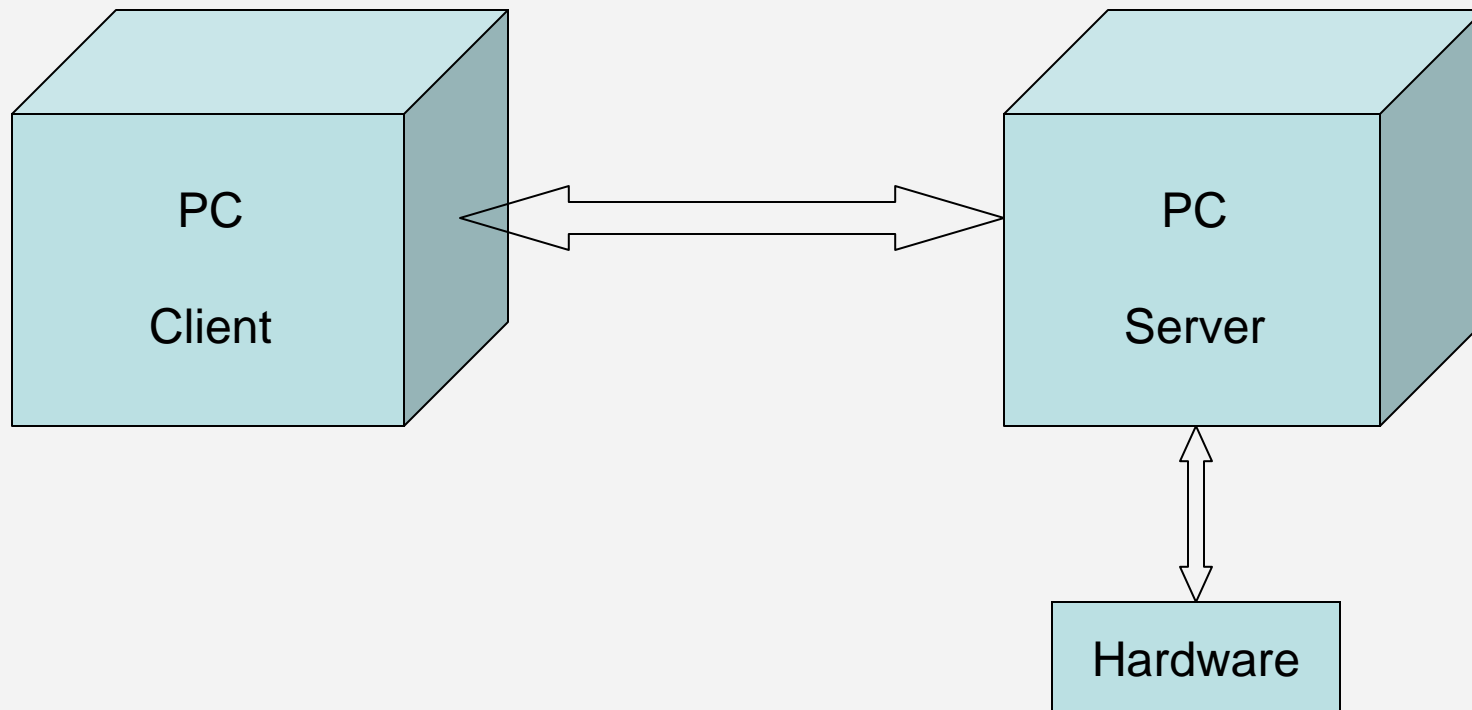


PVSS-SPECS Interface

(2005/MAY/03)

PVSS-SPECS Interface

SYSTEM ARCHITECTURE



PVSS-SPECS Interface

CLIENT (I²C)

Vision_1: SPECS Client

I²C | JTAG | PARALLEL BUS | REGISTER | DCU | ADVANCED

Parameters

SPECS:

Master ID:

Slave address:

I²C bus:

I²C address:

I²C sub address:

Size (bytes):

Data in:

Data out:

Status:

Commands

Registering

Registers: ...

Refresh: (seconds)

SPECS Client is running.

PVSS-SPECS Interface

CLIENT (I²C)

Vision_1: SPECS Client

PC JTAG PARALLEL BUS REGISTER DCU ADVANCED

Parameters

SPECS:

Master ID:

Slave address:

PC bus:

PC address:

PC sub address:

Size (bytes):

Data in:

Data out:

Status:

Commands

Registering

Registers:


Refresh: (seconds)

SPECS Client is running.

