



# TETRA Trunk Tracker – Features and Usage

by thewraith2008 (6<sup>th</sup> March 2019)

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## Menu – Dual Mode

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Switches TETRA Trunk Tracker from Single to Dual mode. (Requires restart)

**Single mode:** Requires 1 instance of SDR# and 1 Dongle

**Dual mode:** Requires 2 instances of SDR# and 2 Dongles

The Single mode only real difference is its limited priority function and that CVS logging restricts call playback to only playing calls that appear on the CC (main carrier).  
If your network has only 1 carrier then Single mode is essentially the same as Dual mode.

### Priorities limitation in the Single mode

Priorities will only work fully in single mode for networks where there is only one carrier.

Otherwise priorities will function as follows:

When a call is on the CC (carrier), a priority will function as expected.

When a call is on the VC (carrier), where VC is not the same as CC (main carrier), then no priorities can occur.

For priorities to work fully you need to be listening to CC (main carrier) all the time, As soon as you move to VC (where carrier is not same as CC) priorities will no longer function.

Switching modes will cause a call halt state and prompt the user that a TTT restart is required. If a call is currently in progress it will be terminated.

### Full Duplex limitation (as of v1.0.13)

Both parties in a duplex private call can be heard only in TTT 'Dual' mode and only if the required PDUs are seen at time of call.

When a private full duplex call is seen and all the required PDUs are seen, SDR# VC switches to one timeslot on a carrier and SDR# CC will switch to the another timeslot on a carrier.

### NOTE:

I have seen duplex calls where each ISSI appears either on same carrier but different timeslots and where each ISSI appears on different carriers (with in LA) on a timeslot.

A duplex call can also have a ISSI on a different LA. Relative to the one you are listening too.

This feature can be disabled with '-dd' on the command line.

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## Menu - G/SSI Editor (F4)

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Displays a snapshot\* of all GSSIs seen with associated SSI.

\* Snapshot is of GSSI list at time editor was opened. If new items are added after it was opened, they will not be shown. Close and re-open to refresh.

This editor has an idle time-out of 5 minutes before it closes.  
The reason for this is so data does not become too outdated.

From here you can change: (**Only existing G/SSIs in list**)

- GSSI Label, Priority and lockout skip state
- SSI Label

Select MCC(Country) MNC(Network) from drop down list to display all GSSIs for that Country/Network.  
Current Country/Network is loaded by default when tuned to CC.

When GSSI is checked, calls will be allowed.  
When GSSI is Un-checked, calls will be ignored.

This editor can be accessed a few ways.

1. Directly, either via by menu or F4
2. On a active call, click 'Group' field in 'Call Details' panel
3. On a active call, click 'TX SSI' field in 'Call Details' panel
4. Click on one of the entries in current call list. On right of 'TX SSI' in 'Call Details'
5. Double clicking some items in call event log. Some Group: and SSI: entries (see below)

#2-5 will open dialog window if not already opened.

#2. Will use current call GSSI and highlight item, show label (if any), priority and lockout skip state.

#3,4 Will use current call GSSI and SSI and will:

- highlight item, show GSSI label (if any), priority and lockout skip state.
- highlight item, show SSI label (if any).

#5 Works like #2,3,4 when double clicking item in call event log window.

- Entries with "Group: xxxxxx".
- Entries with "TX SSI: xxxxxx"  
(Assumes GSSI from previous 'Group' event entry to be related - Used to search for SSI)
- Entries with "Calling SSI: xxxxxx"
- Entries with "D-TX-Ceased" or "D-TX-Granted" "SSI: xxxxxx"
- Entries with "Skipping Call, lockout found GSSI: xxxxxx"

In editor, right clicking a highlighted GSSI toggles the lockout skip state and makes change take effect immediately. (with no need to click "Update" button).

In editor, right clicking in GSSI listbox and pressing either "CTRL" or "Shift" will set or clear all GSSIs lockout states in the list respectively. Changes take effect immediately. (with no need to click "Update" button).

Use GSSI "Update" - To store label, priority and Lockout skip state for a GSSI.

To store SSI label: Change label then press Enter key.

**NOTE: Labels can not use the characters “,” and “|”**

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## Menu - Compact (F11)

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Minimises the GUI to show "Call details" panel only.  
This window is "On Top" by default in this mode.

