

The aim of this test bench is to validate electronic measurements and audio signals. The system must be enough flexible to permit the test of several models of car radio.



## Hardware Technology

The bench is composed of

- an industrial PC with:
  - a test sequencer, its measurement libraries and instruments drivers
  - a [VAN](#) bus PCI card
  - a bar code reader .
  
- a conversion [RS-232](#) / [I2C](#) module
- an audio AM/FM generator [GPIB](#)
- an audio analyser [GPIB](#)
- a [PXI](#) chassis containing:
  - a [MXI](#) 3 card
  - a [DIO](#) card
  - two switches matrix cards
  - a multimeter card
  - a [GPIB](#) card

## Software Technology

Operating software : MS Windows XP

Measurement software : NI [LabWindows/CVI](#)

Test Sequencer : NI [TestStand](#)

Reports : MS Excel

### How does it work ?

The operator connects the car radio to the interface which is connected to the test bench. He identifies the unit to be tested with the car radio bar code. The sequence test the sound quality, the consumption, the EEPROM software and the radio reception. At the end of the tests, a Excel formatted report is generated.

The modular material and software architecture allows the component generisation and thus a change robustness gain.