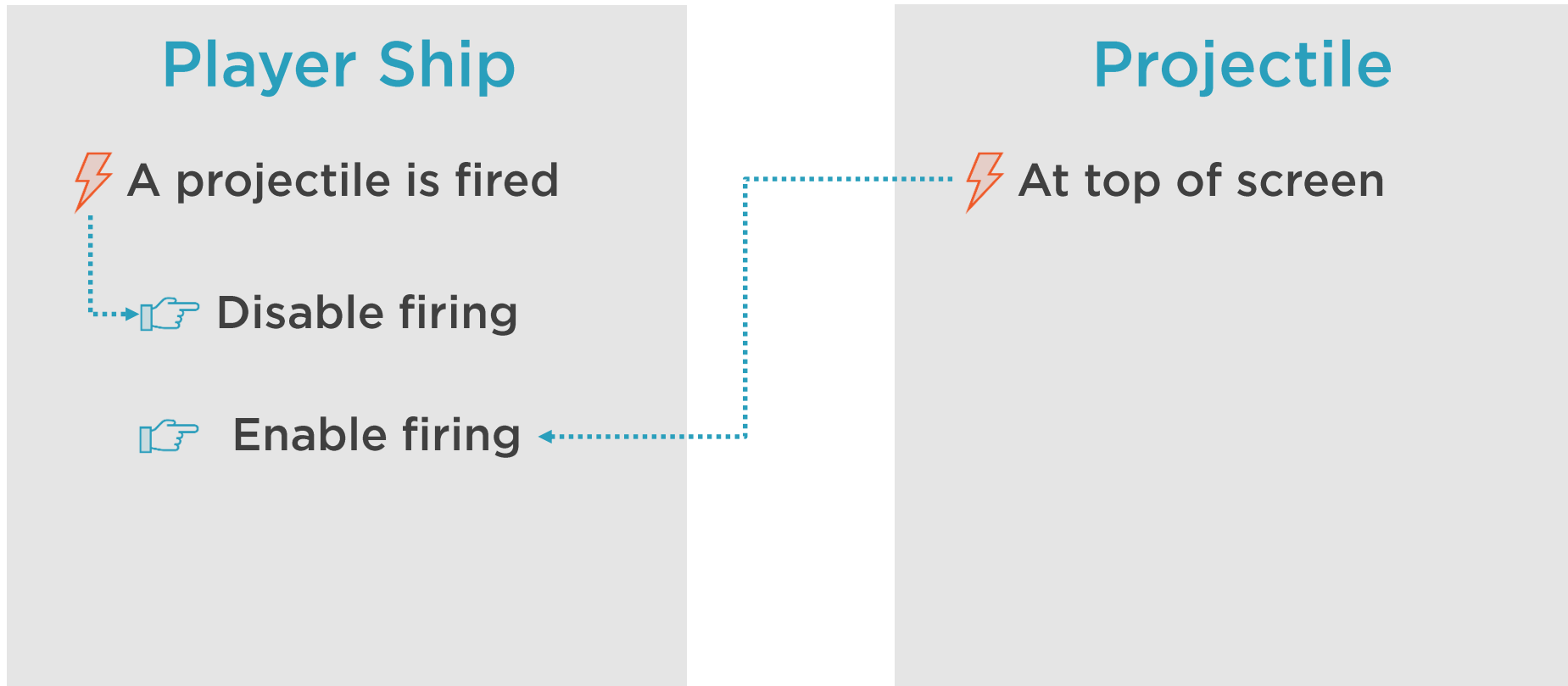
ObserverDemo.zip



Providing Context



Controlling the Rate of Fire



Coming Up



Direct Object Calls



Tight Coupling



Tight Coupling



Tight Coupling – The Costs



Difficult to maintain & debug



Not easily scalable



Impedes collaboration



Complicates unit testing



Coming Up



Delegates and Events



Delegation is the act of empowering an object or person to act on behalf of another.



Delegate

In C# a delegate is a type designed to hold a reference to a method in a delegate object.



Loose Coupling



C# Events

Events enable a class or object to notify other classes or objects when something of interest occurs. ~ Microsoft



All events have an
underlying delegate type.



Module Summary



Responding to events

Direct object calls

- Expensive lookup operations
- Tight-coupling

C# Delegates and events

- Loose-coupling
- More flexible
- Easier to debug and maintain

Coming Up