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## Menu - Remote (F12)

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Remote window which displays larger font for G/SSIs and their labels.

Open/Close via menu or F12 (or "X" in remote window to close)

If call is recording, GSSI field box highlights red.

The window width automatically increases to suit label size.

Double clicking "Group" caption switches to a super size font. (This resets window width)

Window state, position and normal/super size state are saved.

If no label, the G/SSI is shown in larger field

If a label exists, the label is shown in larger field and G/SSI # shown below.

Drag window from anywhere that is not text.

### Changing Remote window field colours

You can change the G/SSI field (call active) colour of the 'Remote' window to one of 7 pre-sets (1 custom).

Just double click the form (not fields) when call is active to cycle through them.

Holding Shift and double clicking form shows a textbox to enter a custom RGB (HEX) value.

This is the 2nd colour (default grey) in cycle.



This setting is saved.

A list of colors with values (and a converter) can be found here:

<http://www.yellowpipe.com/yis/tools/hex-to-rgb/color-converter.php>

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## Presets - Base frequency

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Used with carrier number and offset to calculate VC frequency.

Select frequency your network appears in. e.g. 865MHz select 800 MHz.

**NOTE: As of v1.0.7, This value should now set itself when a TETRA signal is selected.**

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## Presets - Offset

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Used by networks. Default here is +12.5 KHz.

This value is shown in 'TETRA Demodulator' "Network Info" > Current > Offset

0 = 0 KHz  
1 = +6.25 KHz  
2 = -6.25 KHz  
3 = +12.5 KHz

NOTE: As of v1.0.7, This value should now set itself when a TETRA signal is selected.

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## Presets - VC Park (Dual mode only)

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Parks SDR# VC on unused frequency when no call.

This can be any unused frequency within the 100MHz range of your base frequency. You can find a unused frequency (carrier number) with TETRA Demodulator Select a frequency in SDR# and the main plug-in window on left of SDR# shows "Current: xxxx yyy.yyyy MHz" Then xxxx = carrier number.

TETRA Demodulator does not show correct number on unused frequencies, as it does not know what offset to apply. But it's good enough so long as you don't put VC park 12.5Khz away from CC or other active carrier.

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## Presets - CC Park

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Parks SDR# on CC carrier (frequency) where we wait for call set-up activity.

You must set this to your CC carrier number.



Double clicking 'CC Park' caption (inside grey oval) moves CC SDR# to that carrier (frequency). This value is also used in Single mode to return SDR# to CC at end of call.

NOTE: As of v1.0.7, This value should now set itself when a TETRA signal is selected. Because of the auto setting of this field, manual setting of this while running is troublesome. (Use below)

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## Presets - CC(LA) switching

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Clicking the options menu 'P' a 2<sup>nd</sup> time will reveal a second panel where a drop-down box exists which if "TETRA\_la.txt" is used, will list all available LAs which can be switched too. Assuming you have entered the correct frequency [in Hz].

This list will display entries as "LA:5 – Label if exists"

Clicking entry will cause SDR# CC to switch to that frequency (LA).

Please note, by design TTT when it switches to new frequency, will try and determine the MCCH of the new frequency. If the reported MCCH of the new frequency is not on the same frequency as the one just switched too, then TTT will switch to the reported MCCH.

So in others words, don't add carriers that are not MCCH to the "TETRA\_la.txt"

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## Presets - Call time-out

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For when 'D-Release' PDU is not seen. (Happens sometimes)

If no 'D\_TX\_Granted', 'D\_TX\_Ceased' or 'D-Release' occur, then timer will time-out and force release of call and return to idle (CC).

Don't set to high or run the risk of another call bleeding through and TTT not able to return to idle until timer can time-out. 5 seconds works good. (10 seconds should be MAX)

### **NOTE:**

A quirk with calls can occur because a call does not send the "D\_Release" PDU at the end. The last PDU sent maybe the "D\_TX\_Granted" or "D\_TX\_Ceased" which causes TTT to reset the call watchdog timer which eventually times out after X amount of time. It's at this point, while waiting for this timer to time-out that the next call is set-up. The result is that this next call is missed.

