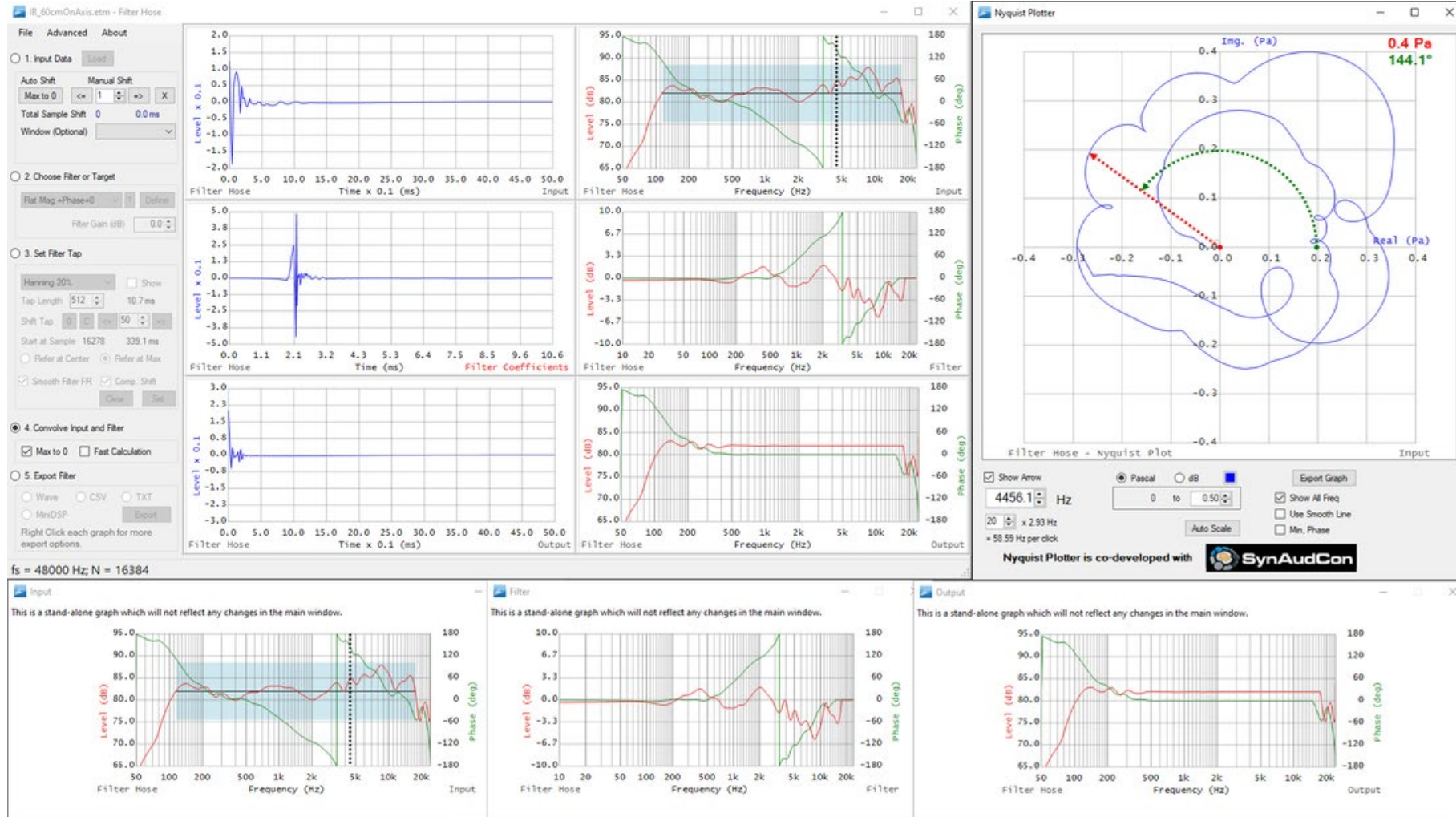


# Filter Hose

## Understanding the Graphical User Interface



# Understanding the Graphical User Interface

3way\_R\_IR.effr - Filter Hose

