This program (named MotifPredictor) is used to identify motifs (miRNA-TF-gene loops) from networks.

With miRNA-TF, miRNA-gene, TF-miRNA, and TF-gene interactions as input, MotifPredictor can identify three types of motifs. Among those three motifs, two were feed-forward loops (FFLs) (types I and type II), and the remaining one was feedback loop (FBL) (type III).

In a type I motif, the TF regulates its targeted miRNA as well as targeted protein-coding gene (non-TF gene) at the transcriptional level, whereas the employed miRNA regulates the targeted protein-coding gene at the post-transcriptional level.

In a type II motif, the TF regulates its targeted protein-coding gene at the transcriptional level, while the miRNA regulates its targeted protein-coding gene and the TF at the post-transcriptional level.

Finally, in a type III motif, both the TF and miRNA regulate their consensus targeted protein-coding gene, whereas the miRNA and TF mutually regulate each other.

Please see Readme.txt for more information on how to use MotifPredictor.