I am not sure why some calls do not send the D\_Release PDU.

I am not sure if it is a fault in the plug-in or it's just a quirk in the TETRA infrastructure.

TTT is not at fault here and does not contain a bug. It is working as expect in this regard.

With the (timeslot) unallocated detection now used, increasing this value can be of benefit to private calls which seem to use a longer hang time timeout (approx 30 second or more [T301,T302]).

I use 45 seconds, which can prevent a call from prematurely ending. I still see some calls timeout as a result of not seeing the D\_Release PDU.

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## Presets - VC Volume

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Set the volume for calls on VC SDR#

Also sets volume of recorded calls.

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## Call Recording - Record All Calls/Record select GSSIs:

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This recording capability is basic and with limits.

Entire call is saved in one file. (not per SSI transmission)

### "Record ALL calls"

- All calls will be recorded.

### "Record select GSSIs"

- When a GSSI is added to listbox, these GSSIs will be the only calls recorded when seen.

### "Delete forced ended calls"

- When a call is ended early because of priority override. WAV will not be complete.
- When a call is manually release by user. WAV will not be complete.
- This option deletes these files.

### "Hold Delay"

- When a recorded call has ended, this hold delay allows that GSSI time to continue before allowing other GSSIs to be heard. A countdown timer is shown as seen in image below.
  - 1 to 255 seconds.



You can cancel the record 'Hold Delay' by clicking the visual counter for the record 'Hold Delay' when it is active. The counter is in the next to the call indicator and is redish when active.

There is no pre/post buffers.

Some of previous call audio maybe heard when priorities kick in.

Part of start or end of call may be cut-off.

Two methods of setting up recording exist.

I recommend you get everything else running OK before setting this up.

### Method 1:

Records via default recording device (Wave)

Any other sounds playing on desktop will also be recorded. (i.e. system sounds, playing a WAV)

### Method 2:

Records via default recording device (when set as virtual cable line#)

This way you can playback WAVs or use system without interfering with recording.

See "[TTT\\_set-up\\_manual.pdf](#)" for set-up and configuration.

Filenames for recorded files will be:

Group calls: time\_callid\_gssi.wav

Private calls: time\_callid\_gssi[0]\_issi[caller]\_issi[caller].wav

Saved in the folder "Record" under the folder "Daily" and "ddmmyy".

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## **Options - Suppress lockout messages**

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When call priority used, this will stop the lockout GSSI messages showing in event log.

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## **Options - Ignore call priority (\* Limited in Single mode)**

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Ignore any priorities that are set.  
Calls will be first seen first served without interruption.

Priorities will be ignored if the Hold function is in-use.

### **Priorities limitation in the Single mode**

Priorities will only work fully in single mode for networks where there is only one carrier.

Otherwise priorities will function as follows:

When a call is on the CC (carrier), a priority will function as expected.

When a call is on the VC (carrier), where VC is not the same as CC (main carrier), then no priorities can occur.

For priorities to work fully you need to be listening to CC (main carrier) all the time, As soon as you move to VC (where carrier is not same as CC) priorities will no longer function.

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## **Options - Ignore priorities when record call**

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If the current call is been recorded, this option will prevent priorities overriding/stopping this call.  
This only occurs if the above option "Ignore call priority" option is NOT set (to allow priorities).

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## **Logging Options - Create CC,VC log**

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In Dual mode creates 2 log files of the raw output of CC and VC 'Network Info' window.

In Single mode creates 1 log file of the raw output of 'Network Info' window.

This is data is de-duplicated a little as most PDUs are sent 4 times.

Starts new file on new day.

Saved in folder "Daily" in a folder for each day.

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## **Logging Options - Create event log**

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Saves what is shown in event log window to file.

Starts new file on new day.

Saved in folder "Daily" in a folder for each day.

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## Logging Options - Create Call Activity CVS log

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Saves 2 files for daily call count for each GSSI seen.

Starts new file on new day.

Stored as e.g. "Call\_Activity\_13-06-2018.csv"

Saved in folder "Daily\ddmmyyy" in a folder for each day.

First row is labels (A1="GSSI", B1="Call Activity")

File Format: GSSI;CallactivityCount

Can be used in a spreadsheet with chart to graphically display call activity.

