

ZeroConf and OSC

A low-angle photograph of the UCSB Campanile tower, a tall, light-colored stone structure with a belfry at the top. The tower is set against a clear blue sky with a bright sun on the left, creating a lens flare effect. Dark green trees are visible in the foreground and to the right of the tower.

(Or things to do with OSC when you
are bored in Santa Barbara)

What is ZeroConf?

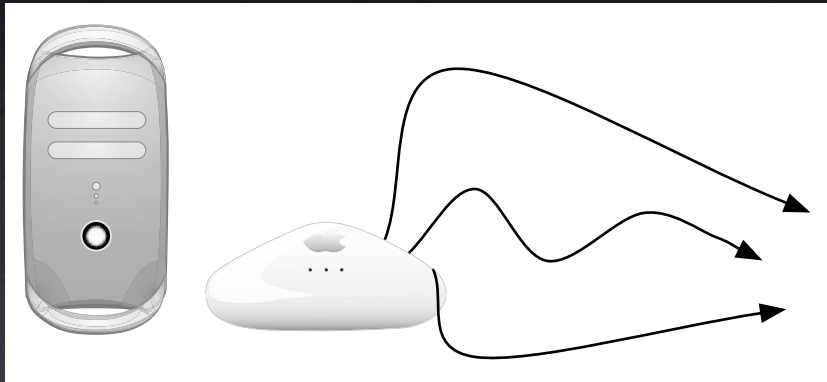
OSC and Rendezvous

```
Untitled 4
OSCService.knownServices;

[ OSCService(SuperCollider, 10.0.2.1, 57110), OSCService(Occam, 10.0.2.1, 57117) ]

OSCService.knownServices.at(0).netAddr.sendMsg("/s_new", "ping", 1002, 0, 0, \freq, 120);
```

Use Scenario



Publishing

- Type — `_osc._udp.` (or `_osc._tcp.`)
- Name — SuperCollider
- Port — 57110
- Domain — local.

Rendezvous Code

```
CFStringRef serviceType = 0;
switch (protocol)
{
    case kSCRendezvous_UDP:
        serviceType = CFSTR("_osc._udp.");
        break;
    case kSCRendezvous_TCP:
        serviceType = CFSTR("_osc._tcp.");
        break;
}

CFNetServiceRef netServiceRef =
    CFNetServiceCreate(NULL, // use default allocator
        CFSTR(""),          // use default domain
        serviceType,
        CFSTR("SuperCollider"),
        portNum);

CFNetServiceRegister(netServiceRef, NULL); // don't care about the error
```


Discovering

- request services of type `_osc._udp`.
- as needed, resolve the service
- once necessary information is received, stop resolving the service (but remember the info)

Demo — SC & Occam



URLs

- <http://www.zeroconf.org/>
- <http://www.ietf.org/html.charters/zeroconf-charter.html>
- <http://developer.apple.com/macosx/rendezvous/index.html>
- <http://www.porchdogsoft.com/products/howl/>
- <http://www.dns-sd.org/>