

TULIP Landmark finding

TULIP landmarks are servers at well known locations (lat/longs), that can ping a requested target (typically at an unknown location) to use geolocation to find the location of the target. There are several sources of potential TULIP landmarks. These include [PingER](#), [perfSONAR](#) and [PlanetLabs](#). The current list of TULIP landmarks can be found by looking at the [list](#).

If you need to verify the location (latitude/longitude) of a landmark then see [TULIP Landmark finding the latitude longitude manually](#).

perfSONAR

Use the perfSONAR list of traceroute/ping servers. It is at: <http://132.160.6.186/toolkit/gui/perfAdmin/directory.cgi#PING>. This provide a list of IP names /address that host traceroute/ping servers. Then add to the perfSONAR toolkit host name (e.g. 192.41.236.35 or 2001:e10:3c00:3:5054:ff:fe12:ee41) the following

```
<perfsonar-toolkit-host>/toolkit/gui/reverse_traceroute.cgi?target=<target>&function=ping
```

to create a URL: http://192.41.236.35/toolkit/gui/reverse_traceroute.cgi?target=www.upenn.edu&function=ping. The output should appear as below:

The screenshot shows a web interface for a perfSONAR toolkit. On the left is a logo for the Stanford Linear Accelerator Center. The main content area displays a ping trace from 192.41.236.35 to 192.122.184.74 (www.upenn.edu) for 134.79.222.201. It includes a CGI script maintainer link to [Les Correll, SLAC](#), a note about version 5.3, 05/20/2011, and a link to [Download perl source code](#). A text box says "To perform a traceroute from 192.41.236.35, enter the desired target [host domain](#) (e.g. [www.yahoo.com](#)) or [Internet address](#) (e.g. [137.138.28.228](#)) in the box below: Enter target name or address: then push 'Enter' key". Below this is a "Lookup" section with links for [host name](#), [mail domain](#), [domain name](#), [Locating a Host](#), [visual traceroute](#), and [contacting someone](#). The bottom part shows the actual ping command output: "Executing exec(ping, -c 5 -s 56, 192.122.184.74)" followed by a list of ICMP sequence numbers (seq 1 to seq 5) and their corresponding destinations as "Destination Host Unreachable". The final summary is "--- 192.122.184.74 ping statistics --- 5 packets transmitted, 0 received, +5 errors, 100% packet loss, time 400ms".

One can also simply go to the web site (e.g. <http://209.129.246.135/>, it will direct to <http://209.129.246.135/toolkit/>) and view the information for the node. Unfortunately some nodes do not respond, for others although Latitude, Longitude is in the table the value is not entered. Some work, see below for an example:

The screenshot shows a web interface for a pS-Performance Node. The left sidebar has a "User Tools" section with links for Local Performance Services, Global Performance Services, Java OWAMP Client, Reverse Traceroute, Reverse Ping, and Reverse Tracepath. The main content area is titled "pS-Performance Node For REANNZ In Wellington , NZ". It shows "Host Information" with fields: Organization Name (REANNZ), City, State, Country (Wellington, , NZ), Zip Code (empty), Latitude,Longitude (-41.28131,174.77575), Administrator Name (REANNZ NOC), and Administrator Email (noc@reannz.co.nz). Below this is a section titled "Communities This Host Participates In" with the entry "REANNZ pS-NPToolkit-3.3".

One could search for the string (for example <td>Latitude,Longitude</td><td>-41.28131,174.77575</td>) and extract the lat/long. A script could be written to automate this using wget to get the web pages etc.

PingER

Most [PingER monitoring sites](#) have a traceroute/ping server. This is the same server CGI script (with a different URL) as the perfSONAR server CGI script so the output is the same. The URL for the PingER ping server is

```
<pinger-host>/cgi-bin/traceroute.pl?target=<target>.edu&function=ping
```

This creates a URL of the form <http://pinger.arn.dz/cgi-bin/traceroute.pl?target=www.slac.stanford.edu&function=ping>

PlanetLab

We use the Planetlab [scriptroute](#) service via the [TULIP reflector](#).

Here is a list of PlanetLab Sites with Lat Lons: <https://www.planet-lab.org/db/pub/sites.php>