Stored as e.g. "DailyCallActivity\_13-06-2018.csv"

Saved in folder "Daily\ddmmyyy" in a folder for each day.

File Format: CALLID;GSSI;TIME(of call);PDU-GRANT\_TYPE

Can be used in a spreadsheet with chart to graphically display call activity.

**NOTE: In Single mode this is a log only mode that restricts call playback to only playing calls that appear on the CC (main carrier). To log this data we need to stay on CC all the time.**

In Single mode, as the call set-ups are seen, they will be displayed in the "Call details" panel (and Remote).

The following detail will be displayed. Call ID, Carrier, Timeslot, GSSI and GSSI label (if any).

The "Call" indicator will not go green (except if a call is on CC). And SSI and SSI label (if any) will not be seen.

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## SDS Location Data

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TETRA Trunk Tracker reads D\_SDS\_Data (Location data [GPS]) that the 'TETRA Demodulator' plug-in outputs and plots them in the DSDPlus program LRRP. The event log window will also show the D\_SDS\_Data PDUs.

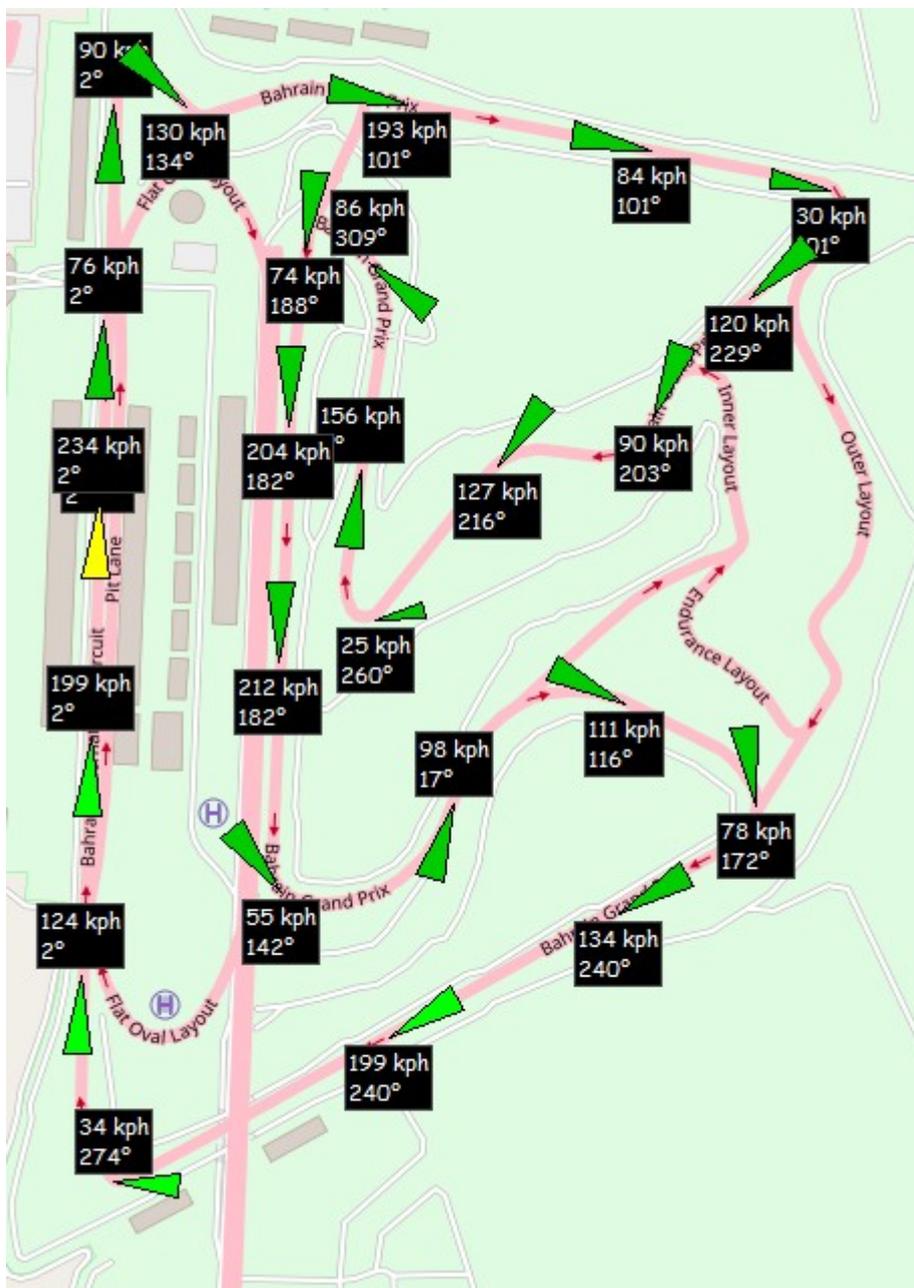
Both public release (1p101) and Fastlane versions of DSDPlus LRRP supported.

