

Multi Simulation

The number of systems (two or more systems) that combine two or more subsystems has increased making to a large scale and complicating the embedded system. The multi simulation environment by two or more systems was maintained in ZIPC V10.

Past problem

The simulator that was able to be started at the same time in current ZIPC was one. Therefore, the simulation of the large system that composed of the opposing examination and two or more systems of the communication protocol was assumed to be a problem.

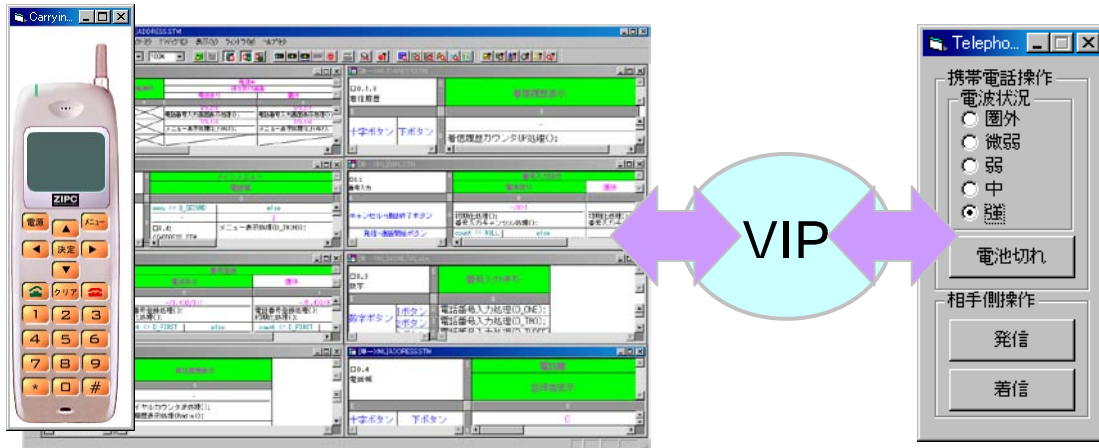


Fig1 Example of composing single simulation of the past

Solution

It corresponded to the simulation facility of two or more systems in ZIPC V10 to solve the above-mentioned problem.

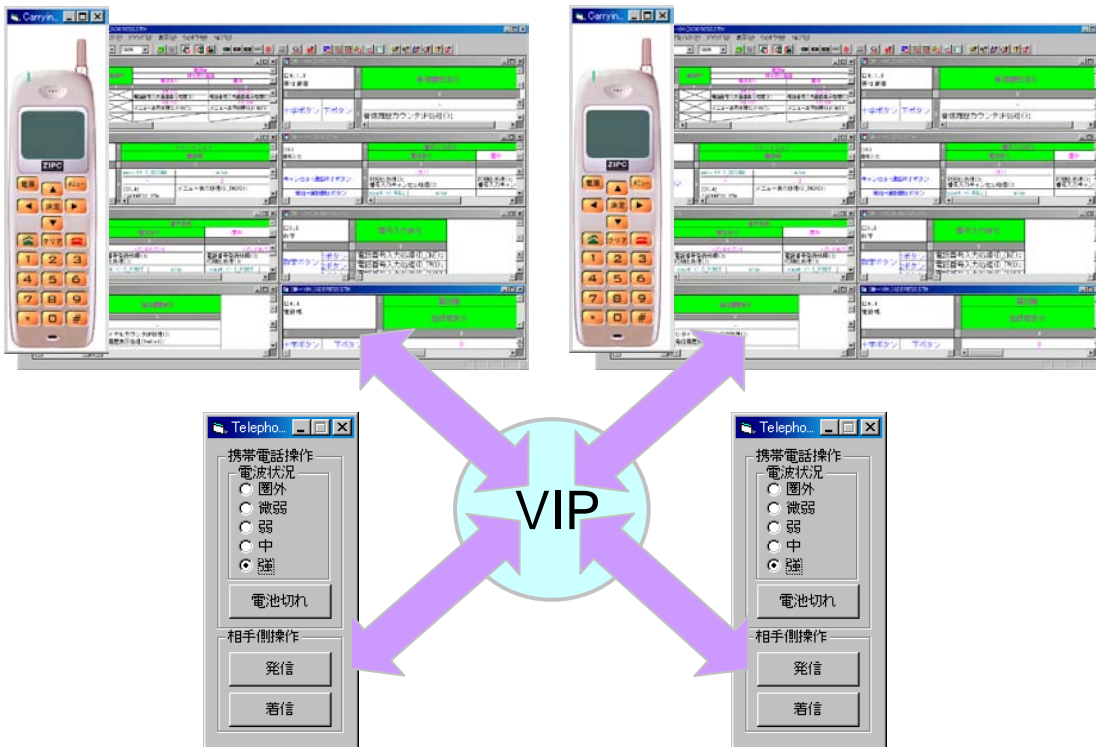


Fig2 Example of composing multi simulation of ZIPC V10

Multi system simulation environment making procedure

① Design each system

Each system originally design bases on the state transition matrix.

② Define interface between systems

VIP of two or more systems is set. The point here is to bring I/F definition information on two or more systems together in one setting. Moreover, a peculiar process ID to each system is allocated.



Fig3 VIP setting of multi simulation

③ Making External Diagram

The event can be sent to a specific system by specifying previous process ID though the externals diagram is similarly made as before. Or, it is possible to send it to all systems as a common event without specifying process ID.

④ Start of multi system simulation environment

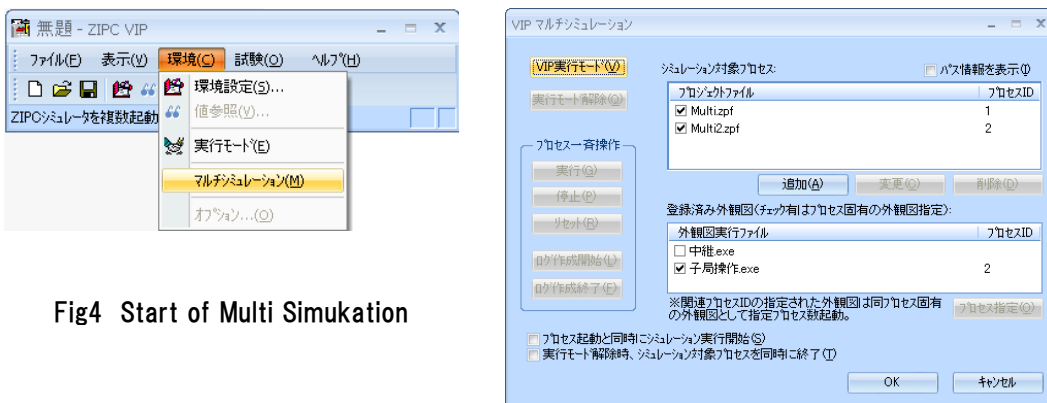


Fig4 Start of Multi Simulation

In the multi system simulation, VIP tool is started alone.

Next, information (.VIP) from the environmental setting between systems that set it according to procedure 2 is imported. The preparation is OK by this.

The multi simulation is selected from the menu at the end, and the multi system simulation begins by pressing VIP execution mode button.