This is a video showing the use of the codes on one of the pairs in our supplementary material. Here, we consider the labeled Petri net in Fig. 1 that has 11 places and nine transitions, and its fault pattern net in Fig. 2 that has three places and four transitions.

In Step 1, we input the file name of the labeled Petri net, the number of places of the labeled Petri net, and the number of transitions of the labeled Petri net.

In Step 2, we input the file name of the fault pattern net, the number of places of the fault pattern net, and the number of transitions of the fault pattern net.

In Step 3, we input a cell array where each row contains indices of observable transitions with the same label for the labeled Petri net. Here, t_1 associates with event *a* shown in the first row, t_2 associates with event *b* shown in the second row, t_6 associates with event *c* shown in the third row, and t_9 associates with event *d* shown in the fourth row.

In Step 4, we input a cell array where each row contains indices of observable transitions with the same label for the fault pattern net. Note that the cell array size of the fault pattern net equals to that of the labeled Petri net. Here, both t_3' and t_4' in the fault pattern net associate with event *d* shown in the fourth row, but no transition associates with events *a*, *b*, and *c*, thus the first row to the third row are empty.

In Step 5, we input the synchronization function that contains four pairs namely (t_3, N_1), (t_3,N_2), (t_9,N_1), and (t_9,N_2).

In Step 6, we input the index of the fault place p_3 in the fault pattern net.

Finally, we use the function mainFP to verify fault pattern predictability.

The output A represents the fault pattern predictor graph, the output M represents the set of basis markings in the fault pattern predictor graph, and the binary output tf indicates whether the labeled Petri net is fault pattern predictable. Here, tf equals to 0 means that the labeled Petri net is not fault pattern predictable.