- Public release – Does not support 'Speed' and 'Direction'

Even though 'help' in LRRP indicates via F4 and F5 that it does. Unless I'm missing something.

DSD+ LRRP has a limitation with a speed value of 400 KM/h, so any TETRA values are above 400 KM/H will be sent to LRRP as 400 KM/H. The event log will still show correct value.

Here is a sample showing a lap at the Bahrain Grand Prix circuit.



What is shown in the event log window

```
20/07/2018 1:28:46 PM SDS Location data for SSI:45678 Lat: 26.032416° Long: 50.510459° Speed:15.0km/h Direction: 2°
20/07/2018 1:28:47 PM SDS Location data for SSI:45678 Lat: 26.034351° Long: 50.510540° Speed:76.0km/h Direction: 2°
20/07/2018 1:28:47 PM SDS Location data for SSI:45678 Lat: 26.036433° Long: 50.510650° Speed:90.0km/h Direction: 2°
20/07/2018 1:28:48 PM SDS Location data for SSI:45678 Lat: 26.036406° Long: 50.511423° Speed:130.0km/h Direction:134°
20/07/2018 1:28:48 PM SDS Location data for SSI:45678 Lat: 26.036426° Long: 50.513780° Speed:193.0km/h Direction:101°
20/07/2018 1:28:49 PM SDS Location data for SSI:45678 Lat: 26.035994° Long: 50.516380° Speed:84.0km/h Direction:101°
20/07/2018 1:28:49 PM SDS Location data for SSI:45678 Lat: 26.035614° Long: 50.518277° Speed:30.00km/h Direction:101°
20/07/2018 1:28:50 PM SDS Location data for SSI:45678 Lat: 26.034570° Long: 50.517433° Speed:120km/h Direction:229°
```

### **To use**

In TETRA Trunk Tracker, go to options tab "G"

- Set "Enable SDS - Location Data (GPS)"
- Set "LRRP (Public release)" if you only have that version.
- Set save path for the file DSDPlus.LRRP to you DSDPlus folder. (This also tests for LRRP.exe) Label will turn green when path valid.

If you leave the path blank to DSDPlus.LRRP, then you will have to do the following:

Copy LRRP.exe and LRRP.cfg to TETRA Trunk Tracker folder. **[Note 1]**

Start LRRP and configure as you like.

- Remember key "?" in LRRP for help

(z = zoom (auto), s = km/h, g= show all groups, a= all datapoints or l= last datapoint)

Start SDR# and TETRA Trunk Tracker as per set-up instructions.

With any luck, SDS data will be logged to event log window/file and LRRP will plot GPS positions on map.

### **Bugs/limitations:**

Not sure if D\_SDS\_Data PDUs are seen when on a call (VC) where carrier# is not same as CC (main).

Event log window/file does not space lines nicely here. Not sure if SDS PDUs are only sent on CC or can also be sent on VC.

DSD+ LRRP has a limitation with a speed of 400 KM/h, so any TETRA values are above 400 KM/H will be sent to LRRP as 400 KM/H. The event log will still show correct value.

This does not affect Public version of LRRP as it does not use speed (or direction) anyway.

Current implementation of the long location PDUs only use LAT/LONG/Velocity and direction elements.

If long location PDU does not have elements velocity an/or direction then "0.0km/h" and "0" are shown.

Long location PDUs only supported using plug-in [tetra\\_x86\\_2018-09-11 and later](#).

