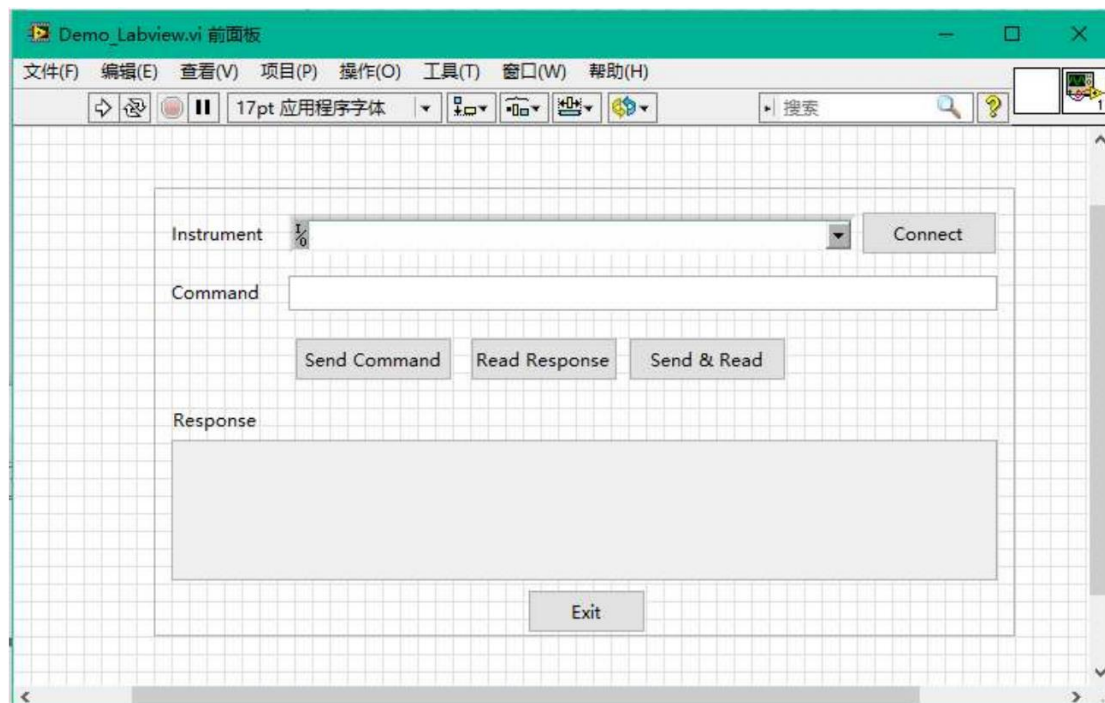


LabVIEW Programming Examples

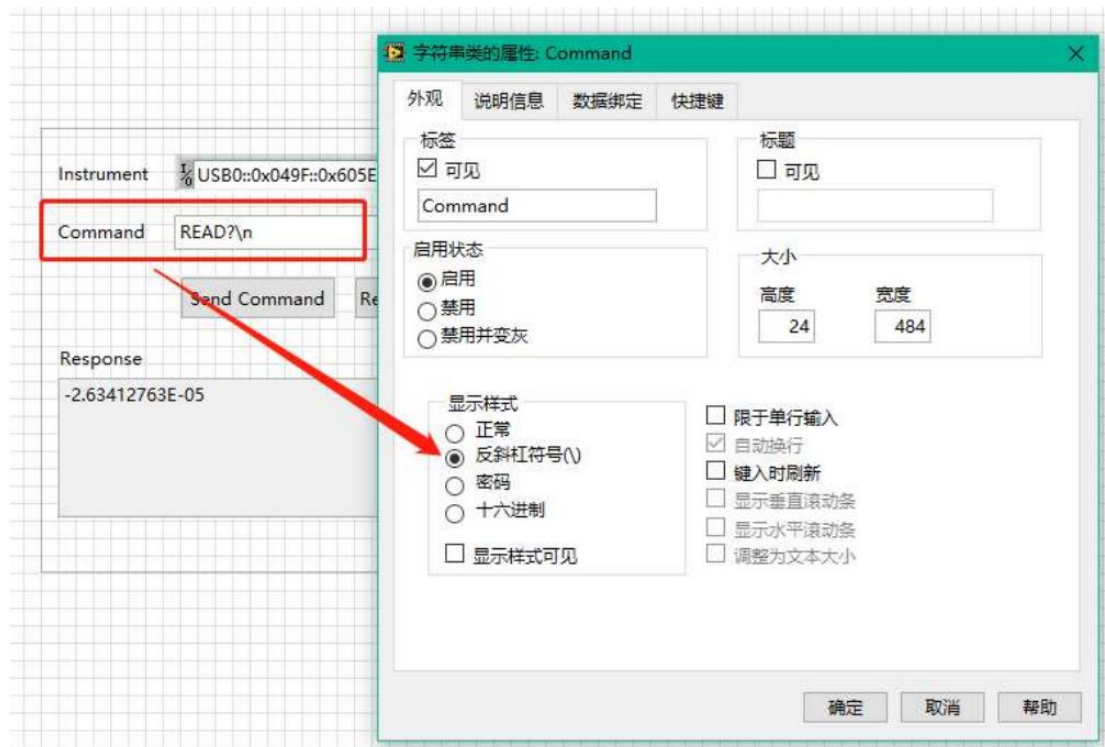
Program used in this example: LabVIEW 2012

