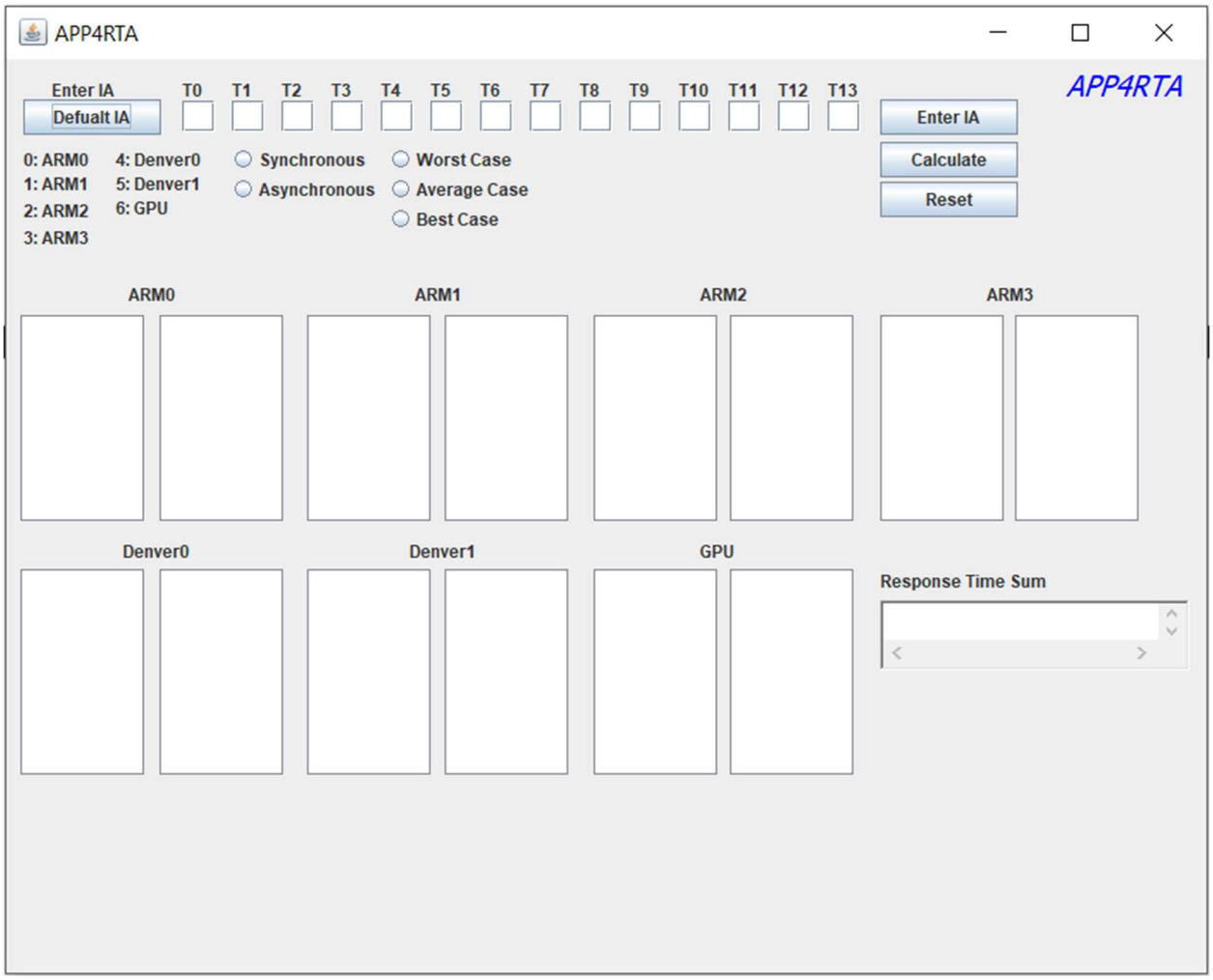
APP4RTA – version 1.0

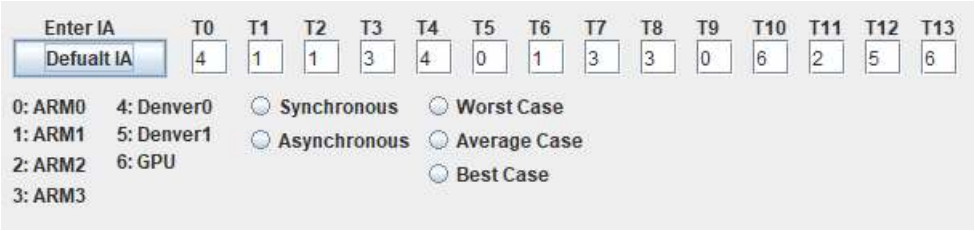


Before executing the code, please install the Java GUI software.