**Please note that the Public release and any Fastlane version of LRRP prior to v1.15 (from DSDPlus v2.113) may stop retrieving map data in the future because of changes in map data retrieval via http, which will change to https.**

### **NOTE 1:**

Side effect of this is that LRRP will download map data again.

Two workarounds to this would be:

1. Copy the "Singles" folder from the DSD+ folder where you copied LRRP from.
  - Downside is you will have 2 versions of map data.
2. Create a SymLink to the folder "Singles" in your original DSD+ folder where LRRP came from.
  - This is the better option as any downloaded map data will be included with other map data.

Thanks to "gustavobm" for help testing the addition of SDS to TETRA Trunk Tracker.

Thanks to "ale462013 (Alessandro)" for helping implementing the SDS long location PDU.

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## Checkbox Detection

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This is used to control 'TETRA Demodulator' checkboxes 'Demodulator' and 'Auto'. **Set-up is required.**

See "[TTT\\_set-up\\_manual.pdf](#)" for usage details.

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## "Call" indicator - Shows call state

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### Secondary function:

Clicking when green will exit call.

The current GSSI will go into a temporary lockout pool for 15 seconds.

This is to prevent same GSSI restarting because of late entry D-Setup PDUs.

After 15 seconds the GSSI is cleared and calls allowed to be passed again for that GSSI.

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## GSSI Hold function - Only allows calls with GSSI

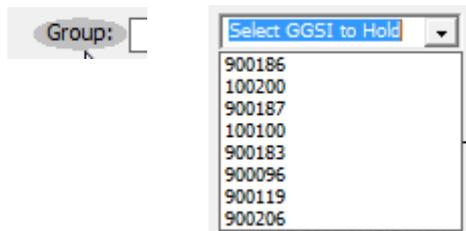
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On a call, pressing space bar will choose current GSSI to hold on. Space bar again to clear \*\*.

Left clicking "Call details" panel "Group" caption will also set and clear the GSSI Hold.

Press CTRL and left click "Call details" panel "Group" caption to display the last 8 GSSIs that can be used to set a GSSI Hold. NOTE: New GSSIs do not appear in list while drop list is visible.



Press Shift and right click "Call details" panel "Group" caption to display manual GSSI entry box. Enter a valid GSSI and press Enter to set a GSSI Hold.



"Call details" "Group" caption will change to orange and tool tip will show the GSSI that is on HOLD.



**\*\* TETRA Trunk Tracker window MUST have focus for this to work.**

Priorities are ignored when HOLD in-use.

No call skipping will be indicated on event log window.

No lockout call skipping will be indicated on event log window.

GSSI Hold function is not saved and will reset to normal operation after restart.

When a GSSI that is on HOLD has it's lockout skip state changed, it will clear the HOLD.

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## Position SDR#

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Sets if the SDR# and CC 'Network Info' windows will be restored to a defined position on start or reset. All position fields **need to be set before enabling** "Position SDR#" checkbox.

**Options**

- Suppress lockout messages
- Ignore call priority - LIMITED
- Ignore priorities when recording call
- Position SDR#
- Start Network Info minimized

To store window position, **double click** each field (the text boxes with the red line under them in image) to retrieve and store current position of the window.

1<sup>st</sup> field is for CC SDR#

2<sup>nd</sup> field is for VC SDR#

3<sup>rd</sup> field (below 2<sup>nd</sup> field) is for CC 'Network Info'

Single mode only uses one CC SDR# field.

"Start Network Info minimised" sets the state of the window on start or reset.

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## Custom sounds

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You can use custom sounds with TETRA Trunk Tracker for indicating different call states.

- Call set-up
- Call release
- SSI grant
- SSI ceased
- Priority (See further down below for explanation on how to use this one)

To use, copy suitable WAV to a sub folder "snd" using one of the following filenames listed below.  
To disable, remove the WAV files of the call states/priority you wish to disable.  
(e.g. move to a sub folder "snd\disabled")

TTT scans for these call state/priority sounds about every second.  
Restarting of TTT is NOT required when added and removing the WAVs.

snd\_call\_released.wav - When call ends  
snd\_call\_setup.wav - When call starts  
snd\_priority1.wav - When priority # occurs (Only use one)  
snd\_priority2.wav  
snd\_priority3.wav  
snd\_priority4.wav  
snd\_priority5.wav  
snd\_priority6.wav  
snd\_priority7.wav  
snd\_priority8.wav  
snd\_priority9.wav  
snd\_ssi\_ceased.wav - When each SSI has ceased TX.  
snd\_ssi\_granted.wav - When each SSI is granted TX.

