MOMENTUM DATA SYSTEMS

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QEDesign Lite

QEDesign Lite is an **easy to use** digital filter design package for Microsoft's **Windows 9x and NT**.
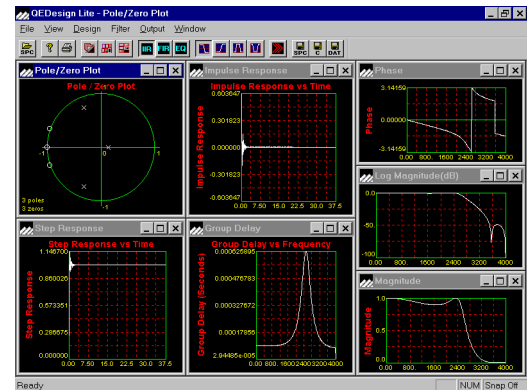
It designs **FIR and IIR** filters and is a simpler, cheaper version of the QEDesign 1000 package. Lowpass, highpass, bandpass and badnstop filters can be designed.

Window or Parks Mclellan (equiripple) filter design methods can be used, up to **128 coefficients**.

IIR filters are designed by the **bilinear** method, with **Butterworth**, **Bessel**, **Tschebyschev** or **Elliptic** prototypes.

QEDesign Lite designs **floating point** coefficients.

It has a built in **C code generator**.

QEDesign Lite is ideal for students, and engineers who want to design digital filters quickly without getting involved in the details of design or needing more advanced designs.
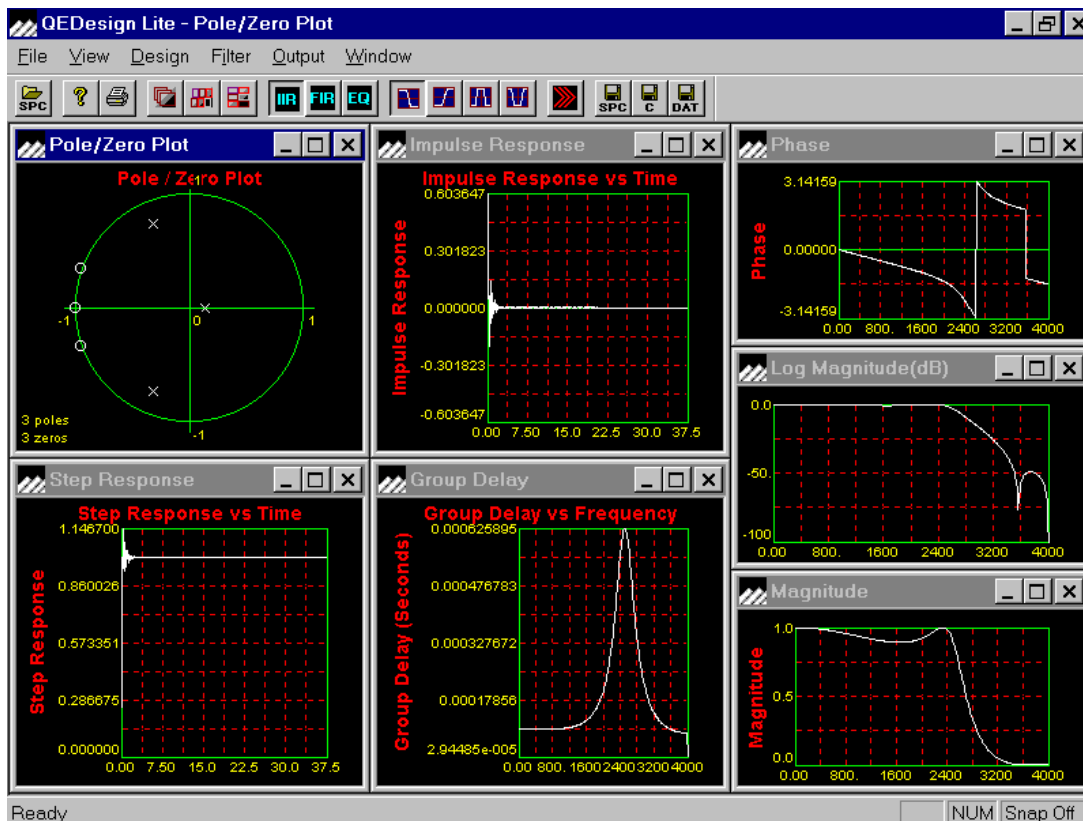
Features:
- FIR and IIR filter design
- cascade and parallel IIR forms
- window and equiripple FIR design
- floating point coefficients
- **C code generation**

A detailed **product booklet**, and **free demonstration** software, are available: send email to: qedesign_book@mds.com or phone (714) 378 5805.

