



Constant Wave Publishes LTE Waveform Generation Source Code

COLORADO SPRINGS – October 9, 2009 – Constant Wave, a developer of innovative RF signal processing software, has published source code for LTE waveform generation on its web site at http://www.ConstantWave.com/lte_source_code.aspx . Releasing C++ source code to the public domain can simplify the implementation of this challenging standard. In addition, it allows users of Constant Wave’s Spectro LTE Gen software to examine the core algorithms that construct LTE signals. This is a key issue for standards which are still evolving, such as LTE.

Although users of the source code are encouraged to submit comments and improvements to Constant Wave, they are under no obligation to do so. The source code is being released to the public domain, so users are free to use and modify the code as they wish with no requirements for attribution or republishing, as is common with open source licensing.

Some users only want algorithms; others need a complete solution

While the release of source code used in proprietary software is not common, it addresses the requirements of two distinct groups. “Some users only want algorithms; others need a complete solution”, explains Dr. Don Metzger, Chief Technology Officer for Constant Wave. “Both groups are served by releasing source code. Those interested in algorithms get a working code base which they can modify as desired. Those interested in a complete solution get visibility into the implementation of LTE. These users need software that can interface with hardware, work with multiple file formats and display the results of their work, requirements met with Spectro LTE Gen.”

Capabilities

Both the source code being released, and Constant Wave’s complete solution, Spectro LTE Gen, create LTE uplink (PUSCH) waveforms for use in testing LTE compliant devices and systems. They include support for 1.4, 3, 5, 10, 15, and 20 MHz bandwidths and both normal and extended cyclic prefixes. QPSK, 16-QAM, and 64-QAM modulations are supported.

To help users better characterize their devices, Spectro LTE Gen can create modified signals that exhibit desired properties. Users may apply pulse shaping to limit the frequency spectrum, add time and frequency offsets, add broadband noise, and adjust the output sample rate.

In addition to generating waveforms, Spectro LTE Gen allows users to see the EVM and symbol constellation for the generated data, create waveforms with known values of EVM, and view the waveforms in the joint time-frequency space with Constant Wave’s high definition spectrogram display.

Software as a Service (SaaS)

Spectro LTE Gen software is available on the Constant Wave web site using the Software as a Service (SaaS) model. SaaS allows users to rent the software on a monthly subscription basis at a price far below the standard purchase price. The SaaS model allows users to fit their expense to their need. They can avoid the expense of a perpetual license, a particularly desirable feature if the duration or quantity of licenses is varied or uncertain. Consultants working on short projects can benefit from this model, as can production environments where demand can ramp up and down quickly. Purchasing departments appreciate the fact that they can tailor their payments to fit their financial situation: capitalization or expense, lump sum or pay as you go.

About Constant Wave

Constant Wave is a developer of innovative RF signal processing software using the Software as a Service (SaaS) model. Other products include Spectro VNA, which introduced the biggest advance in time domain processing for vector network analyzers in 20 years, Spectro VSA, and Spectro Scope. The common theme in all of the products is to help engineers visualize their signals so that they can be more effective. As communication standards continue to evolve, traditional methods of analyzing data make it easy to miss important information in a captured signal. Additional information about Constant Wave, including white papers and product briefs, can be found at <http://www.constantwave.com> .

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