File Advanced About

1. Input Data

Auto Shift Manual Shift  
Max to 0 <- 1 -> X

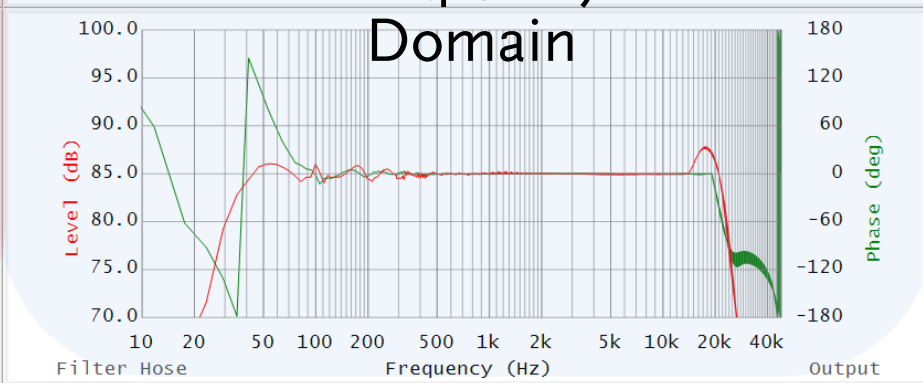
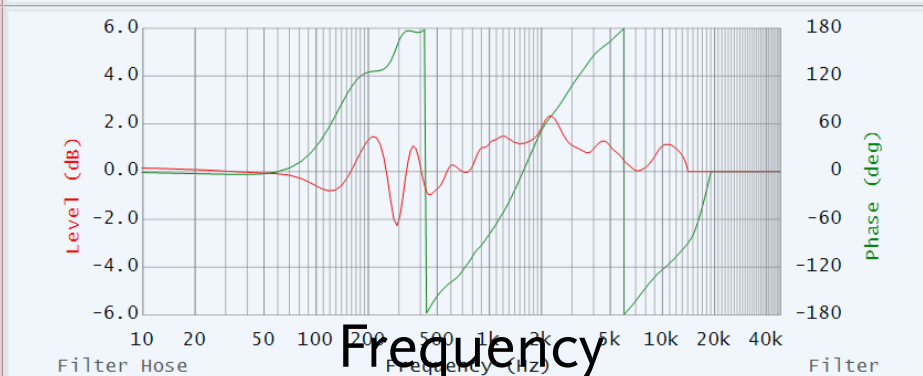
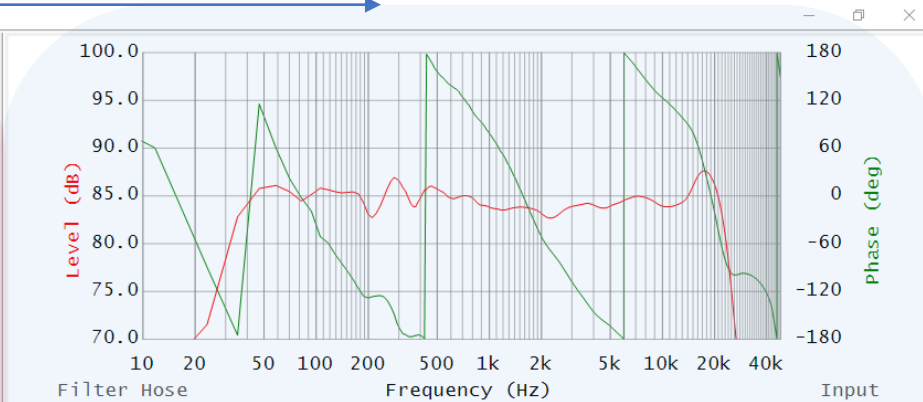
