W1UVX
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TCDN / Fldigi / Notifications

Technical Note

To:	FILE
Title	FLDIGI Notification Usage and Examples
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Date	2025/02/27
File	nbems-tn-ping_pong-w1uvx.docx

1 Introduction

Fldigi provides a feature that allows a received text string to trigger an user defined action. For example, you can configure the 'Notification' application to respond to a received text string. This Tech Note describes how to configure the Notification application to respond to a received text string 'CALLSIGN>PING' and respond with a transmitted string 'PONG de CALLSIGN'. This Ping/Pong example can be used to check if other stations are on the air monitoring the frequency.

The original ping-pong source came from Video: Mike KG4VDK, Jason KM4AC
https://www.youtube.com/watch?v=aXQVa7Ko_bA

2 Configuration

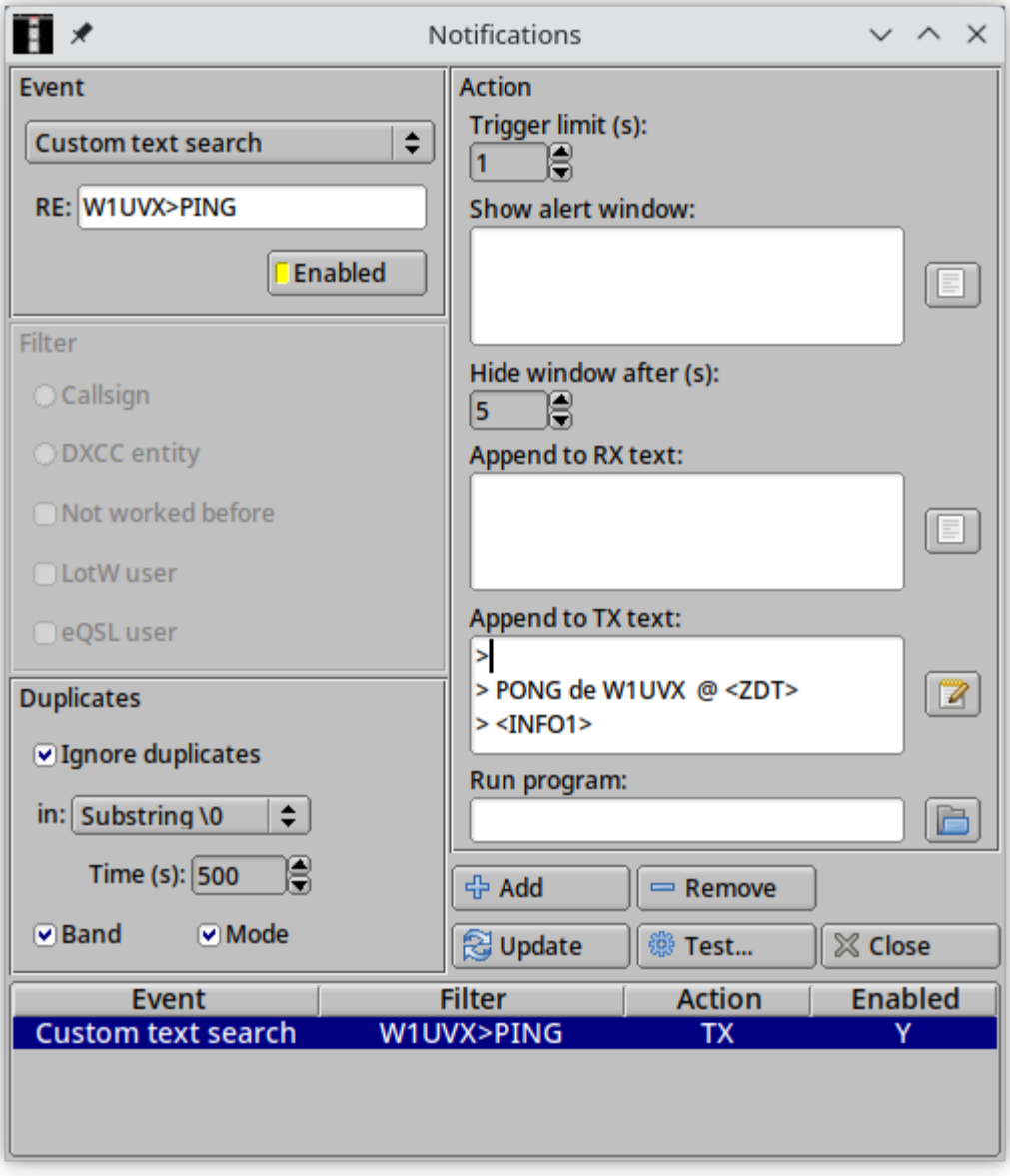
To configure FLDIGI Notification for a Ping/Pong action/response:

