ITA/ITZ (Instrument Test Analysis) Software Features

Applications:

- Independent QA/QC analysis of Daily and Monthly instrument tests
- Seismic Source testing and analysis.
- Graphical display of test results from large channel systems
- PC based SEGD to SEGY conversion for small datasets.

Key Features:

ITA/ITZ contains most of the functions and utilities required for the QA/QC of Seismic recording system Instrument and source tests from a wide range of recording systems. The system includes the following features: -

- Runs as full 32 bit application on Windows 2000, XP, Vista, Win7 (32&64)
- Use as a portable Field QA tool or Office based QC processing.
- Built in Specifications for most available recording systems allows ease of use without detailed knowledge of the underlying test principles allowing 'Point and Shoot' usage. Specifications are updated as new systems become available.
- 'New System' option allows specifications for a new or unknown system to be manually input.
- Uses the SEG recommended test algorithms and additional manufacturer specified methods. The majority of the applied mathematical routines are those detailed in the SEG guidelines for instrument characteristics (Digital Seismic Recorder specification standards by SEG Subcommittee on digital seismic recorder specifications, Geophysics, 53, number 03, 1988), together with additional analysis routines using Fast or Discrete Fourier Transforms. These additional analysis capabilities have been added to cope with specific test sequences used by equipment manufacturers, and to provide response plots from normal field data.
- All standard daily and monthly tests included along with manufacturer specific variations.
    - EIN Instrument Noise/ DC Offset
    - DRD Dynamic Range Determination
    - Harmonic Distortion
    - Gain Accuracy/Gain and Phase
    - Cross-feed
    - Common Mode Rejection
    - Impulse Test/Filter Pulse Test
    - Additional non standard tests for Timing, Clock Accuracy, Leakage, Time break tests etc.
    - Summary results in Graphical format and CSV summary files for import into Excel.
    - Vibrator performance test and analysis function. Wire line testing.
    - Marine SEGD external header extraction of Gun Timing information.
- Data input from SEGD or SEGY from tape or File. Handles problem and custom formats.
- SEGD Header decoding, detailed listing, inspection and documenting.
- SEGY output. Individual or merged files.
- SEGY split function to extract multiple shot files to individual SEGY'
- Allows batch setup for repeatability.
- Well documented, detailed user manual.

Recommended Minimum System Requirements:

PC:1 GHz Pentium desktop or notebook computer running Windows 2000/XP/Win7 32/64, with 40GB HDD, 1GB RAM, CDROM, suitable data exchange/transfer medium and internal or external storage for Project data. Suitable system specific SCSI hardware and ASPI software to allow access to tape or cartridge drive (optional - only needed if the user requires direct access to data tape drives).