Digital Function Generator (DFG)

, **Short description and software features :**

The Digital Function Generator (DFG) software has been developed under NeXTSTEP Release 3.2.It runs under system 2.0 and 3.2 on all types and configurations of NeXTSTEP computers. The DFG/NeXT combination is a powerful tool for generating arbitrary, stereo 16-bit sounds of arbitrary complexity and ultimate quality.

DFG consists of 5 modules. The **Principles of Digital Audio** module allows synthesis of pure tones and white noise and it can be used to illustrate concepts of signal amplitude, frequency, phase, interference, coherence, incoherence, signal ramping, additive synthesis, beats, virtual pitch, quantization, dithering, aliasing/hard clipping/harmonic / intermodulation distortions, etc. The **Modulation** panel allows synthesis of Amplitude, Frequency or Amplitude and Frequency Modulated tones. The **Additive Synthesis** module allows synthesis of complex sounds from their Fourier components. The **Sweep Generator** module is for producing arbitrary amplitude, frequency or amplitude and frequency sweeps. The **Function Generator** module can be used to synthesize sine, square, triangular, sawtooth, pulse and white noise signals.

Since DFG does not use DSP resources (Motorola 56001 chip) and since it uses only 2-3% of the CPU time, it can run simultaneously with such applications as the Digital Oscilloscope and Spectrum Analyzer (both applications come with NeXT). Therefore, the single DFG/NeXT combination can be used to perform sophisticated tests and experiments, since it can synthesize and analyze signals at the same time.

DFG is an ideal signal source for research and teaching in the fields of acoustics, psychoacoustics, physics, architecture, audiology, electronics, electroacoustics, vibration measurements and transducer testing. Academic discounts are available. A free demo version of this software can be provided.

, **Product availability :**   shipping now (Motorola and Intel)

, **Installation instructions :**   create subdirectory **DFG_Sounds** under your work directory.
copy **DFG_demo.app** file to Apps folder under your work directory.

, **Help :**   on-line help is provided in the application

, **Product ordering info :**   for more information about the **DFG_demo.app** software and how to order it please contact:

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