Casey Stoessl
EECS 325 – Project 2
Dec 5th, 2013

To determine whether your TTL is too small or large, you must examine the type and code in the ICMP header.
If type=3 and code=3, it means port is unreachable, but you arrived at the destination. In this case, the TTL is too large, and you should decrease it.
If type=11 and code=0, it means the TTL expired, and you never reached the destination. TTL is too small and should be increased.

To match ICMP responses with the probes we are sending out, we have to look at the part of the response that includes the IP header and the 8 bytes of the original datagram's data. In reality, the response carries more than 8 bytes, and you can use this data to match the destination port number that you originally used for your probe.

Some of the reasons for not getting an answer involve the use of UDP. Since UDP is best effort, our probes might be dropped at any time. In addition, some servers disable ICMP responses for incoming probes (often for security reasons), so we will never receive a response.

The sites that I accessed were google.com, linkedin.com, reddit.com, youtube.com, conduit.com, t-online.de, xhamster.com, cnet.com, sohu.com, mpnrs.com, nytimes.com, indeed.com.
Sites that I had in my original list that did not work were kickass.to, empowernetwork.com, usps.com, xunlei.com, scoop.it, dreamstime.com, golsearch.com, gazzetta.it.

The charted RTT vs Hop Count measurements for the 12 sites is seen below. The correlation coefficient and equation are calculated and shown on the chart.