1. From the main fldigi screen, select Configure → Notifications.
2. Under the Event block menu, select 'Custom text search'.
3. In the 'RE:' window, type in the search string that fldigi will search for in the receive window – 'W1UVX>PING'. (Be sure to use your own call sign, not mine.)
4. Select 'Enable' button. This will enable the notification action to execute.

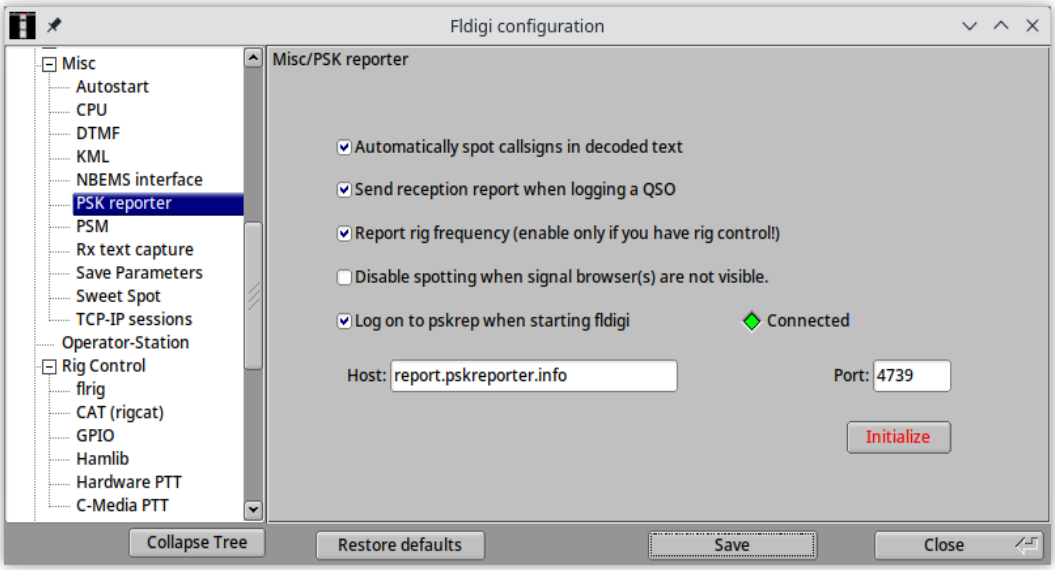
5. In the ‘Append to TX text’ window, type in the notification action to occur when the search string is seen in the receive window. In this example, fldigi will respond to a ‘W1UVX>PING’ received string with:

```
<WAIT:5>
<TX>
>
> PONG de W1UVX  @ <ZDT>
> <INFO1>
>
<RX>
```