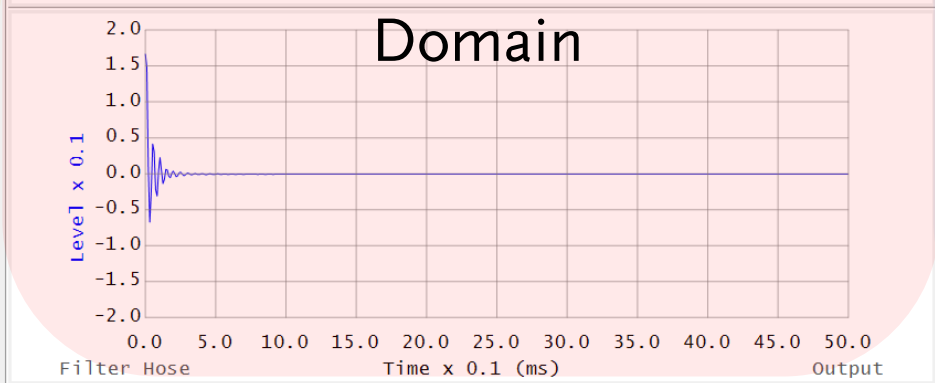
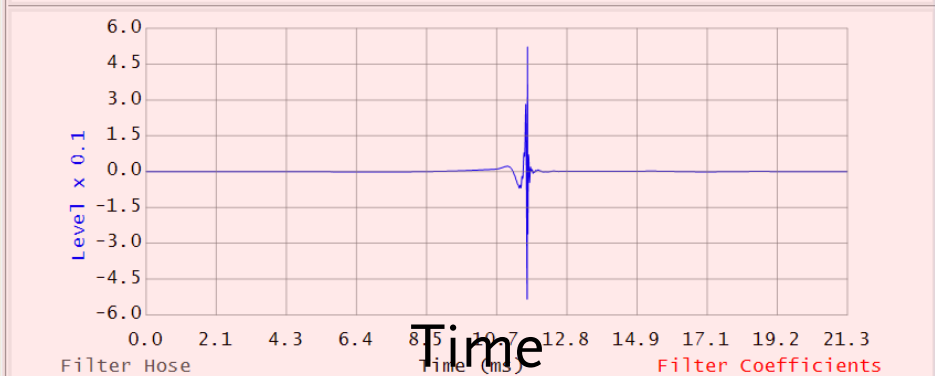
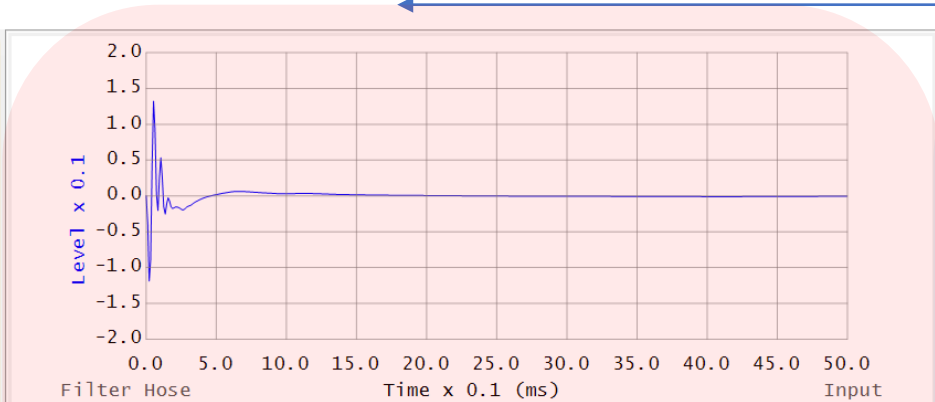
Total Sample Shift 1 0.0 ms  
Window (Optional)