Details and demo software are also available on line:

http://www.mds.com/software/qedlite.htm

QEDesign Lite data sheet

FIR filter design

QEDesign Lite supports FIR filter design by the **window** and **Parks McLellan** (equiripple) methods.
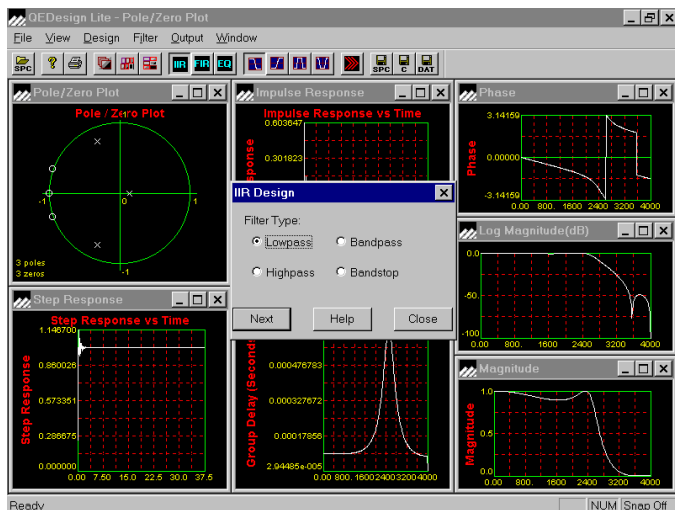
Many window functions are available.

Filters **up to 128 coefficients** can be designed.

Filter coefficients are designed for **floating point** format.

A **C code generator** is included.

The 'user interface' is **simplified** and limited, both to make the package simpler to use and to allow **reduced cost** compared with the fuller QEDesign 1000 software.

IIR filter design

QEDesign Lite supports IIR filter designs using the **bilinear** method, based on **Butterworth, Bessel, Tschbyschev and Elliptic** prototypes.

IIR filters can be **lowpass**, **highpass**, **bandpass** or **bandstop**.

Filter orders **up to 6** can be designed for lowpass and highpass: **up to 12** for bandpass and bandstop.

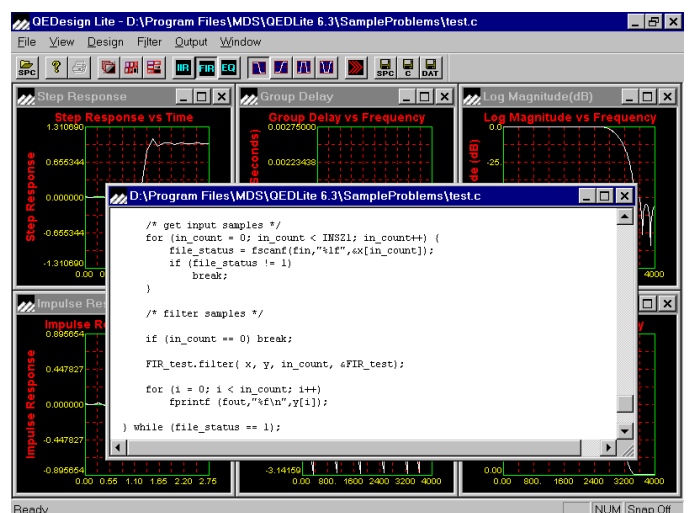Filter coefficients are produced in **floating point** format.

C code generation

QEDesign Lite has a built in **C code generator**.

The code generation is integrated and produces a complete C program, with clear separation into subroutines and coefficient files.

The code generation produces **easily readable code** that is **ready for integration** into the user's own programs.

The C code generation uses a program to write the code for the specific filter chosen, rather than simply linking pre-written general purpose code modules

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