

```
class ZSet:
    class Phaser:
        def add_waiter(op):
            if op.is_read():
                self.readers.push(op)
            elif op.is_add():
                self.adders.push(op)
            # ...

        def signal(prev_mode):
            if prev_mode == READ:
                self.adders.signal_all()
            elif prev_mode == ADD:
                self.readers.signal_all()
            # ...
```