2. Choose Filter or Target  
Flat Mag. +Phase=0 Define  
Filter Gain (dB) 0.0

3. Set Filter Tap  
Hanning 20% Show  
Tap Length 2048 21.3 ms  
Shift Tap 0 C 50 ->  
Start at Sample 7079 73.7 ms  
 Refer at Center  Refer at Max  
 Smooth Filter FR  Comp. Shift  
Clear Set

4. Convolve Input and Filter  
 Max to 0  Fast Calculation

5. Export Filter  
 Wave  CSV  TXT  
 MiniDSP Export  
Right Click each graph for more export options.



Control Panel

Time Domain

Frequency Domain

# Understanding the Graphical User Interface

The screenshot displays the 'Filter Hose' software interface, which is divided into several sections:

- Left Panel (Tool Sets):**
  - 1. Input Data:** Includes options for 'Auto Shift' and 'Manual Shift', 'Max to 0', and 'Total Sample Shift'.
  - 2. Choose Filter or Target:** Features a dropdown menu for filter types (e.g., 'Flat Mag.+Phase=0') and a 'Filter Gain (dB)' control.
  - 3. Set Filter Tap:** Includes a 'Hanning 20%' dropdown, 'Tap Length' (2048), 'Shift Tap' (50), and 'Start at Sample' (7079).
  - 4. Convolve Input and Filter:** Includes checkboxes for 'Max to 0' and 'Fast Calculation'.
  - 5. Export Filter:** Includes radio buttons for 'Wave', 'CSV', 'TXT', and 'MiniDSP', along with an 'Export' button.
- Top Row (Input Data):**
  - Left Graph:** 'Input' plot showing 'Level x 0.1' vs 'Time x 0.1 (ms)'. A blue waveform is visible.
  - Right Graph:** 'Input' plot showing 'Level (dB)' vs 'Frequency (Hz)'. It displays magnitude (red line) and phase (green line) responses.
- Middle Row (Filter Editing):**
  - Left Graph:** 'Filter Editing Tool Set' plot showing 'Level x 0.1' vs 'Time (ms)'. A blue waveform is visible.
  - Right Graph:** 'Filter Editing Tool Set' plot showing 'Level (dB)' vs 'Frequency (Hz)'. It displays magnitude (red line) and phase (green line) responses.
- Bottom Row (Output):**
  - Left Graph:** 'Output' plot showing 'Level x 0.1' vs 'Time x 0.1 (ms)'. A blue waveform is visible.
  - Right Graph:** 'Output' plot showing 'Level (dB)' vs 'Frequency (Hz)'. It displays magnitude (red line) and phase (green line) responses.

At the bottom left, status information reads: 'fs = 96000 Hz; N = 8192 Cursor: 1.4ms (Sample #=136), Level=-0.1378'.

Set of tools to edit transfer functions.

Divided into two locations:

1. Edit the Input
2. Edit the Filter

# Understanding the Graphical User Interface

3way\_R\_IR.epr - Filter Hose

File Advanced About

1. Input Data

Auto Shift Manual Shift  
Max to 0 <- 1 => X

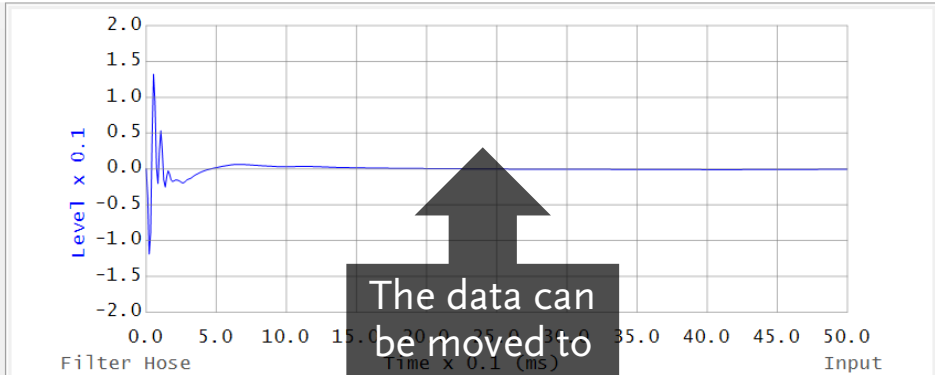
Total Sample Shift 1 0.0 ms  
Window (Optional)

