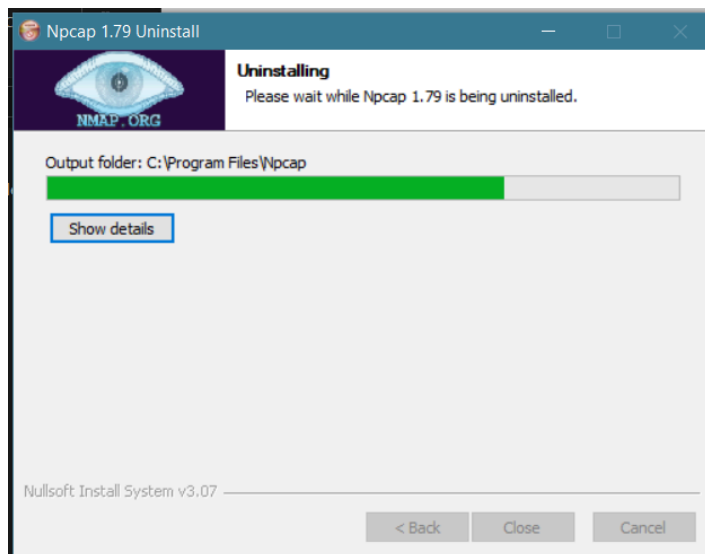
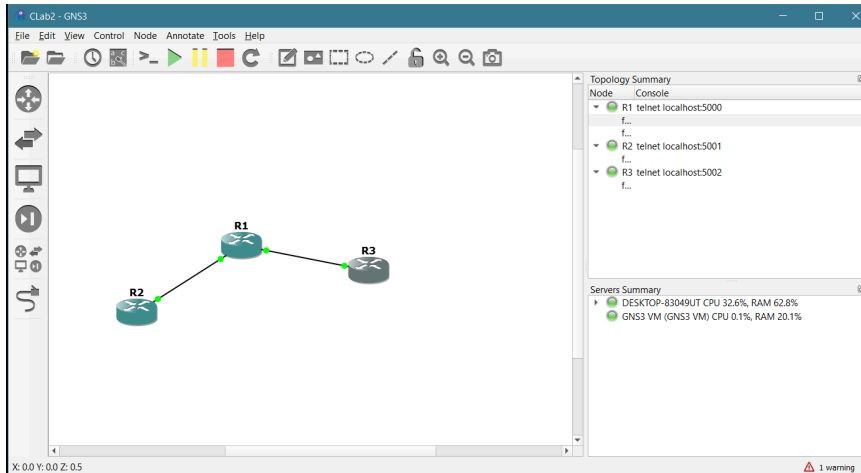


gns3_server.ini file breaks and has to be fixed before I can start.



The solution was to uninstall and reinstall GNS3. I assume this could be for a lot of reasons but it could be some application conflicts or incorrect file paths. Regardless it's resolved at this point.



I created the interface configuration for three routers. The topology doesn't give a detailed description however the FastEthernet links are in the right configuration.

```
R1(config)#interface f2/0
R1(config-if)#ip address 192.168.2.1 255.255.255.252
R1(config-if)#no shutdown
R1(config-if)#
*Sep 10 22:23:03.843: %LINK-3-UPDOWN: Interface FastEthernet2/0, changed state to up
*Sep 10 22:23:04.843: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet2/0, changed state to up
R1(config-if)#exit
R1(config)#interface f2/1
R1(config-if)#ip address 192.168.1.3 255.255.255.252
Bad mask /30 for address 192.168.1.3
R1(config-if)#ip address 192.168.3.1 255.255.255.252
R1(config-if)#no shutdown
R1(config-if)#
*Sep 10 22:25:05.595: %LINK-3-UPDOWN: Interface FastEthernet2/1, changed state to up
*Sep 10 22:25:06.595: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet2/1, changed state to up
R1(config-if)#exit
R1(config)#exit
R1#
*Sep 10 22:27:00.663: %SYS-5-CONFIG_I: Configured from console by console
R1#
```

I opened the console and configured R1's f2/0 and f2/1 and changed their state to up.
(The topology configuration in my setup has interface f2/0 linked to R2 and f2/1 linked to R3.
Like the last time FastEthernet1/0 doesn't exist in my configuration.)

```
R1#show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2
       i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
       ia - IS-IS inter area, * - candidate default, U - per-user static route
       o - ODR, P - periodic downloaded static route, H - NHRP, l - LISP
       + - replicated route, % - next hop override

Gateway of last resort is not set

    192.168.2.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.2.0/30 is directly connected, FastEthernet2/0
L       192.168.2.1/32 is directly connected, FastEthernet2/0
    192.168.3.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.3.0/30 is directly connected, FastEthernet2/1
L       192.168.3.1/32 is directly connected, FastEthernet2/1
R1#
```

This is the IP route for R1. It can only view its neighboring interfaces based on the connections.

```

R2#configure
Configuring from terminal, memory, or network [terminal]?
Enter configuration commands, one per line. End with CNTL/Z.
R2(config)#interface f2/0
R2(config-if)#ip address 192.168.2.1 255.255.255.252
R2(config-if)#no shutdown
R2(config-if)#
*Sep 10 22:37:37.099: %LINK-3-UPDOWN: Interface FastEthernet2/0, changed state to up
*Sep 10 22:37:38.099: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet2/0, changed state to up
R2(config-if)#exit
R2(config)#exit
R2#
*Sep 10 22:37:44.723: %SYS-5-CONFIG_I: Configured from console by console
R2#show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2
I - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
ia - IS-IS inter area, * - candidate default, U - per-user static route
o - ODR, P - periodic downloaded static route, H - NHRP, I - IGRP
+ - replicated route, % - next hop override

Gateway of last resort is not set

    192.168.2.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.2.0/30 is directly connected, FastEthernet2/0
L       192.168.2.1/32 is directly connected, FastEthernet2/0
R2#

