Given an input text file that has some Ethernet packets, create a packet analyzer that does the following

* Read the file into some packets. Each line in the input file represents one packet data.
* Parse each packet into its own fields.
* Write the parsed packets with their fields in an output text file.

Notes:

* Sample input and output text file are given for reference.
* All packets are Ethernet packets, but they can either be just raw Ethernet frames or Enhanced Common Public Radio Interface (e-CPRI) frames built over Ethernet.
  + Ethernet packet is constructed as per the following figure:

Table

Description automatically generated

* + To know whether a frame is an e-CPRI frame, check that the Type field is “AEFE”.
  + Given e-CPRI frames are built over Ethernet, so it has the same fields as the Ethernet frame, but the payload/data field has the following:
    - Common Header:

Table

Description automatically generated with medium confidence

* + - Real-Time Control Data:

A picture containing graphical user interface

Description automatically generated

References:

* More Info on Ethernet frames:
  + <https://en.wikipedia.org/wiki/Ethernet_frame>
* e-CPRI Specifications:
  + <http://www.cpri.info/downloads/eCPRI_v_2.0_2019_05_10c.pdf>