

CSCI 5448 Spring 2016

PACKET SNIFFER

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[Click Here for Project Demo](#)

Use Cases

Capture Packets

- Allows the user to be displayed the packets being transmitted in real time
- Actors: All users
- Pre-conditions: Users have opened GUI
- Post-conditions: Users should have basic knowledge of packet formats and should be able to read them
- Frequency of Use: High (main function of packet sniffer)
- Flow of Events:

Open application -> Click "Start" -> Select Network Interface -> Press Okay ->
Transmitted packet details are displayed on the UI

Filter Packets

- Enables users to view information of packets of their preference
- Actors: All users
- Pre-conditions: Users should start the application and select the type of packets to filter
- Post-conditions: Users should be displayed only those type of packets that have been filtered out by the user
- Frequency of Use: High
- Flow of Events:

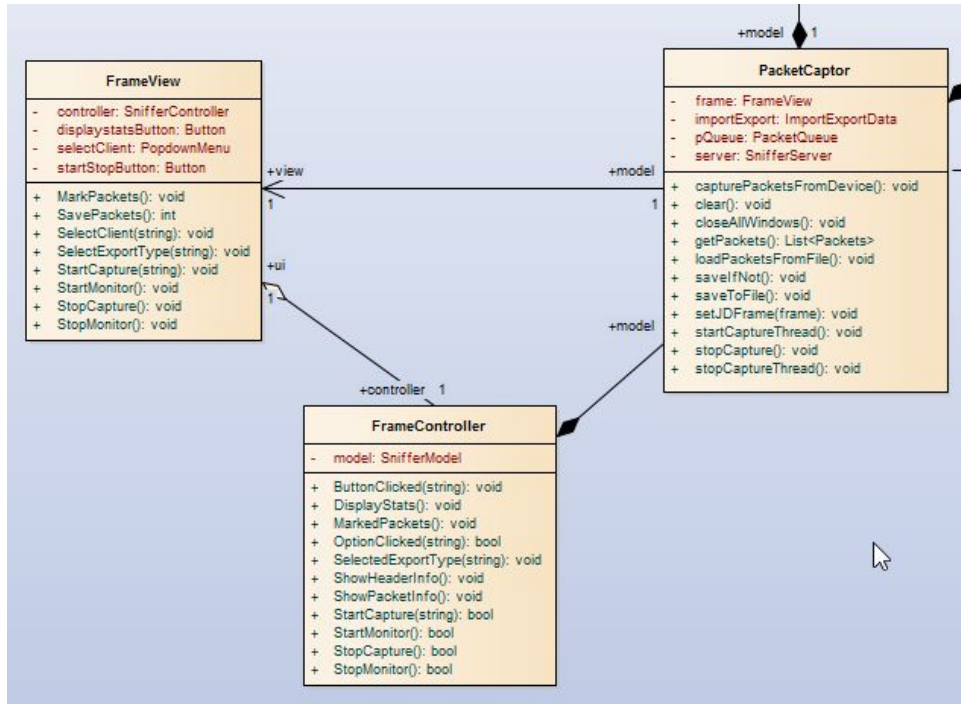
Start application -> Click Monitor button -> Enter filter type -> Click OK ->
System displays only filtered packet information