- To install Java GUI softwares:
  'Help' -> 'Install New Software' -> Work with: Eclipse Repository - http://download.eclipse.org/releases/oxygen -> 'General Purpose Tools' -> all click from 'Swing Designer' to 'WindowBuilder XML Core (requires Eclipse WTP/WST)' -> 'Next' -> 'Next' -> 'accept' -> 'Finish'

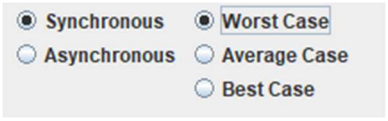
1. 'Default IA' Button

When the button is clicked, the JTextFields from T0 to T13 would be filled according to the default integer array, `{ 4, 1, 1, 3, 4, 0, 1, 3, 3, 0, 6, 2, 5, 6 }` which is predefined in CpuRTA class.

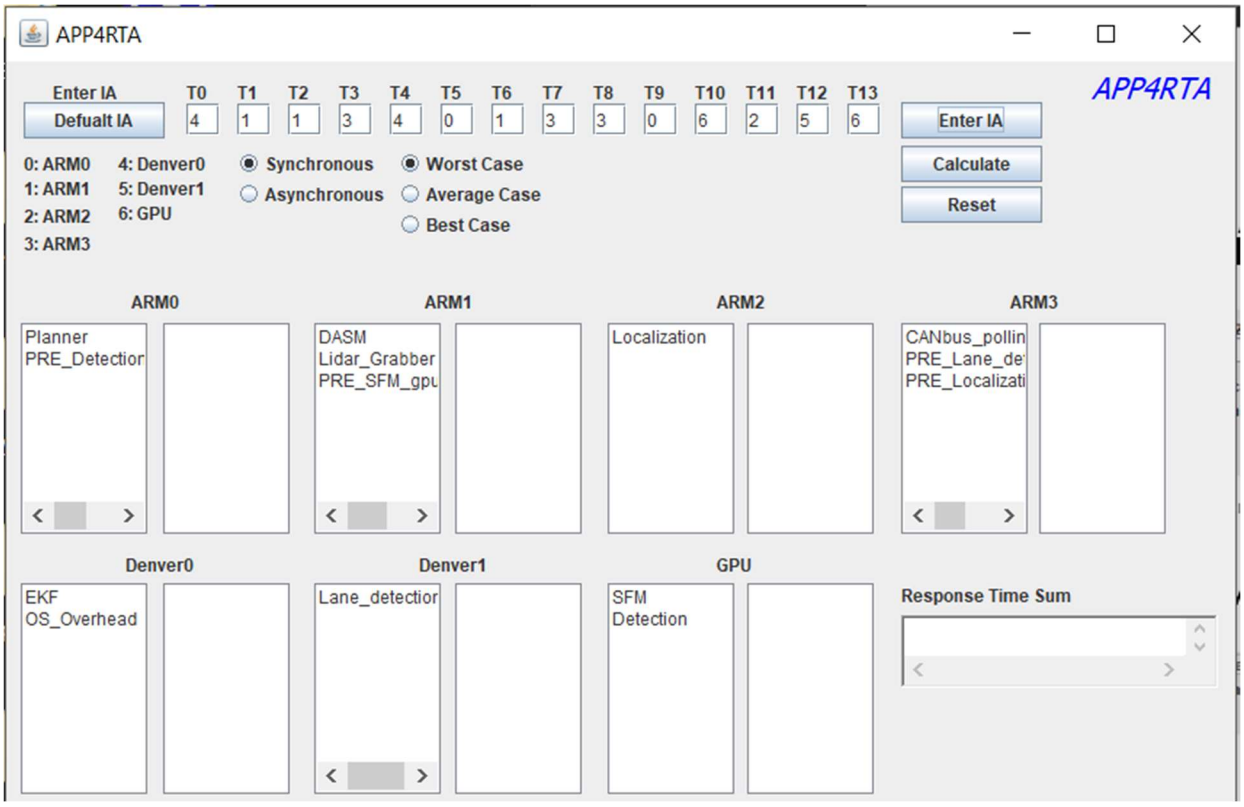


Or one can manually type in a number between 0 to 6 to each and every JTextField.

