

# Mutex

```
public function acquire(string $name, int $timeout = 0, int $expire = 30): bool
{
    if ($this->acquireLock($name, $timeout, $expire)) {
        $this->locks[] = $name;
        return true;
    }
    return false;
}

protected function acquireLock(string $name, int $timeout, int $expire): bool
{
    $value = md5( str: $name . random_int(0, PHP_INT_MAX));
    $waitTime = 0;
    $arguments = [$name, $value, 'NX', 'PX', $expire * 1000];
    while (!$this->redis->rawCommand( command: 'SET', ...$arguments)) {
        $waitTime++;
        if ($waitTime > $timeout) {
            return false;
        }
        sleep( seconds: 1);
    }
    $this->lockValues[$name] = $value;
    return true;
}
```

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```
public function release(string $name): bool
{
    if ($this->releaseLock($name)) {
        $index = array_search($name, $this->locks, strict: true);
        if ($index !== false) {
            unset($this->locks[$index]);
        }
        return true;
    }
    return false;
}

protected function releaseLock(string $name): bool
{
    $releaseScript = '
        if redis.call("GET",KEYS[1])==ARGV[1] then
            return redis.call("DEL",KEYS[1])
        else
            return 0
        end
    ';
    if (!isset($this->lockValues[$name])) {
        return false;
    }
    $arguments = [$releaseScript, 1, $name, $this->lockValues[$name]];
    if (!$this->redis->rawCommand(command: 'EVAL', ...$arguments)) {
        return false;
    }
    unset($this->lockValues[$name]);

    return true;
}
```