**Only use one priority# WAV file at a time.**

If more than one WAV file is used, only the highest number (file name #) will be in effect.

E.g. If snd\_priority4.wav and snd\_priority5.wav are seen by TTT then only snd\_priority5.wav will be used.

When 'snd\_priority5.wav' is used, A GSSIs with a priority value of 5 and above will play that sound when a priority is triggered.

GSSIs with priority values of 1 to 4 will NOT play any sound when those priorities are triggered.

WAV format:

For best results use 8000Hz, 2 channel, 16 bit short duration WAVs.

Other samplersates will probably work but the larger file size may delay playback.

Long duration WAVs is not a good idea, it may delay playback, use 1 second or less.

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## Command line options

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Search changelog.txt for description of these options.

Usage:

Create a shortcut to TTT  
Right click and click properties  
Add " -??" to end of line for "Target"  
e.g. "C:\Path\_To\_TTT\tetra\_trunk\_tracker.exe" -??

SDR# bandwidth adjustment. ( -bw # ) Value 10-250000 is valid.  
The default value used is 26000 (when option not used)  
e.g. "C:\Path\_To\_TTT\tetra\_trunk\_tracker.exe" -bw 27500

Disable SDS PDU log. ( -ds )  
e.g. "C:\Path\_To\_TTT\tetra\_trunk\_tracker.exe" -ds

Disable 'Private call' Simplex/Duplex[half] set-ups. ( -di )  
e.g. "C:\Path\_To\_TTT\tetra\_trunk\_tracker.exe" -di

Disable 'Private call' duplex SDR# CC switching. ( -dd )  
e.g. "C:\Path\_To\_TTT\tetra\_trunk\_tracker.exe" -dd

Disable Auto set Base frequency/Main carrier (CC) and Offset. ( -dm )  
e.g. "C:\Path\_To\_TTT\tetra\_trunk\_tracker.exe" -dm

Set custom SDR# Net Remote port #. ( -sp # )  
e.g. "C:\Path\_To\_TTT\tetra\_trunk\_tracker.exe" -sp 12345

Disable timeslot unallocated detection ( -du )  
e.g. "C:\Path\_To\_TTT\tetra\_trunk\_tracker.exe" -du

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## TETRA Trunk Tracker created files

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**NOTE: Do not edit files while program is running as changes will be overwritten on program exit.**

Other than "TETRA\_mnc.txt" and "TETRA\_la.txt". I don't recommend editing these files directly anyway.

**TETRA\_SSI.txt** and **TETRA\_GSSI.txt** are sorted on program start.  
Large record files may delay start of TETRA Trunk Tracker.

- GSSI list file (**TETRA\_GSSI.txt**):

Saves GSSI, MCC, MNC, Label, Priority, Lockout skip state.

Must follow delimited file format: GSSI;MCC;MNC;Label;Priority;Lockout skip state.

Labels must not use Semicolon ";" or Vertical bar/Pipe "|" characters.

Labels are limited to 30 characters.

Must not have anything else on line.

No comments permitted "#" or "'" on same line or separate line.

Anything but exactly what is shown will cause crash and/or loss of data.

e.g.: 100000;200;5;Courier Company;5;True

- SSI list file (**TETRA\_SSI.txt**):

Saves SSI, GSSI, MCC, MNC, Label, Last seen date/time.

Must follow delimited file format: SSI;GSSI;MCC;MNC;Label;Last seen date/time

Labels must not use Semicolon ";" or Vertical bar/Pipe "|" characters.

Labels are limited to 30 characters.

Must not have anything else on line.

No comments permitted "#" or "'" on same line or separate line.

Anything but exactly what is shown will cause crash and/or loss of data.

e.g.: 99999;100000;200;5;Driver 5;13/09/2018 11:19:59 AM

- Setting save file (**Tetra-trunk-tracker.dat**)

Saved program settings.

