



Creating Burst Waveforms in APx

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The [APx Burst Waveform Utility](#) creates sine burst waveforms and then saves them and/or uploads them into the APx generator. A burst waveform contains a specified number of cycles of a waveform at full level, followed by a period of cycles at a lower level. The transition from full to low level happens instantly at the zero crossing of the waveform. The low level may be set at any level between 0 and 100%. This utility does not create shaped bursts, where the transition from high to low level occurs gradually over time.

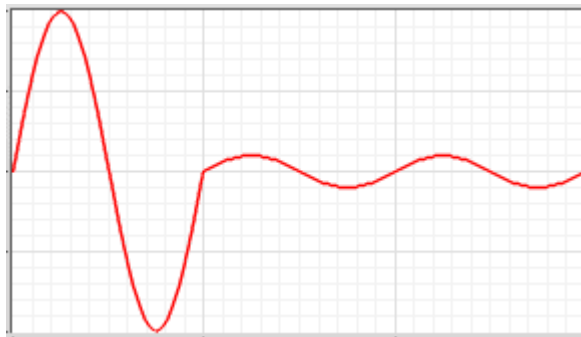


Fig 1 Burst waveform, burst on for 1 cycle with a total interval of 3 cycles. Low level is 10% (-20 dB).

Burst waveforms can be useful in testing a number of properties, including power supply transient response and reserve, meter ballistics, and compressor/limiter behavior.

The utility provides control over the Burst Parameters, the Pattern, and the Wav File Parameters. The frequency setting is limited to frequencies that are synchronous at the selected sample rate. 192 kHz is set as the default rate in order to provide the greatest resolution. This can be reduced if you need to save .wav files at a lower sampling rate.

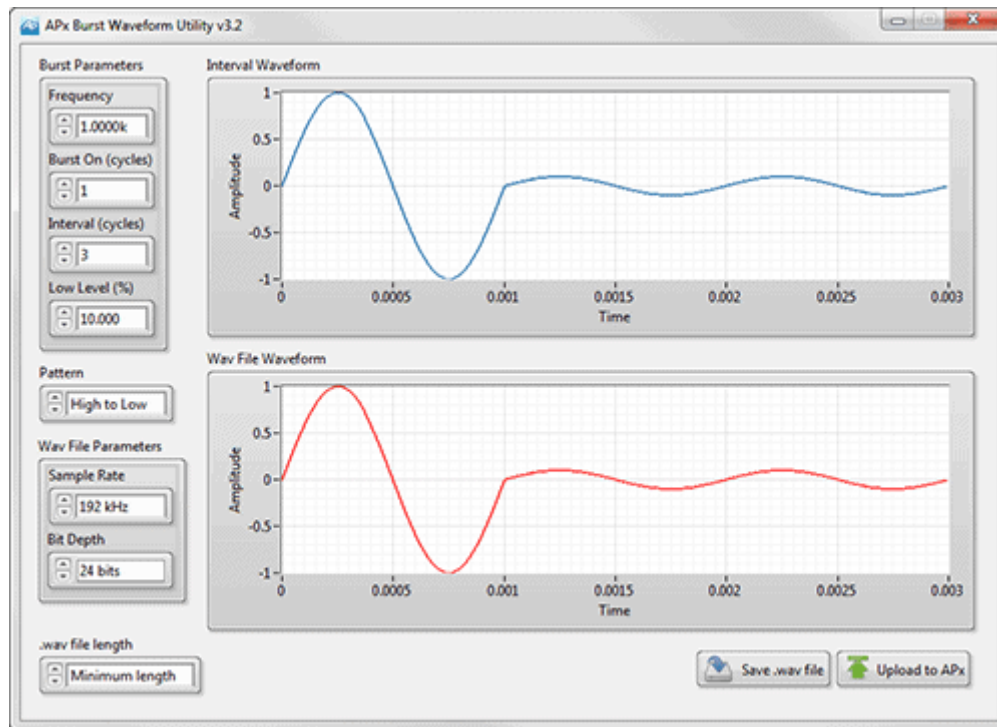


Fig 2 APx Burst Waveform Utility ([larger view](#)).

Wave file length may be set to *minimum length*, *specified samples*, or *specified seconds*. *Minimum length* will produce the shortest synchronous clip that is at least 256 samples long. The APx500 generator will seamlessly loop this clip until stopped. When the clip is loaded into Measurement Recorder, the Sweep Time will get set to 1 second, because the file is so short. After loading, you may reset the length of the acquisition to a longer length of time.

To use the utility, open it, set the desired parameters, and then click either "Upload to APx" or "Save .wav file". "Upload to APx" loads the waveform file directly into the generator for the current APx measurement. If APx500 is not running, or its version does not match the utility's, then this button will be disabled.

"Save .wav file" will prompt for a file location to save to disk. The file that is created may be played with any .wav file player, or uploaded later to the APx generator. It may also be imported into AP2700.

Downloads:

- [APx Burst Waveform Utility](#)