2. Choose Filter or Target  
Flat Mag.+Phase=0 Define  
Filter Gain (dB) 0.0

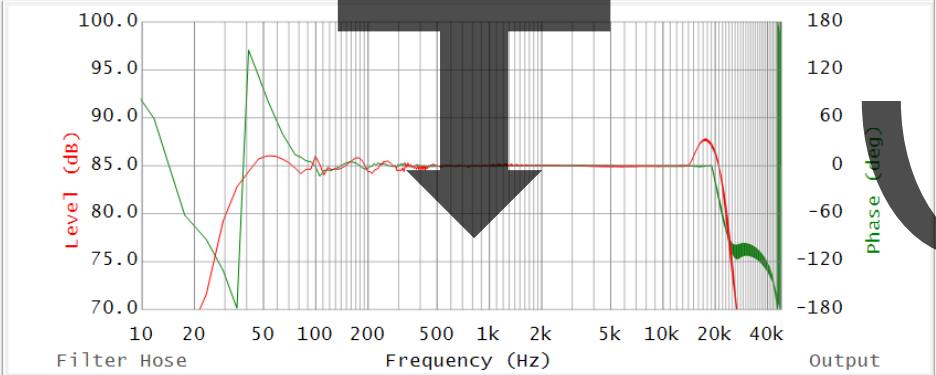
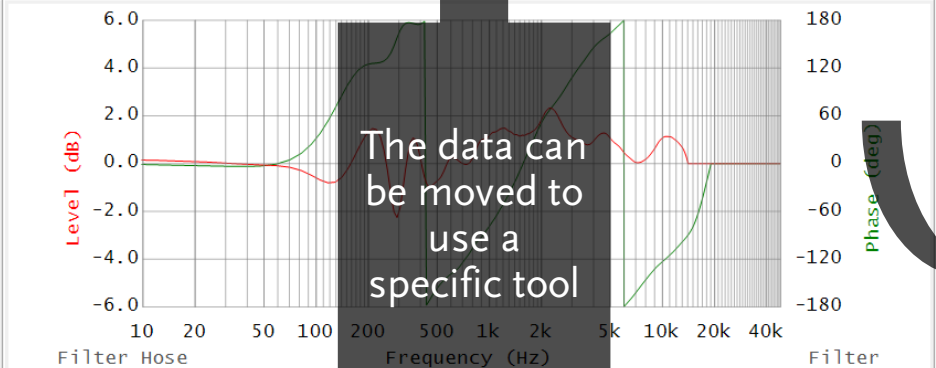
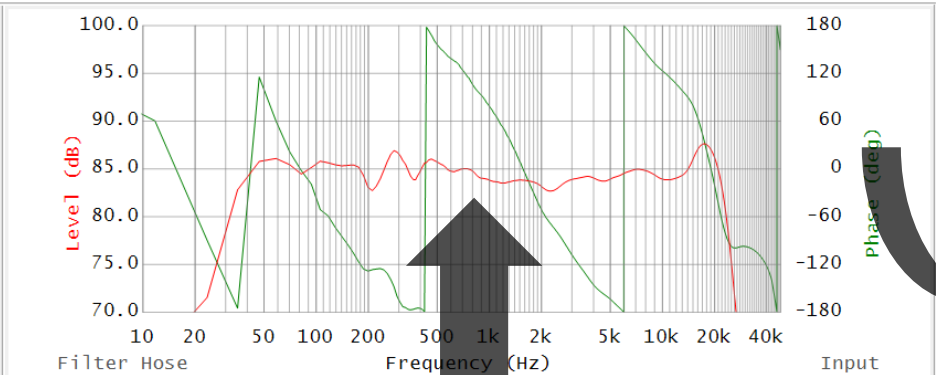
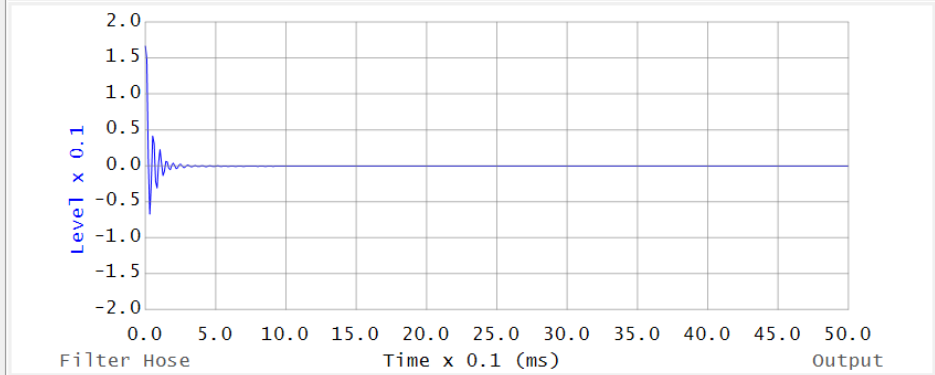
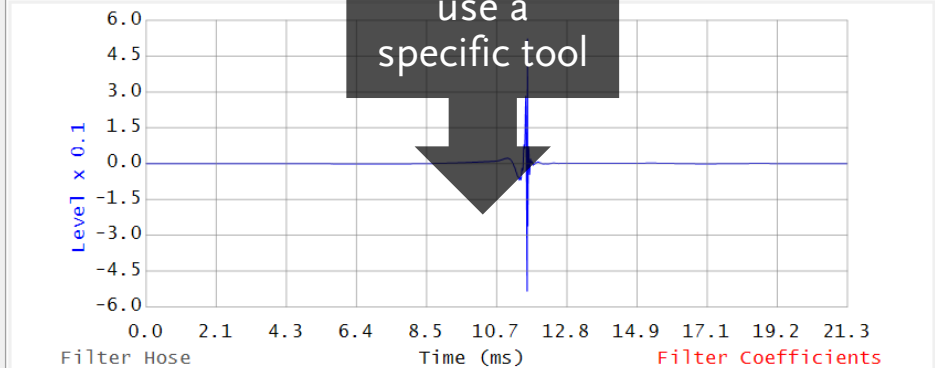
3. Set Filter Tap  
Hanning 20% Show  
Tap Length 2048 21.3 ms  
Shift Tap 0 C 50  
Start at Sample 7079 73.7 ms  
 Refer at Center  Refer at Max  
 Smooth Filter FR  Comp. Shift  
Clear Set