- Event LOG file (**TETRA\_event\_XXXX.log**) – 'XXXX' = current MCCH

Saved daily, will have call events from event log window in TTT.

- Raw CC VC log files (**TETRA\_cc\_XXXX.log**, **TETRA\_vc.log**) – 'XXXX' = current MCCH

Saved daily, has raw output of "Network Info" window for CC and VC.

- Country Code labels file (**TETRA\_mcc.txt**) **[list supplied]**

User created label file - Displays as menu item (next to "Tools")

Must follow delimited file format: MCC;Label

Labels must not use Semicolon ";" or Vertical bar/Pipe "|" characters.

Must not have anything else on line.

No comments permitted "#" or "'" on same line or separate line.

Anything but exactly what is shown will cause crash and/or loss of data.

e.g.: 200;YourCountry

- Network labels file (**TETRA\_mnc.txt**)

User created label file - Displays as tool-tip where MNC,LA are shown on UI.

Must follow delimited file format: MCC;MNC;Label

Labels must not use Semicolon “;” or Vertical bar/Pipe “|” characters.

Must not have anything else on line.

No comments permitted “#” or “'” on same line or separate line.

Anything but exactly what is shown will cause crash and/or loss of data.

e.g.: 100;5;Big Company Network

- Location Area labels file (**TETRA\_la.txt**)

User created label file - Displays in menubar and as tool tip where MNC,LA are shown on UI.

Only when Network labels file used.

Must follow delimited file format: MCC;MNC;LA;FREQ[Hz];Label

Labels must not use Semicolon “;” or Vertical bar/Pipe “|” characters.

Must not have anything else on line.

Anything but exactly what is shown will cause crash and/or loss of data.

e.g.: 100;5;20;420187500;Mt Somewhere

Using “TETRA\_la.txt” file automatically enables the LA switching feature.

- Winsock errors log file (**error.txt**)

- Selected GSSIs for call recording file (**TETRA\_rec\_gssi.txt**)

Must only have one GSSI per line

Must not have anything else on line.

No comments permitted “#” or “'” on same line or separate line.

Anything but exactly what is shown will cause crash and/or loss of data.

- Call Activity CVS log #1 file (**Call\_Activity\_xx-xx-xxxx.csv**)

Saves GSSI and call activity counter for day.

- Call Activity CVS log #2 file (**DailyCallActivity\_19-06-2018.csv**)

Saves Call ID, GSSI, Time of Call, PDU (D-Setup) and grant message call activity for day.

- SDS location data file for DSDPlus LRRP (**DSDPlus.LRRP**)

Stores SDS location data (GPS) that LRRP uses to plot on map.

- SDS PDU log (**TETRA\_sds\_data\_xxxx.log**) – 'xxxx' = current MCCH

Stores all seen SDS PDUs, (e.g. Text messaging, Location data etc...)

For testing only (may not keep these):

- Private call set-up log (**TETRA\_private\_xxxx.log**) – 'xxxx' = current MCCH

Stores information related to a private call setup.

- Private call set-up log (**TETRA\_private\_pdus\_xxxx.log**) – 'xxxx' = current MCCH

Stores PDUs used to set-up private calls.

## Sample of folder structure:

- **TETRA\_Trunk\_Tracker\_1.0.7** (Folder)
  - **Daily** (Folder)
    - **20180701** (Folder)
      - **Record** (Folder)
        - 014021\_14520\_100801.wav (Group call wav)
        - 123300\_12345\_0\_12345678\_16777215.wav (Private call wav)
      - Call\_Activity\_01-07-2018.csv
      - DailyCallActivity\_01-07-2018.csv
      - TETRA\_cc.log
      - TETRA\_event.log
    - **Singles** (Folder) for LRRP map data (optional)
    - **snd** (Folder) for custom sounds (optional)
  - LRRP.exe (optional)
  - LRRP.cfg (optional)
  - DSDPlus.LRRP (optional)
  - TETRA\_GSSI.txt
  - TETRA\_la.txt
  - TETRA\_mnc.txt
  - TETRA\_rec\_gssi.txt
  - TETRA\_SSI.txt
  - tetra\_trunk\_tracker.dat
  - tetra\_trunk\_tracker.exe