Registers Config

Registers

Info

 Create 'mySecondRegister' register with the following parameters:

SPECS:

Master ID:

Slave address:

PC bus:

PC address:

Size (bytes):

PVSS-SPECS Interface

CLIENT (JTAG, PBUS & REGISTER)

The image displays three overlapping screenshots of the PVSS-SPECS Client software interface, demonstrating different operational modes: JTAG, PARALLEL BUS, and REGISTER.

Top Window (Vision_1: SPECS Client): Shows the JTAG tab selected. The Parameters section includes:

- SPECS: pclbcecs03
- Master ID: 13 (PCI: 4 PORT: 1)
- Slave address: 1
- JTAG bus: 0
- Size (bits): 16
- Data in: 0102
- Data out: 0102
- Status: OK (IR Scan)

Middle Window (QuickTest_ : SPECS Client): Shows the PARALLEL BUS tab selected. The Parameters section includes:

- SPECS: pclbcecs03
- Master ID: 13 (PCI: 4 PORT: 1)
- Slave address: 1
- PBUS address: 0x40
- Size (words): 1
- Data in: 4142
- Data out: 4142
- Status: OK (Write/Read)

Bottom Window (QuickTest_ : SPECS Client): Shows the REGISTER tab selected. The Parameters section includes:

- SPECS: pclbcecs03
- Master ID: 13 (PCI: 4 PORT: 1)
- Slave address: 1
- REG address: 2
- Data in: 1011
- Data out: 1011
- Status: OK (Write/Read)

The REGISTER tab also features a Commands section with buttons for Init/Reset, Write, Read, and Write/Read, and a Registering section with a Registers dropdown (set to (Don't regist)), a Refresh spinner (set to 0), and a Start button.

Each window has a green status bar at the bottom indicating "SPECS Client is running." and a Close button at the bottom right.

PVSS-SPECS Interface

CLIENT (DCU)

The screenshot displays the 'QuickTest : SPECS Client' window with the 'DCU' tab selected. The interface is divided into several sections:

- Parameters:** SPECS (pclbcecs03), Master ID (13 (PCI: 4 PORT: 1)), Slave address (1), DCU address (0x0), and Status.
- Commands:** DCU Reset, Initialize, Set LIR Mode, Set HIR Mode, and Read Mode.
- Register Access:** Registers (CREG), Data in, and Data out fields with Write and Read buttons.
- Data Acquisition:** Channels (IA7 (Temperature)), Value (0), Refresh (10 seconds), and a checked 'Plot acquired value' option. A 'Start' button is located at the bottom of this section.

A secondary window titled 'SPECS Plot (DCU)' is overlaid on the right, showing a line graph for 'IA7'. The y-axis ranges from 0 to 80, and the x-axis shows time from 4:05:50 PM to 4:08:20 PM. The plot shows a fluctuating red line. Below the plot are 'Parameters' for the plot: Line (Red), Background (White), and a checked 'Show Grid' option. A 'Close' button is at the bottom right of the plot window.

A green status bar at the bottom of the main window reads 'SPECS Client is running.' A 'Close' button is located at the bottom right of the main window.

An arrow points from the 'Start' button in the 'Data Acquisition' section to the 'SPECS Plot (DCU)' window, indicating that starting data acquisition triggers the plot.

PVSS-SPECS Interface

CLIENT (ADVANCED)

The screenshot displays the 'QuickTest : SPECS Client' application window. The 'ADVANCED' tab is selected, showing a 'Parameters' section with a 'Scripts' dropdown menu set to 'myScript' and a 'Commands' section with 'Execute' and 'Edit' buttons. An arrow points from the 'Edit' button to the 'Script-Editor' window. The 'Script-Editor' window contains the following code:

```
main()
{
    // vars used in the script
    dyn_string specsList;
    dyn_char dataIn;
    dyn_char dataOut;

    // get list of SPECS Server running in the moment
    fwSpecs_getSpecs(specsList);

    // read 3 CHARs from I2C
    fwSpecs_I2CRead(specsList[i], 1, 1, 0, "0x40", 3, dataIn);

    // delay half a second
    delay(0. 500);

    // shift the 3 char readed from I2C into JTAG
    fwSpecs_JTAGIRScan(specsList[i], 1, 1, 0, 24, dataIn, dataOut);
}
```

At the bottom of the client window, a green status bar displays the text: **SPECS Client is running.**

PVSS-SPECS Interface

NEAR FUTURE

- Improvement of DCU plotting
- Improvement of fwSpecs Library documentation
- Implementation of concurrency management
- Satisfaction of user's needs

PVSS-SPECS Interface

WEBSITE

- <https://test-interfaces.web.cern.ch/test-interfaces/>

