TPG Software Programming System

Reduce program development and maintenance costs for GPIB/VXI, IFR M5200 and 5300 series testers.

■ Instrument drivers and macros
■ Reduced programming development costs
■ GPIB / VXI control software
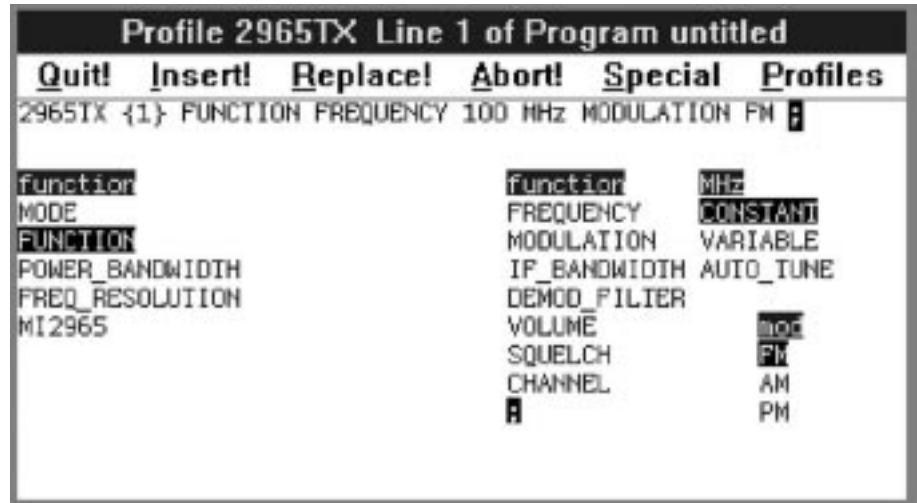■ Generates syntactically correct statements

Although normally used independently the 29XX series of radio test sets can be combined with a PC running the windows based TPG software to form a powerful system which can be programmed and controlled in a similar way to ATE.

IFR's TPG Software language consists of high-level, natural language statements. It is not ASCII-text based. Test programs are built up from 'profile' statements which consists of a series of options which go to build a complete statement. For example, the figure shows part of the 'IFR 2965' profile and a sample statement produced by it. Depending on the option chosen for one field, TPG presents the appropriate set of options for the next field.

Because TPG guides the programmer through the profile selections, TPG statements are always syntactically correct and there is no need to compile the test program. It also means that statements can be executed 'live'. This is a tremendous aid for program development and debugging because instrument set-ups can be tried out very quickly. Changes can be tried 'in-situ' without modifying the test program. If a larger change is required you can execute it immediately without having to wait for a compilation to finish.

One of the key advantages of TPG for use as a GPIB controller is that you can define your own profiles. User (or 'Macro')

profiles are easy to design and generally only take a few hours to make, from creation to working. The profile editor lets you set out the various selection options and define which selections lead into which others. You can write a 'mini' TPG program which is run every time a profile selection is executed. By using this facility you can create profiles for your own GPIB instruments, or simply customize the language. However you don't have to write all your own GPIB profiles. IFR maintains a library of instrument profiles. This contains profiles for the most popular IFR units and includes the 2945A and 2965A series test sets. The library also includes profiles for instruments from third party manufacturers which can be written on request.

TPG is written in C++ and runs on a PC under Windows. Minimum PC requirements are 386, 4 Mb, VGA, National Instruments PCIIA or PCMCIA GPIB cards.

Features

- Sets up the instruments repeatedly
- Profile based
- Natural language statements
- Generates syntactically correct statements
- No compilation required
- Profiles can be executed 'live'
- Profiles can be customized
- Language compatible with 5200 and 5300 series ATEs.

Benefits

- Accurate instrument set-up
- Consistent instrument set-up
- Less time wasted generating test programs
- Test programs are easily understandable
- No time wasted debugging syntax errors
- No time wasted compiling
- Quick test program debugging
- New instruments can be easily added
- Easily upgraded to the 5200 and 5300 series ATEs.
- Reduced program development and maintenance costs

Applications Software - Radio Testing

Two radio applications software programs using TPG are available for testing radios using the 2965A and 2966A radio test sets. The first, RADIO65, tests PMR radios. The software provides an on-screen configuration menu which allows the test limits and parameters to be fully (and simply) programmed by the user. (This facility can be password protected). The second, GSM66, tests both analog and digital cellular radios. This supports TACS and GSM protocols. The two applications also provide links to IFR's *i*-Base Information Management Software for full results analysis and archiving.

Features

- Allows radios to be tested using low skilled operators
- Supports PMR and cellular radios
- Sets up the instruments repeatably
- Easily configured for different radio types
- Results optionally logged to *i*-Base Information Management System

Benefits

- Reduced running costs
- Accurate instrument set up
- Consistent instrument set up
- Automatic results gathering

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