Display Network Statistics

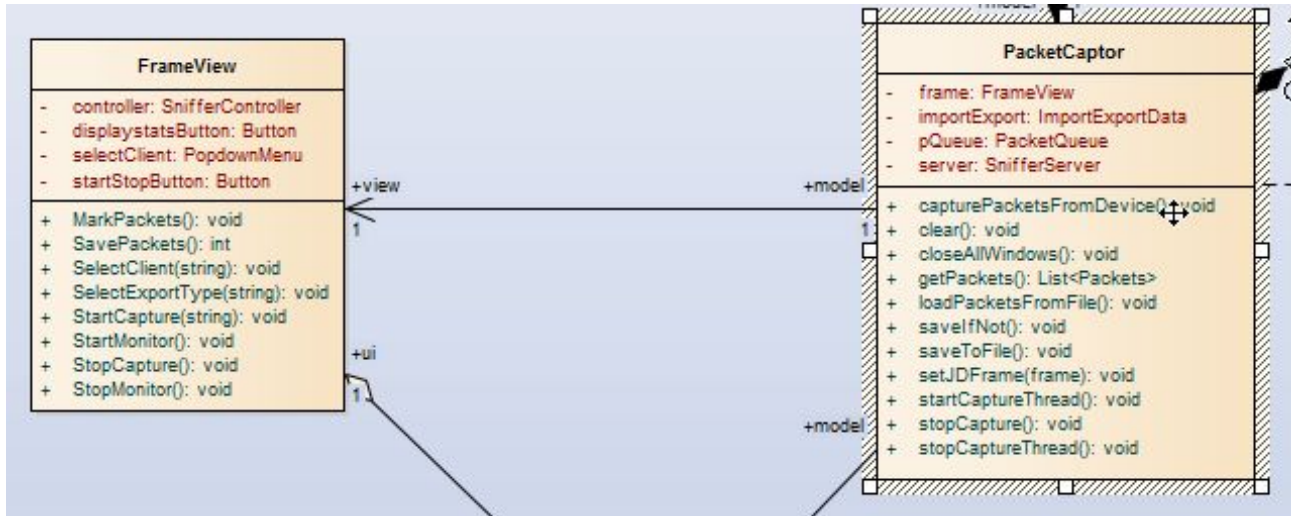
- Enables user to view real time statistics of the information being transmitted along the network
- Pre-conditions: Users should start the applications and start monitoring packets
- Post-conditions: Users should be displayed real-time statistics of all transmitted packets such as number of a particular type of packet, origin and destination
- Frequency of Use: High
- Flow of Events: Start application -> Start monitoring packets -> Click on "Statistics" in the menu bar -> select Cumulative -> Select Overall Stats

Design Patterns

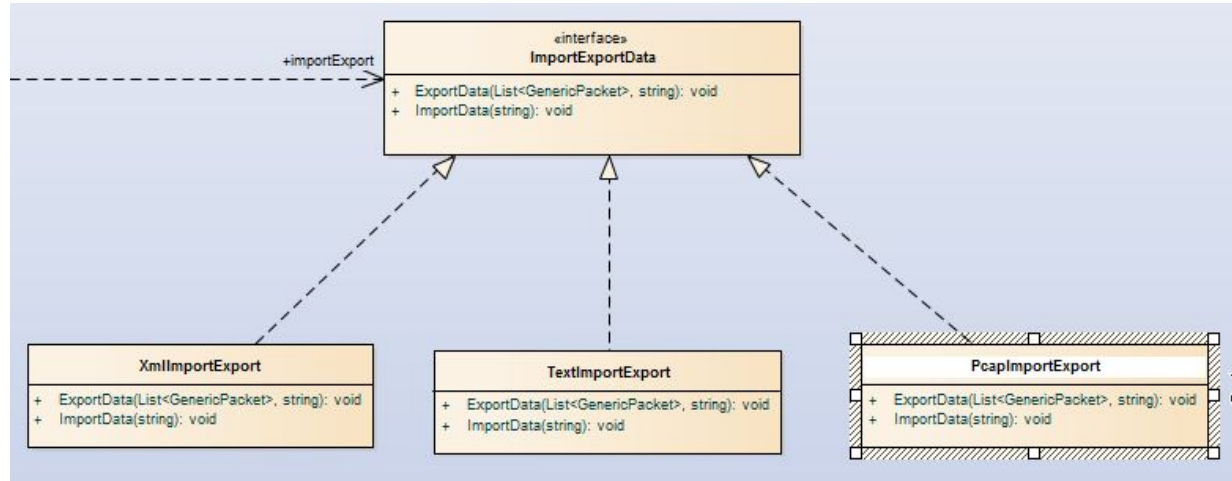
Model View Controller



Observer Pattern



Strategy Pattern



- User gets to save file with any of the extensions shown in the figure above
- System resolves the input file type when the user loads any log file stored with one of the above extensions