

ASN Filter Designer: release notes (Version 4)



V4.0.6 (minor release, 31 October 2017)

General

- Fixed various bugs and improved stability.
- Fixed scaling and quantisation issue with the single section IIR filter designer.
- Fixed scaling issue in the signal analyser when using Fixed-point FIRs.
- Updated Matlab, Octave and Scilab Framework.
- Improved the UI help for the IIR and FIR designers.

V4.0.5 (major release, 3 October 2017)

General

- 10% performance increase and stability.
- Added support for ARM CMSIS DSP and Xilinx Vivado software frameworks.
- C/C++ framework complex filter support.
- Added All-pass filter designer UI.
- Improved help examples.
- Improved automatic code and documentation syntax highlighting.

Signal analyser

- Audio playback increased to 48kHz.
- Added Data import wizard.
- Added Advanced data analysis UI.

ASN FilterScript

- 20 new functions (more digital filter designers).
- Analog-to-digital filter design support (bilinear and matched z-transform).
- Symbolic Laplace transfer functions.
- Improved IDE, including more help and Intellisens.

Version 3

v3.1.4 (minor release, 9 March 2017)

- Improved stability.
- FilterScript:
 - Added **diff** and **savgolay** functions.
 - Fixed bug with interface variable stepsize.
- Signal analyser:
 - Added **Input Delay** functionality to UI, allowing for designers to shift the input waveform and visually compensate for the cascade's group/phase delay.
 - Added signal generator playback status icon.
- Filter summary: Improved formatting of the specification table.

v3.1.2 (minor release, 24 November 2016)

- Fixed various bugs and improved stability.
- Improved UI font scaling.
- Fixed IIR specification table for BPF and BSF when updating with design markers.
- Filter summary:
 - Added export to Microsoft Excel functionality.
 - Added ability to separate Real and Imaginary coefficients arrays in ANSI C.

v3.1.0 (minor release, 20 June 2016)

- Improved stability.
- Improved Help files.
- Improved ASN FilterScript data formatting.
- Removed phase correction scaling at 0Hz.
- Added product update check.
- Added Implementation cost to filter summary.
- IIR and FIR specification tables: Improved error checking and changed attenuation specification to positive values only.
- Fixed a computation issue with FIR filter designer.
- Added 'Median filter' option to H3 filter options.

v3.0.2 (minor release, 22 February 2016)

- Fixed various axes scaling issues with the charts.
- Fixed group delay estimate for H2 FIR filters.
- Added 'FarrowDelay.afs' filter script example.
- Added 'Phase analysis' option to signal analyser.

v3.0.1 (minor release, 25 January 2016)

- Improved stability.
- Improved the UI help for the IIR and FIR specification tables.
- Improved clarity of various UI elements.
- Increased sampling rate resolution to 4 decimal places.
- Updated documentation.
- Added 'output gain' option to H3 filter.

v3.0.0 (major release, 6 January 2016)

General

- Fixed various bugs and improved stability.
- Improved UI, including better panning of the main chart and more tooltips.
- Fixed bug with IIR and FIR specification table validation algorithm.
- Added three IIR filter structures: Direct Form I, Direct Form II and Direct Form II Transposed.
- Added two FIR filter structures: Direct Form and Transposed Direct Form.
- Added project design notes functionality.
- Improved framework examples.
- Improved Filter script examples, including more documentation.

Signal analyser

- Audio playback increased to 44.1kHz.
- Added 3rd (H3) post lowpass filter.
- Added "Amplitude modulation" function to signal generator.
- Added "Sqr" math function to Signal analyser.
- Added two more time domain analysis methods (autocorrelation, Real Cepstrum).
- Support for CSV data file import.

v2.0.28 (minor release, 16 September 2015)

- Various bug fixes.
- Added stem chart to time domain signal analyser options.
- Added L1 scaling to quantisation options.
- Improved clarity of phase unwrapping algorithm threshold option.
- Improved appearance for Windows 10.

v2.0.27 (major release, 13 July 2015)

v2 product release.