```

I then configured the interface for R2 f2/0 using the same subnet as R1 f2/0. We make sure the IP routes are correct which they are.

```

R3#configure
Configuring from terminal, memory, or network [terminal]?
Enter configuration commands, one per line. End with CNTL/Z.
R3(config)#interface f2/1
R3(config-if)#ip address 192.168.3.1 255.255.255.252
R3(config-if)#no shutdown
R3(config-if)#
*Sep 10 22:41:52.875: %LINK-3-UPDOWN: Interface FastEthernet2/1, changed state to up
*Sep 10 22:41:53.875: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet2/1, changed state to up
R3(config-if)#exit
R3(config)#exit
R3#
*Sep 10 22:42:04.043: %SYS-5-CONFIG_I: Configured from console by console
R3#show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2
I - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
ia - IS-IS inter area, * - candidate default, U - per-user static route
o - ODR, P - periodic downloaded static route, H - NHRP, I - IGRP
+ - replicated route, % - next hop override

Gateway of last resort is not set

    192.168.3.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.3.0/30 is directly connected, FastEthernet2/1
L       192.168.3.1/32 is directly connected, FastEthernet2/1
R3#

```

I then configured the interface for R3 f2/1 using the same subnet as R1 f2/1. We make sure the IP routes are correct which they are.

```

R1#ping 192.168.2.1
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.2.1, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/2/4 ms
R1#ping 192.168.3.1
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.3.1, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/1/4 ms

```

```

R2#ping 192.168.2.1
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.2.1, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/6/12 ms
R2#ping 192.168.3.1
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.3.1, timeout is 2 seconds:
.....
Success rate is 0 percent (0/5)

```

```

R3#ping 192.168.3.1
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.3.1, timeout is 2 seconds:
!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 4/6/8 ms
R3#ping 192.168.2.1
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.2.1, timeout is 2 seconds:
.....
Success rate is 0 percent (0/5)

```

Tests for connectivity are successful between R1 => R2, R1 => R3, R3 => R1, R2 => R1. Not R3 => R2 because they have no routing.

```

R1(config)#router rip
R1(config-router)#version 2
R1(config-router)#network 192.168.2.0
R1(config-router)#network 192.168.3.0
R1(config-router)#exit
R1(config)#exit
R1#show ip rou
*Sep 10 22:51:24.083: %SYS-5-CONFIG_I: Configured from console by console
R1#show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2
i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
ia - IS-IS inter area, * - candidate default, U - per-user static route
o - ODR, P - periodic downloaded static route, H - NHRP, l - LISP
+ - replicated route, % - next hop override

Gateway of last resort is not set

    192.168.2.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.2.0/30 is directly connected, FastEthernet2/0
L       192.168.2.1/32 is directly connected, FastEthernet2/0
    192.168.3.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.3.0/30 is directly connected, FastEthernet2/1
L       192.168.3.1/32 is directly connected, FastEthernet2/1
R1#

```

```

R2#configure
Configuring from terminal, memory, or network [terminal]?
Enter configuration commands, one per line. End with CNTL/Z.
R2(config)#router rip
R2(config-router)#version 2
R2(config-router)#network 192.168.2.0
R2(config-router)#network 192.168.3.0
R2(config-router)#exit
R2(config)#exit
R2#s
*Sep 10 22:52:42.671: %SYS-5-CONFIG_I: Configured from console by console
R2#show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2
i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
ia - IS-IS inter area, * - candidate default, U - per-user static route
o - ODR, P - periodic downloaded static route, H - NHRP, l - LISP
+ - replicated route, % - next hop override

Gateway of last resort is not set

    192.168.2.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.2.0/30 is directly connected, FastEthernet2/0
L       192.168.2.1/32 is directly connected, FastEthernet2/0
R2#

```

```

R3(config)#router rip
R3(config-router)#version 2
R3(config-router)#network 192.168.2.0
R3(config-router)#network 192.168.3.0
R3(config-router)#no auto-summary
R3(config-router)#exit
R3(config)#exit
R3#
*Sep 10 23:49:39.919: %SYS-5-CONFIG_I: Configured from console by console
R3#running-config startup-config
^
% Invalid input detected at '^' marker.

R3#show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
E1 - OSPF external type 1, E2 - OSPF external type 2
i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS level-2
ia - IS-IS inter area, * - candidate default, U - per-user static route
o - ODR, P - periodic downloaded static route, H - NHRP, l - LISP
+ - replicated route, % - next hop override

Gateway of last resort is not set

    192.168.3.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.3.0/30 is directly connected, FastEthernet2/1
L       192.168.3.1/32 is directly connected, FastEthernet2/1

```

After making attempts at setting up RIP for this configuration for an hour I could not successfully set it up. I've been looking at multiple GNS3 forums and getting nowhere. Maybe it's an issue with the IP routes but I find that hard to believe because all the pings work between networks. There's no reason why RIP shouldn't be working but it isn't.