The functions implemented in this example: find the address of the instrument, connect the instrument, send the command and read the return value.

1. Run LabVIEW 2012 and create a new VI file named Demo_Labview.
2. Add controls on the front panel interface, including the address bar, command bar and return value bar, as well as connect, write, read and exit buttons.



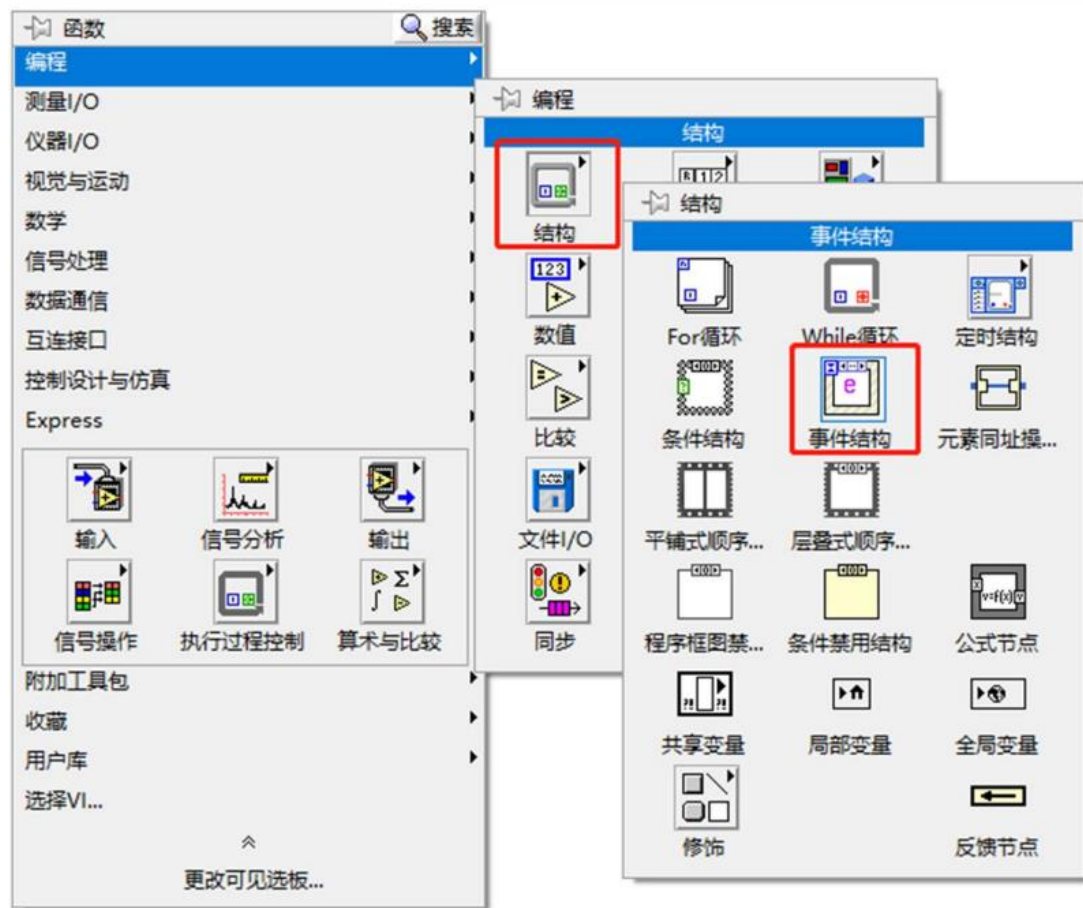
Note that the Command text box needs to select "Backslash Symbol":



