CONRAIL ONONDAGA CUTOFF

REMOTE OPERATING PROCEDURES

1.0 Introduction

In order to have a safe and successful remote operating session, several key tools are required. You will probably want to use two separate devices:

- Train control: Smartphone for Throttle (WiThrottle on iPhone/iPad or EngineDriver on Android)
- Dispatch Screen viewing: TeamViewer www.teamviewer.com
- Radio communications: Skype www.skype.com
- Video feed: Zoom Meetings www.zoom.com

We recommend using the smartphone ONLY for your throttle, and a tablet or laptop for dispatch and video, and optionally, a 3rd device for Skype.
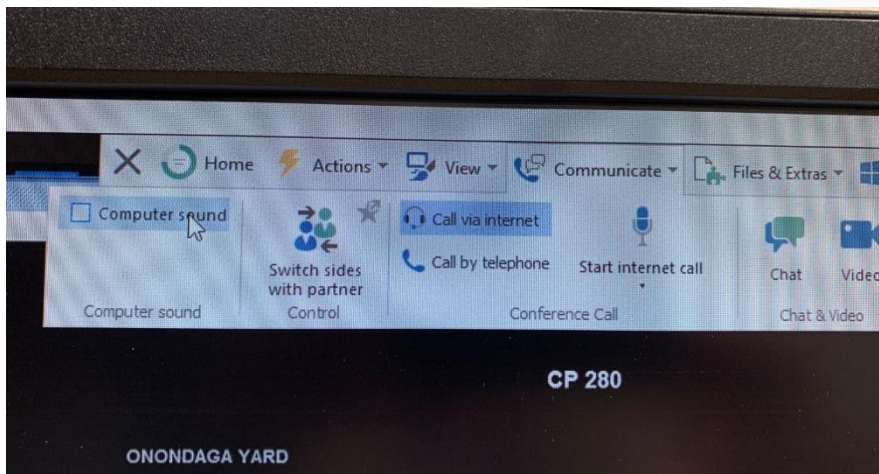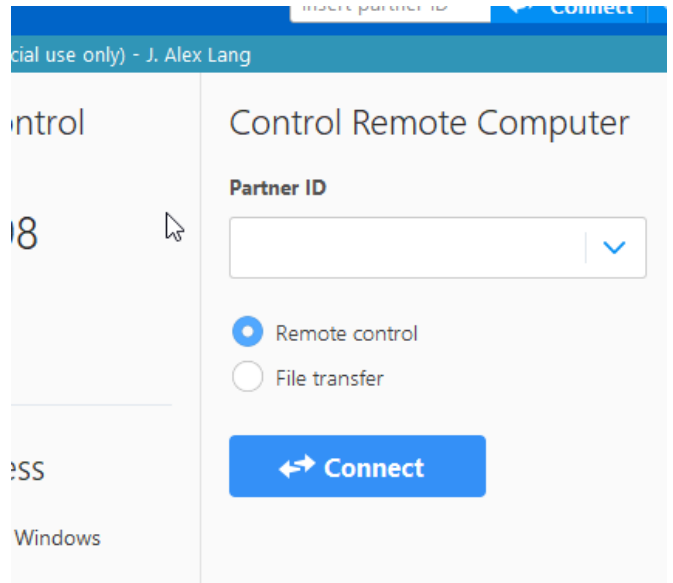
2.0 Software Use

TeamViewer (used to view the dispatcher screen)

The host will send you an ID number which you put in, then click on "Remote Control", enter the Partner ID (the number the host sent), and the Connect button:

On the, next screen put in the password (case sensitive) that the host sent. You may need to tinker with screen resolution so you can see the entire screen without scrolling.

If you are connecting to Skype for the FRS radio feed (described below) on the same device you are using for TeamViewer, you will need to mute the sound feed in TeamViewer to prevent the radio echo. Under the "Communicate" menu at the top of the screen, uncheck the "Computer sound" box (see below)

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Skype (used to talk via the FRS Radio System)

Open the Skype program. Select "No video". Answer call when host reaches out. Use mouse to mute/unmute yourself (microphone icon on skype). Keep yourself muted at all times except when you need to talk. Hint: due to lag, expect the first word you say to be cutoff. So start transmission with filler, like "Conrail". When giving car counts, say train name first, then count. "COSE, 5 cars" so there is no chance the important number gets cut off.

Zoom (used to watch a camera on the layout)

You will get an email invite. Click on link to open Zoom. Join Zoom WITHOUT video. In next box when asked about audio, close the box, and when it questions you about audio, just continue so as not to use audio in Zoom. If by chance more than one video feed shows, click on the layout feed and in upper right corner click on the dots and select "Pin"

WiThrottle (iPhone) or EngineDriver (Android or Windows phone)

Step 1. Get the App and put it on a Smartphone.

A mobile device is required for remote operations. Download WiThrottle Lite (freeware) or EngineDriver (freeware) as applicable for your device from the App Store. (NCE, Digitrax etc manufacturer handheld throttles will not work for remote operations.)   Since WiThrottle shuts down when you use another phone function (like text message), we suggest you turn message notifications off. Ideally you may have an older phone laying around that you can load WiThrottle on and continue use your primary phone for messaging.

Step 2. Obtain IP Address from Layout PC

Make sure your phone (throttle) is linked to your own home wifi (in settings). Then, we'll need the IP address for 'yourcomputer'.no-ip.org. (You will replace 'yourcomputer' with your network name.) As the host has a residential internet connection, the IP address can change. Unfortunately, Wi-Throttle can't use DNS names like yourcomputer.no-ip.org so we need to look up the IP address, and it will change for each and every session.

The host will run a `cmd` prompt to get your good-ole-fashioned black DOS window:

- On Windows 7, he clicks the Start menu, and the Run, and then type `cmd`
- On Windows 10, simply type `cmd` directly into the "Type here to search" bar at the bottom left

He will press Enter. Once the DOS window pops up, he types the following command:

- `nslookup yourcomputer.no-ip.org`

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The IP address he is looking for will be here:

Note that the first few lines of response may look different on different machines.

The IP address in this example is:

`xx.xxx.xxx.xx`

Command Prompt

```
Microsoft Windows [Version 10.0.18363.778]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\WINDOWS\system32>nslookup          .no-ip.org
Server:  dns.google
Address:  8.8.8.8

Non-authoritative answer:
Name:           .no-ip.org
Address:

C:\WINDOWS\system32>
```

Step 3. Fire Up Wi-Throttle

On the Wi-Throttle app on your iPhone or iPad, choose the *Settings* icon followed by *Configure…* which is found under SET SERVER MANUALLY. If you are running a Wi-Throttle Server on your home network you may wish to stop it first, otherwise Wi-Throttle will connect to that by default.

On the next screen, type in the IP address found in Step 1. The Port is 12090 unless the host tells you otherwise. Then press *CONNECT*.

At this point, your Wi-Throttle is operating as though you were standing right next to the layout. Select Roster and skim the list of locomotives as a way to confirm that you're connected. From here on out, follow instructions from the dispatcher and yardmaster and operate safely. Enjoy!