4. Convolve Input and Filter  
 Max to 0  Fast Calculation

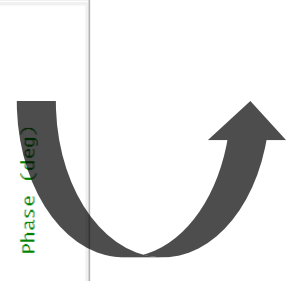
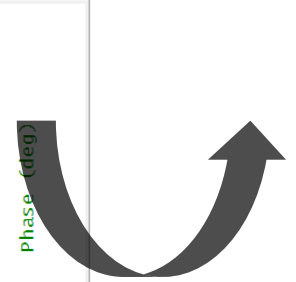
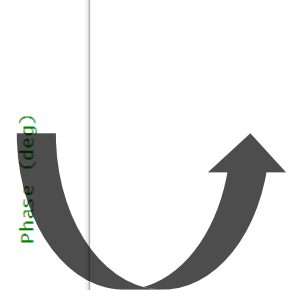
5. Export Filter  
 Wave  CSV  TXT  
 MiniDSP   
Right Click each graph for more export options.



The data can be moved to use a specific tool



The data can be moved to use a specific tool



The data can be moved to other Filter Hose windows

# Understanding the Graphical User Interface

The screenshot displays the 'Filter Hose' software interface, which is designed for audio processing. It features a sidebar on the left with five main sections: '1. Input Data', '2. Choose Filter or Target', '3. Set Filter Tap', '4. Convolve Input and Filter', and '5. Export Filter'. Each section contains various controls like sliders, dropdown menus, and checkboxes. The main workspace is filled with multiple overlapping windows. Each window contains a graph. The top row shows 'Input' graphs: a time-domain waveform (Level vs Time in ms) and a phase response graph (Phase in deg vs Frequency in Hz). The middle row shows 'Filter' graphs: a time-domain waveform (Level vs Time in ms) and a magnitude response graph (Level in dB vs Frequency in Hz). The bottom row shows 'Output' graphs: a time-domain waveform (Level vs Time in ms) and a phase response graph (Phase in deg vs Frequency in Hz). The graphs show a clear passband filter response.

Multiple Filter Hose windows can be used simultaneously.

# Understanding the Graphical User Interface

## Tools

Filter Hose v2.4.1

The diagram illustrates the workflow of the Filter Hose v2.4.1 software through four main tool sets, arranged in a circular sequence:

- Data Input Editing Tool Set:** This panel is used for configuring input data. It includes options for 'Auto Shift' (Max to 0) and 'Manual Shift' (1), a 'Total Sample Shift' of 0.0 ms, a 'Window (Optional)' set to 'Hanning 50%', and a 'Width' of 500 (5.2 ms).
- Filter Editing Tool Set:** This panel is used for configuring the filter. It shows 'Hanning 20%' and 'Tap Length' of 2 (21.3 ms). It also includes 'Shift Tap' (0, 50), 'Start at Sample' (73.7 ms), and options for 'Refer at Center' and 'Smooth Filter FR'.
- Output Viewing Tool Set:** This panel is used for viewing the output. It includes options for 'Max to 0' and 'Fast Calculation', and an 'Export Filter' section with options for 'Wave', 'CSV', 'TXT', and 'MiniDSP'.
- Data Input Editing Tool Set (repeated):** This panel is used for configuring the output. It includes options for 'Input', 'Filter', 'Output', and 'Settings'. The 'Output' menu is shown with options like 'Send to Input' and 'Send to New Window'.



# Reference & Other Information

Software:

Filter Hose v2.4.1

Reference Materials:

Filter Hose User Guide

*Supporting graphics/animations were created by Hadi using Sketchup, Microsoft Paint and PowerPoint.  
Flash video by William Ladson (Ladson Media inc.), music by Cliff Lin, Reynaldo Saut  
Video: Cyberlink Screen Recorder and PowerDirector.  
Audio: Nuendo, RME UFX, DPA 4288.*