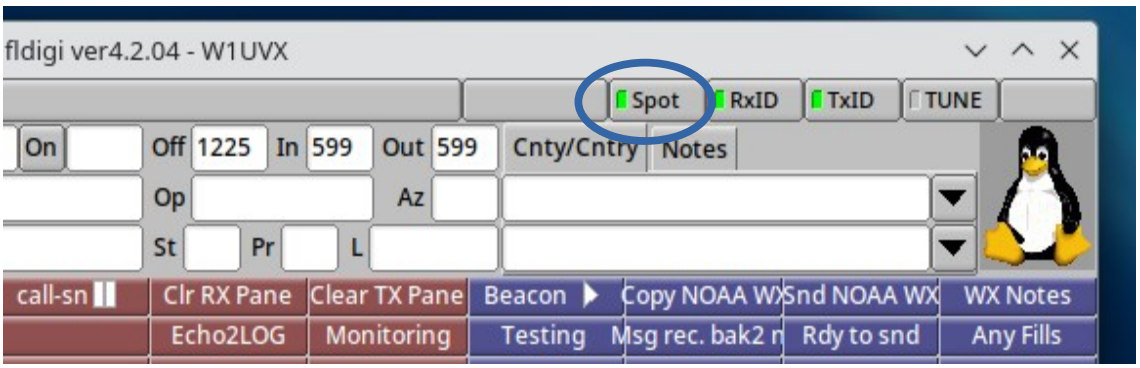
6. In the ‘Duplicates’ window, set the ‘Time(s)’ value to 500.
7. When setup is complete, select the ‘+Add’ button. The action should indicate the Notification is now active. If you make updates to the notification, be sure to hit the update button.



8. If ‘Automatically spot call signs in decoded text’ is not selected in your fldigi configuration, open the Configure Dialog →Misc→PSK reporter configuration box and select the following:



9. After initializing, or restarting fldigi, you should have a ‘Spot’ enable button visible on the top right status bar. Enable the spot action.



10. Set your frequency and receive mode. At this point your fldigi should be armed to automatically respond to an incoming ‘W1UVX> PING’ with an outgoing transmission ‘W1UVX de PONG’.

3 Concept of Operations

3.1 Ping/Pong

User A wants to check to see if User B station is up and receiving on a particular frequency:

User A	User B / NCS / Sentinel Station
User A sends: CallSignB>PING de CallSignA	Upon receiving the transmitted string, the UserB fldigi station will automatically transmit: PONG de CallSignB

3.2 Ping/Pong With Additional User B Information

The UserB station can modify their PONG response to include other station or reception information. In this example, the NCS station will respond with the PONG return with the time of the PING and the S/N report of the sending station. The tag <INFO1> will return the s/n information only on certain modes.

User A	User B / NCS / Sentinel Station
	UserB modifies the PONG notification response with additional status information: <TX> PONG de NCSCallSign @ <ZDT> <INFO1> <INFO2> This station will be on the air until 13:00 UT <RX>
User A sends: CallSignB>PING	Upon receiving the PING string from UserA, the UserB station will automatically transmit: PONG de NCSCallSign @ 04/19/2024 13:09Z s/n -17 dB, Phase: 75% This station will be on the air until 13:00 UT

4 Appendix

4.1 Best Practices

When conditions have significant noise:

- Use capital letters in text messages
- Use carriage returns or unique characters before and after your message.

4.2 Fldigi Users Manual Documentation

http://www.w1hkj.com/FldigiHelp/index.html

4.3 Ping/Pong Source Video: Mike KG4VDK, Jason KM4AC

https://www.youtube.com/watch?v=aXQVa7Ko_bA

4.4 FCC rules for Automatically Controlled Digital Stations

https://www.law.cornell.edu/cfr/text/47/97.221

§ 97.221 Automatically controlled digital station.

(a) This rule section does not apply to an auxiliary station, a beacon station, a repeater station, an earth station, a space station, or a space telecommand station.

(b) A station may be automatically controlled while transmitting a RTTY or data emission on the 6 m or shorter wavelength bands, and on the 28.120–28.189 MHz, 24.925–24.930 MHz, 21.090–21.100 MHz, 18.105–18.110 MHz, 14.0950–14.0995 MHz, 14.1005–14.112 MHz, 10.140–10.150 MHz, 7.100–7.105 MHz, or 3.585–3.600 MHz segments.

(c) Except for channels specified in § 97.303(h), a station may be automatically controlled while transmitting a RTTY or data emission on any other frequency authorized for such emission types provided that:

(1) The station is responding to interrogation by a station under local or remote control; and

(2) No transmission from the automatically controlled station occupies a bandwidth of more than 500 Hz.

[60 FR 26001, May 16, 1995, as amended at 72 FR 3082, Jan. 24, 2007; 77 FR 5412, Feb. 3, 2012]