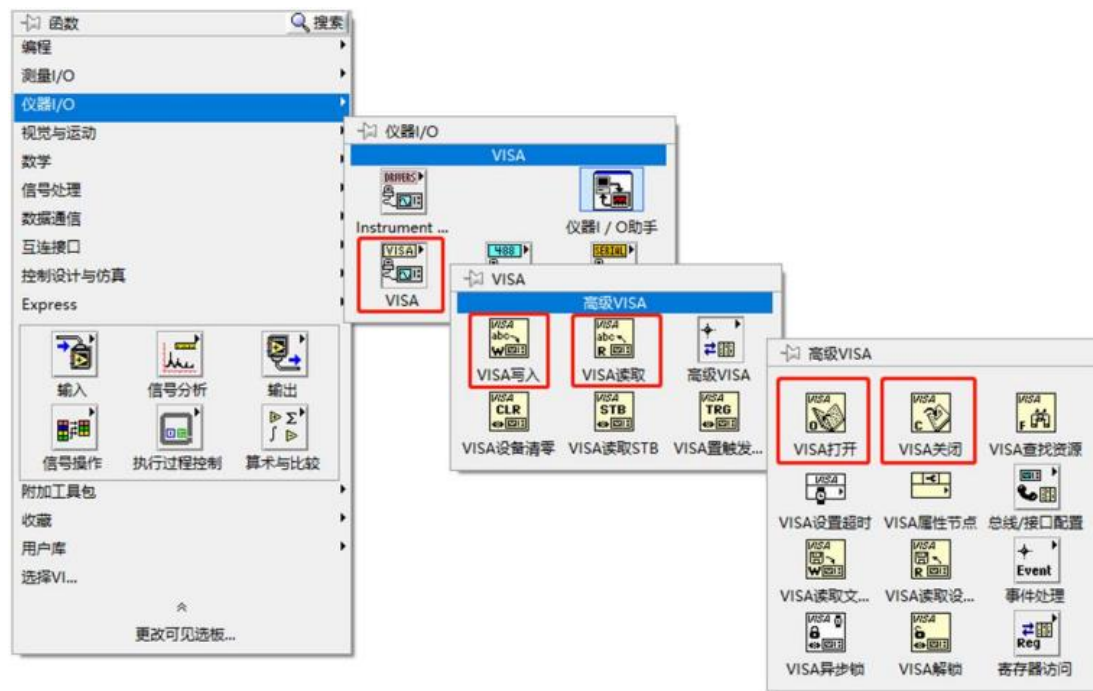
3. Click Show Block Diagram under the Window menu.



