Agilent SystemVue

System-Level Design & Verification Environment

Industries and Applications

Aerospace and Defense R&DAccess

- MilComm, SatComm, Radar, Electronic Warfare, Elint

Wireless Communications R&D

- Emerging and Wideband Communications
- Medical, Automotive, PLC, Telemetry, Sensors, & more

Product Description

Agilent SystemVue is a system-level EDA environment that accelerates design and verification of defense and communications systems at the physical layer, where advanced digital signal processing meets RF. SystemVue brings together baseband algorithm modeling, accurate RF, trusted Reference IP, and measurement automation in a single environment for high-performance RF/DSP co-design.

Agilent SystemVue combines with Agilent Modular Products to create an expandable platform for modeling, implementing, and validating next-generation communications systems and defense systems.

A modular approach to the design environment enables a virtual system to be verified from the first day of a project, beginning with simulation models, and gradually incorporating more measurements. As your design is completed into working hardware, SystemVue's simulators transition out of your block diagram, and the Agilent measurement equipment remains to do final verification. This allows continuous model-based design validation from concept to hardware, for earlier "real-world" design maturity, and fewer Baseband-RF design iterations.

Typical Applications

- Signal generation with fading & impairments
- Early standards support
- Accurate component modeling and linearization
- Wideband system validation
- Use simulation to imitate missing hardware components, for early system validation

Main Features and Benefits

Product features	Your benefits
Popular modeling languages: C++, MATLAB .m, HDL, or graphical dataflow schematics	Open, vendor-neutral formats reduce costs and connect Agilent Test with Enterprise EDA tools
Superior RF simulation speed & accuracy, with links to RF EDA	Virtualize RF/MIMO components for earliest system validation with high confidence
World-class IP references for LTE-Advanced, 802.11ac/ad, Radar, and other standards	Create and re-use TX/RX and MIMO verification suites with confidence across the whole lifecycle from design to test
Superior integration of Simulation with Test & Measurement	Bring "Drive Test" accuracy into 4G design, while creating custom personalities around test
Interoperates with a wide variety of Agilent equipment and software, including 89600 VSA and Command Expert	Makes highest use of best-in-category assets, while unifying DSP and RF design lifecycles into a coherent flow

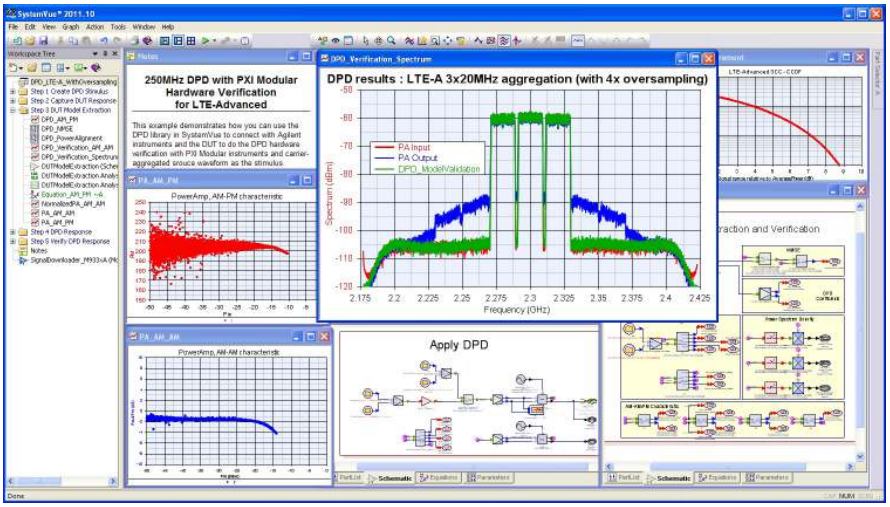

Figure 1. SystemVue's W1716EP Digital Pre-Distortion (DPD) personality directly controls modular M9381A PXI VSG and M9391 PXI VSA to characterize wideband 4G power amplifiers.

Software Information

Software operating systems	Microsoft Windows 8 (32/64-bit) Microsoft Windows 7 (32/64-bit) Microsoft Windows XP (32-bit)
Available Add-on Applications and Design Flow Personalities	Fixed-point models, HDL Code-Generation, C++ Code Generation, Adaptive EQ, DPD Builder, MIMO Channel Builder, RF System Architectures
Available Standards Reference Libraries	**Comms:** LTE-Advanced, LTE, HSPA+, WCDMA, CDMA2000® , CDMA, WiMAX™, 802.11a/ac/ad, DVB-S2/T2, Custom OFDM, Bluetooth, Zigbee, and nearly 40 general purpose formats for Milcomm/Satcomm. **Radar:** Doppler, UWB, SAR, DAR, FMCW, Phased Array, Beamforming
Agilent software applications that are tightly integrated with SystemVue	**Agilent test software:** 89600 VSA, FlexDCA, I/O Libraries, Command Expert, Waveform Creator. **Agilent EDA software:** Advanced Design System, GoldenGate
3rd party applications and development environments that are integrated with SystemVue	Microsoft VisualC++,MATLAB, VHDL/Verilog, FPGA Hardware-in-Loop, (HIL), STK (Analytical Graphics) and more.

Key Product Links
Product Info: www.agilent.com/find/eesof-systemvue
Configurations: www.agilent.com/find/eesof-systemvue-configs
Videos: www.agilent.com/find/eesof-systemvue-videos
Request a 30-day Evaluation License: www.agilent.com/find/eesof-systemvue-evaluation

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Ordering Information

Recommended Products & Environments

Core Environment

- W1461BP SystemVue Comms Architect

People who use Agilent Modular Instruments often buy:

- W1716EP Digital Pre-Distortion Builder
- W1905EP Radar Model Library
- W1902EP Digital Modem Library
- W1918EP LTE-Advanced Baseband Verification Library

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