| Class Name: Filter | |
|---|---|
| **Description:** Contains Expression(s) by which to visualize and modify the PDML capture | |

| Contracts: | Collaborations: |
|---|---|
| 8. Manage Filter | |
| *Add Filter to Rule* <br> addFilter(Rule, Filter) <br> Description: Receives a filter and a rule, adds the filter to the rule. <br> Pre: The Rule exists. <br> Post: | Rule (22) |
| *Delete Filter from Rule* <br> deleteFilter(Filter) <br> Descritpion: Receives a filter and deletes it. <br> Pre: The Filter is the last added to the Rule. <br> Post: | Rule (22) |
| 9. Manage Expression <br> *Add Primitive to Expression* <br> addPrimitive(String,Expression) <br> Description: Receives a primitive (composed from the string) and adds it to the Expression <br> Pre: The Expression is in the Berkeley Packet Filter (BPF) syntax. <br> Post: The addition of a primitive to the Expression for this Filter. | Expression (4) |
| *Remove Primitive from Expression* <br> deletePrimitive(String, Expression) <br> Description: Deletes a specified primitive. <br> Pre: The primitive is contained in this Expression. <br> Post: The deletion of the primitive from the Expression for this Filter. <br><br> **Private Responsibilities:** | Expression (4) |

| Comments: |
|---|
| Contains one Berkeley Packet Filter (BPF) expression |

| **Class Name:** Protocol | |
|---|---|
| **Description:** Contains Packets by which the matching Formatter can modify | |
| **Contracts:** | **Collaborations:** |
| 19. Visualize Protocol | |
| *Show Protocol* | Formatter (10) |
| showProtocol(Protocol) | |
| Description: Receives a protocol currently hidden and displays it. | |
| Pre: The protocol exists within the PDML and is hidden. | |
| Post: | |
| | |
| *Hide Protocol* | |
| hideProtocol(Protocol) | |
| Description: Receives a protocol currently displayed and hides it. | |
| Pre: The protocol exists within the PDML and is not hidden. | Formatter (10) |
| Post: | |
| | |
| **Private Responsibilities:** | |
| | |
| **Comments:** | |
| Contains one or more Packets | |

| **Class Name:** tShark | |
|---|---|
| **Description:** Handles operations for communications between tShark and Formatter Protocol System (FPS) | |
| **Contracts:** | **Collaborations:** |
| 27. Convert PCAP to PDML | |
| *Send PCAP File* | File (7) |
| sendPCAP(File) | File (7) |
| Description: Receives a PCAP file to be parsed by tShark tool | |
| Pre: The file has not been stored before on the current local filesystem of the user. | |
| Post: tShark returns no error on accepting the PDML file to parse. | |
| | |
| *Return Parsed PDML File* | |
| storePDML() | |
| Description: Receives a parsed PDML file and stores it on the local filesystem. | |
| Pre: tShark parsed the PDML with no errors. | |
| Post: A new file of type PDML is stored on the local filesystem of the user to be opened by PFS. | |
| | |
| **Private Responsibilities:** | |
| | |
| **Comments:** | |
| External tool to Formatter Protocol System (FPS) | |