4. Right-click an empty space on the Block Diagram to create an Event Structure.

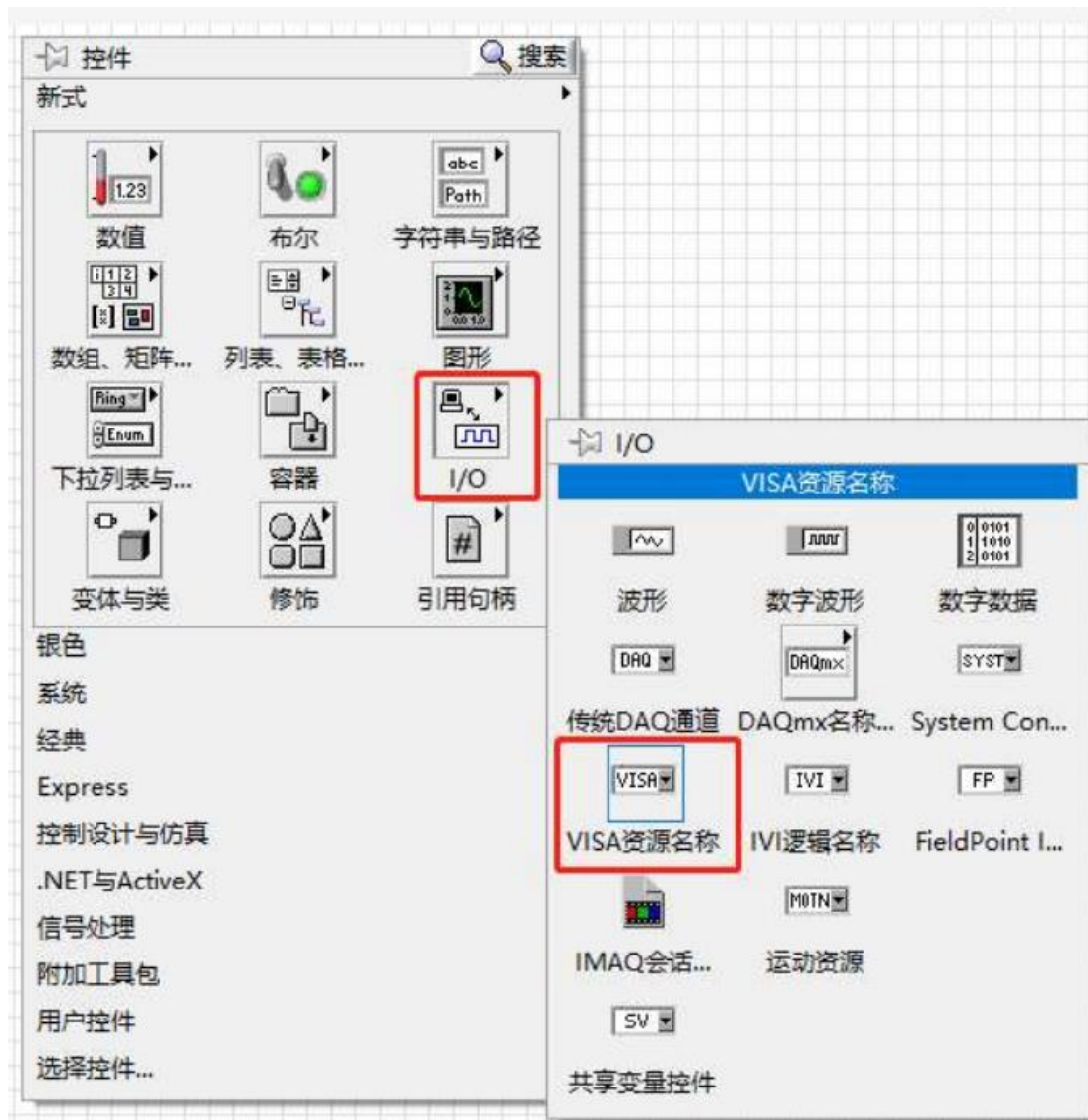


5. Add events including connect instrument, write operation, read operation, read and write operation, and exit. Click the right mouse button in the blank space of "Block Diagram", add VISA open, VISA write, VISA read, VISA close.

