Sniffer 15.4

User Manual and Documentation

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Sniffer 15.4 features

- Capture 802.15.4 frames (by using the sniffer 15.4 accessory)
- Display captured frames
- Filtering (by frame type, source address, destination address, and payload)
- Store captured frames on phone memory for future display
- Export captured frames to PCAP format (Wireshark compatible)
- Live forwarding to an arbitrary IP address using the Zigbee Encapsulation Protocol (ZEP)
- Test mode (to try out application functionality without the sniffer 15.4 accessory)

Capturing frame

Attach the phone to the sniffer 15.4 accessory. Android will ask to launch the Sniffer 15.4 Application. Choose okay. You can optionally choose to set the Sniffer 15.4 Application as the default application for the Sniffer 15.4 Accessory. In this way, Android will automatically launch the application when the sniffer is attached. Once the application is loaded the interface in Fig. A is showed. To select the radio channel click the menu button and select "Options" from the displayed menu. Tap on the "Channel" item, select the sniffer channel from the displayed dialog and click okay. Go back to the main screen and click on the start button to start sniffing.
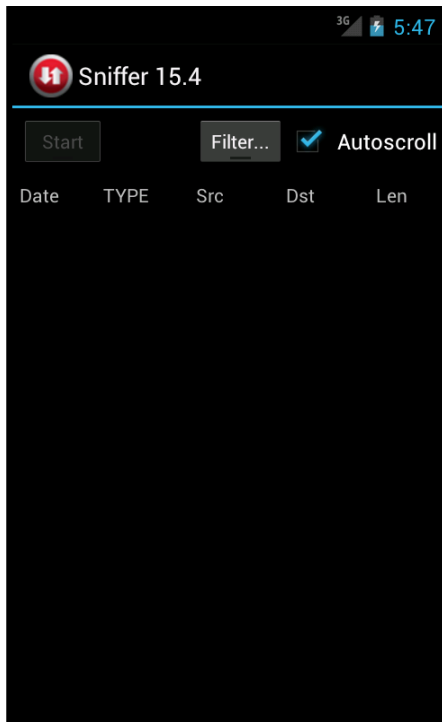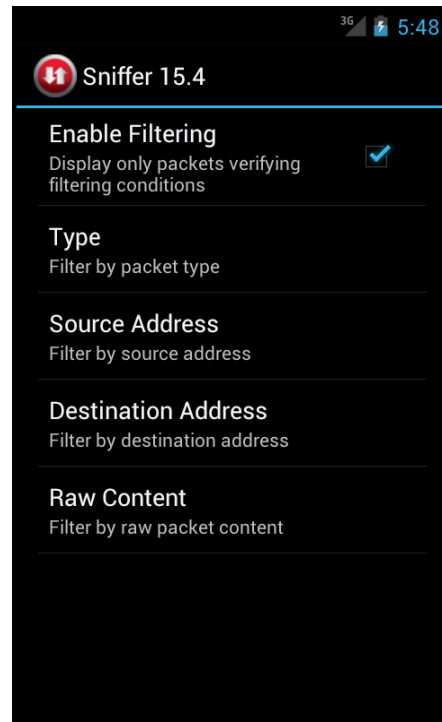
Fig. A   Fig. B

Filtering

Click on the Filtering button to display the filtering options (see Fig. B). Check the "Enable filtering" item to enable frame filtering. You can filter frames by type, source address, destination address and raw content.

Live forwarding

While sniffing, captured frames can be forwarded to an arbitrary IP node, using the Zigbee Encapsulation Protocol (ZEP). The destination IP node can be in the local network or in the Internet, as long as the phone has Internet access. Forwarded nodes can be analyzed by a packet analyzer (e.g., Wireshark) running on the destination node.

To enable live forwarding, open the menu and click on "Options". Then check "Enable Forwarding" and sets the forwarding address and port. Finally, start sniffing: captured frames will be forwarded to the chosen destination address.