2. Select a Transmission Type (Synchronous / Asynchronous) and a Execution Case(Worst Case / Average Case / Best Case)

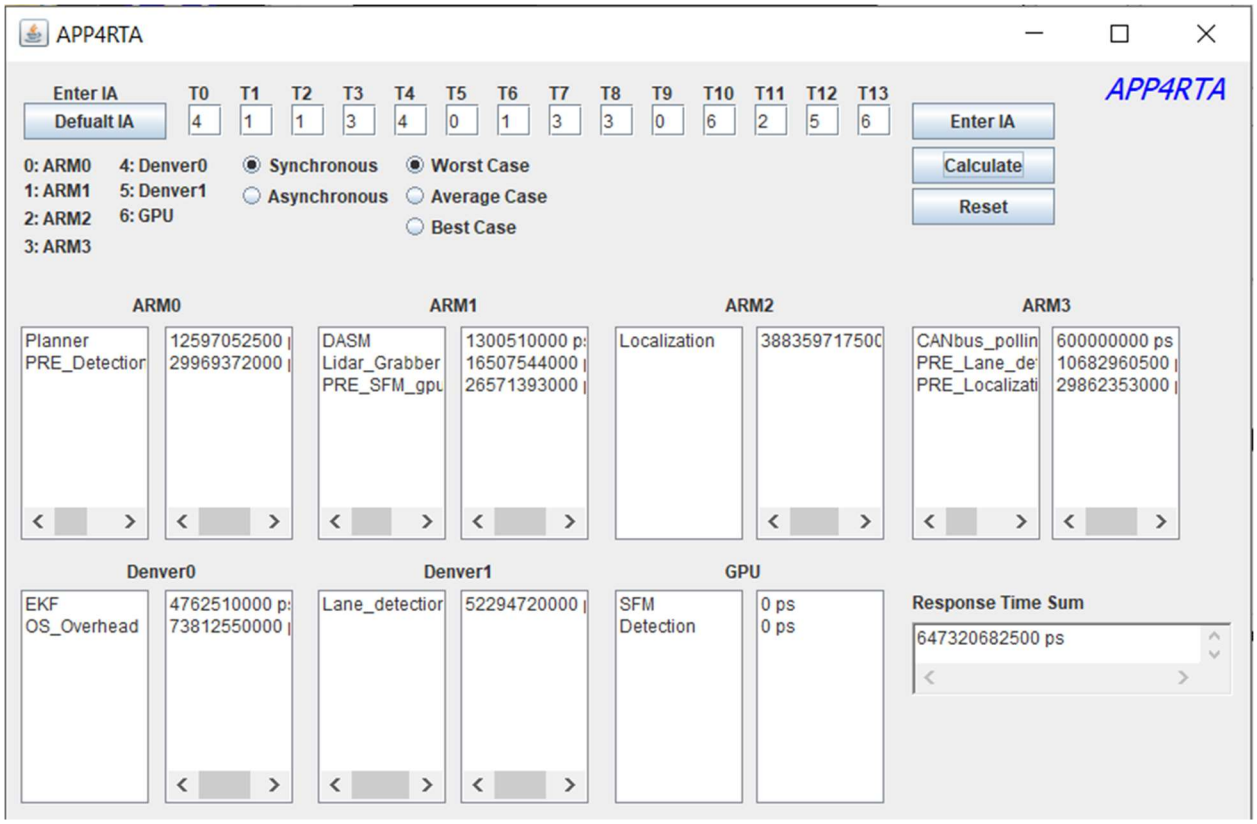


3. 'Enter IA' Button



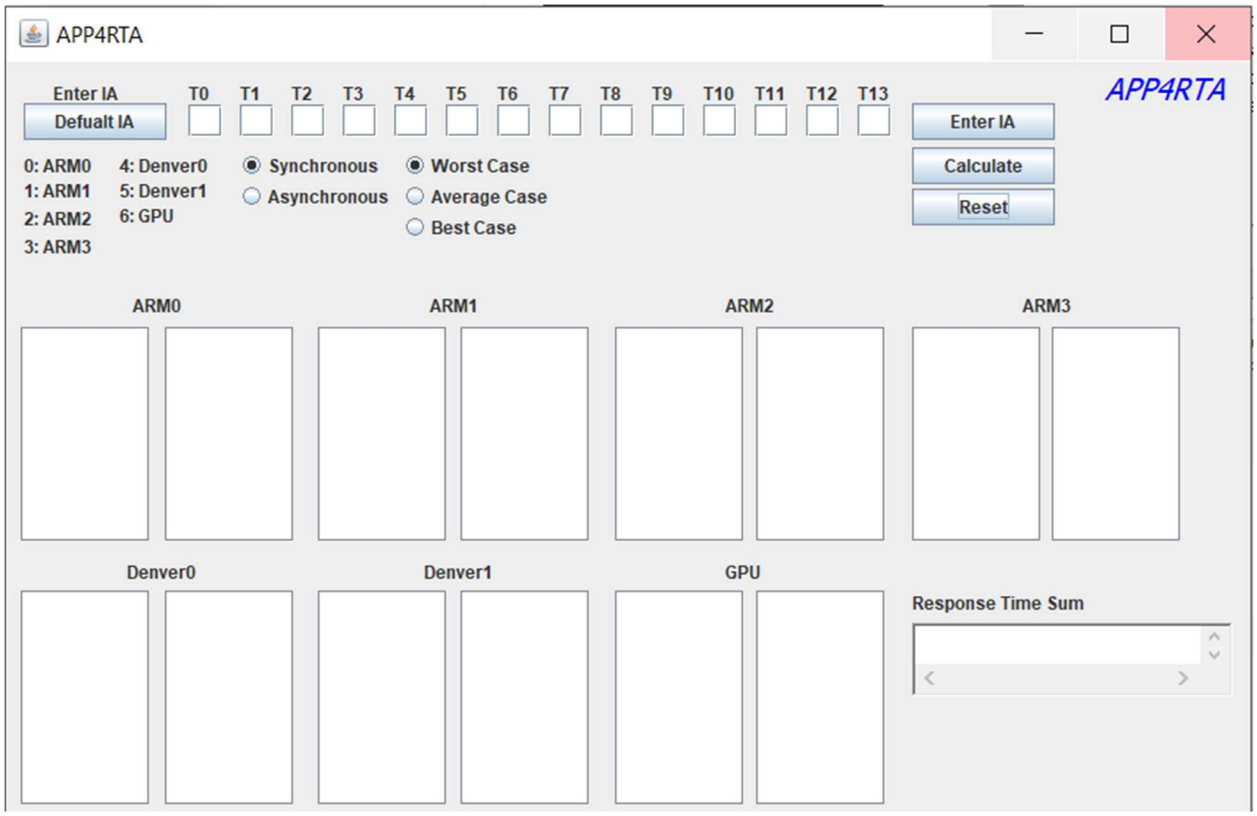
When the button is clicked, every task (T0 to T13) would be mapped to a Processing Unit according to the assigned number and appear on the left list of every Processing Unit. Task Sorting would be automatically applied according to Rate Monotonic Scheduling, so the first task on the left list has the shortest period among the tasks on the same list.

4. 'Calculate' Button



When the button is clicked, a corresponding response time to every task would be calculated and appeared on the right list. The total sum of all tasks' response times would be also calculated and appeared on the TextArea at the bottom right. If one or more tasks are not schedulable then 'Non Schedulable!' message would appear in the TextArea.

5. ‘Reset’ Button



When the button is clicked, every list, JTextField and TextArea would be clear. One could do the test again with another integer array.

*** ‘GPU Task on CPU’ part has not been implemented yet, so when T10 – T13 Tasks are mapped to CPU, the result would be not accurate for now.**