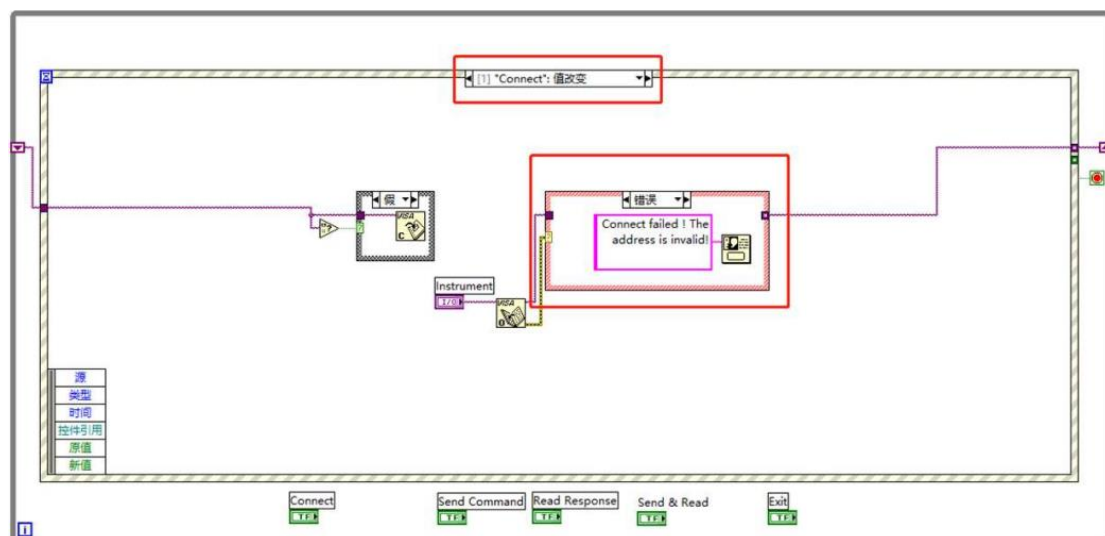


(1) Connect the instrument:

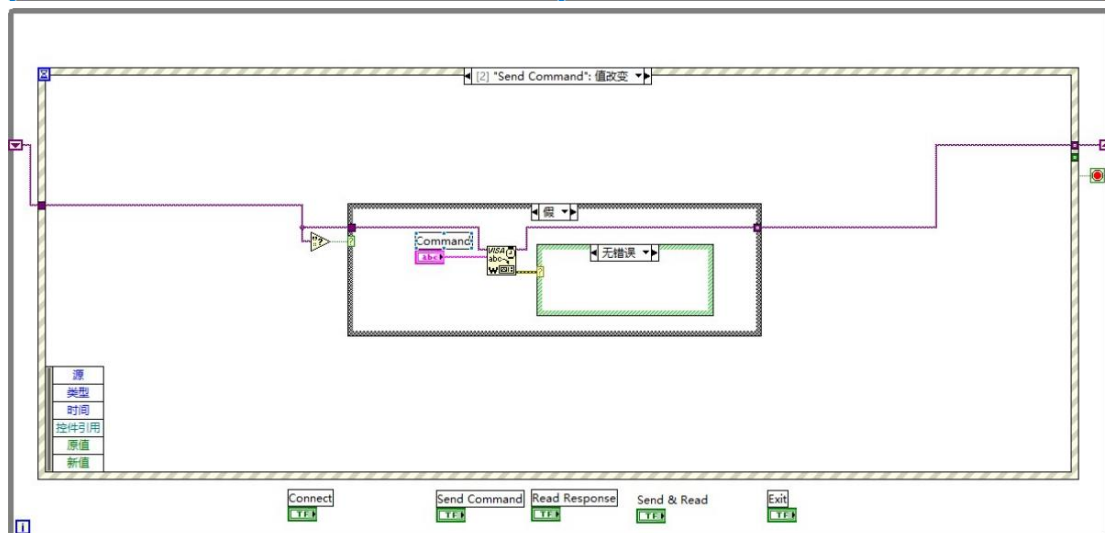
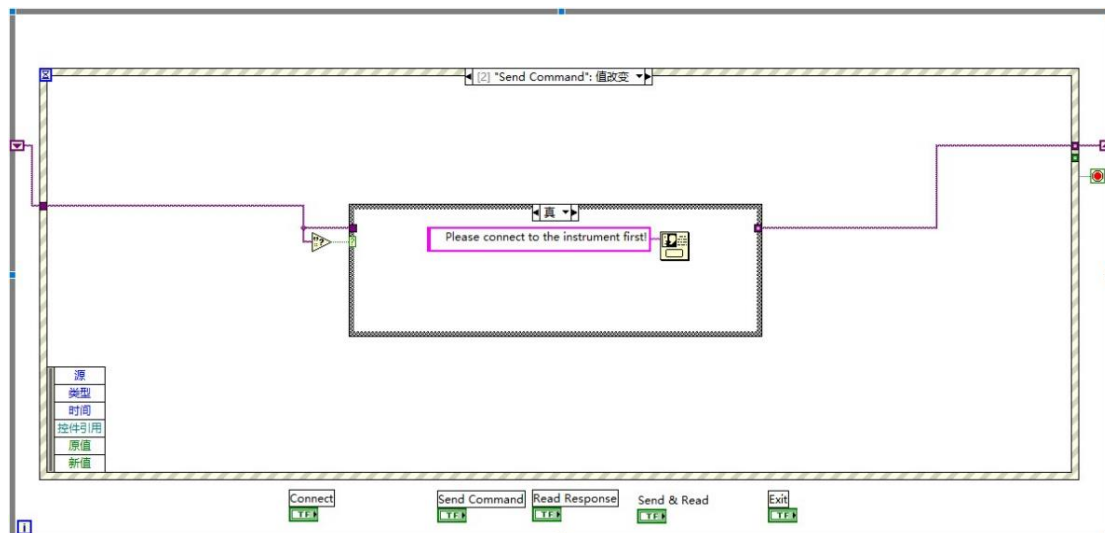
(1.1) Right-click on the blank space of the "Front Panel" and add the VISA resource name:



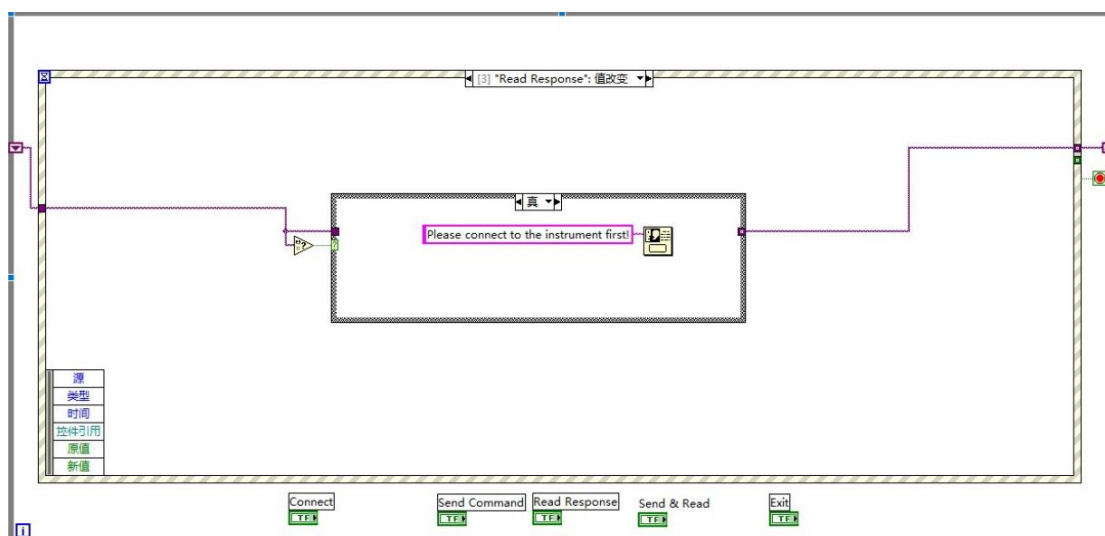
(1.2) Add connection event:

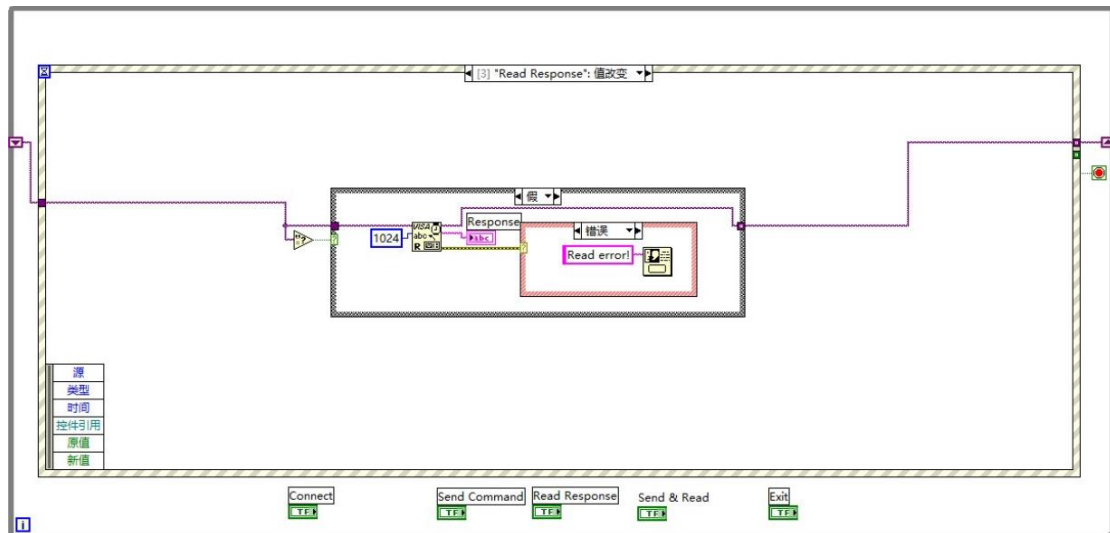


(2) Write operation:

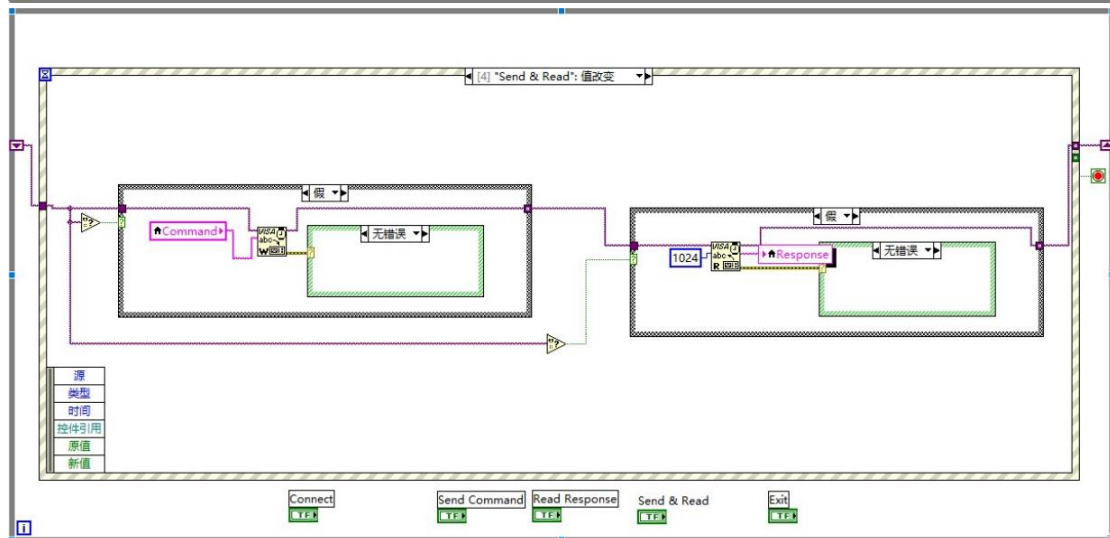
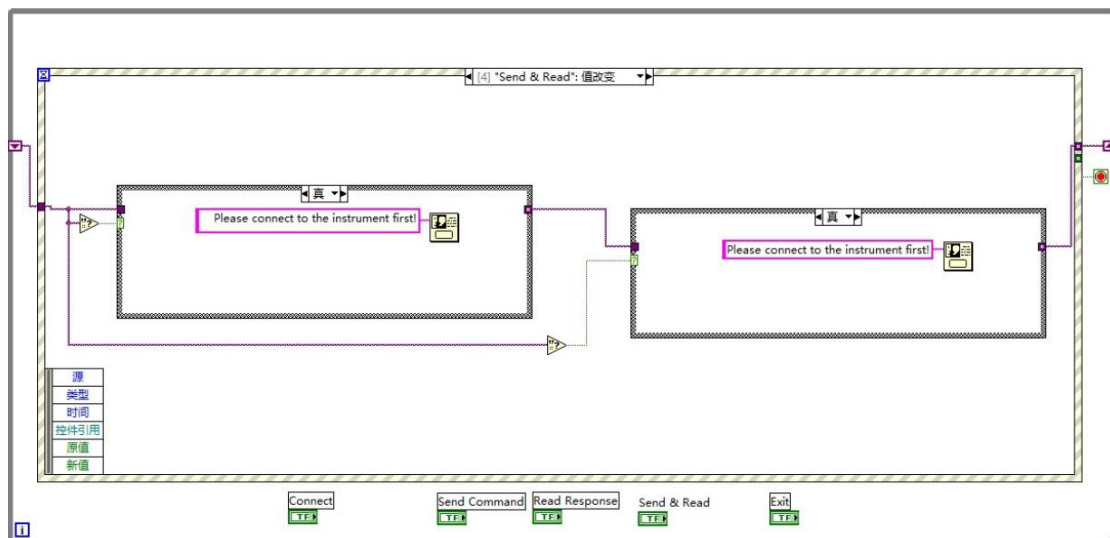


(3) Read operation:

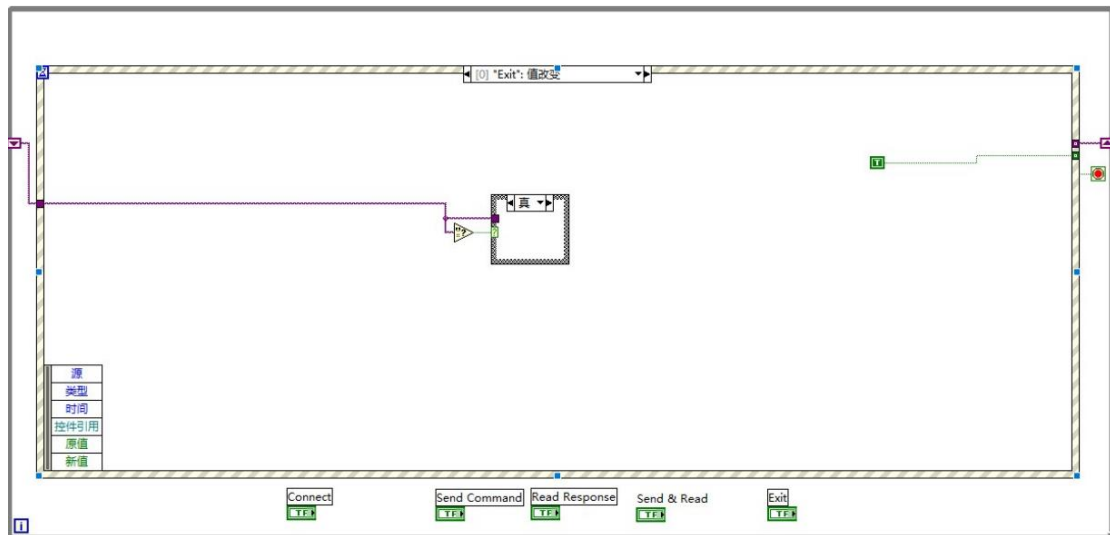




(4) Read and write operations:



(5) Exit:



6. Run the program, and the interface as shown below will appear.

Click the "Instrument" drop-down box to select the VISA resource name, click the "Connect" button to connect the instrument, enter the command in the "Command" text box, and click the "Send Command" button to write to the instrument. If it is a query command, click the "Read Response" button or the "Send & Read" button, and the "Response" text box will display the return value.

The screenshot shows the instrument interface with the following details:

- Instrument:** A dropdown menu showing 'USB0::0x049F::0x605E::CN123456789::INSTR'.
- Connect:** A button to connect the instrument.
- Command:** A text box containing 'READ?\n'.
- Buttons:** 'Send Command', 'Read Response', and 'Send & Read' (highlighted with a blue border).
- Response:** A text box displaying '-2.63412763E-05'.
- Exit:** A button at the bottom to exit the program.