

SystemVue training class for Phased Array Antenna design, Beamforming dataflow & 5G New Radio

Course Overview

- SystemVue Phased Array analysis
- Time domain beamforming using dataflow analysis
- Introduction to 5G New Radio in SystemVue

What you will learn

- Quickly set up various phased array systems and configurations.
- Easily analyze various phased array systems and configurations.
- About the various measurement & statistical evaluations available.
- To make meaningful, 3D plots.
- To link your dataflow design with the phased array design using the RF Link PhasedArray co-simulation component.
- To set up, configure and analyse various beamformer architectures.
- To easily simulate different antenna array configurations.
- ...and to extract the correct measurements from these.
- To configure 5G NR sources for various bandwidths & numerologies.

Course Type

User/Application Training

Audience

Designers

Course Length

2 days

Course Format

The course combines lecture presentations with instructor guided, hands-on sessions.

Delivery dates:

To Be Discussed

Detailed Course Agenda

SystemVue Phased Array

- Introduction to the Phased Array Analysis
- Setting up Analysis
- Tx and Rx Modes
- New Array Parts
- Theory of Operation
- Measurements
- Spectrasys Simulation of a Phased Array design
- Performing Statistical / Monte Carlo Evaluations
- RF Link PhasedArray and Data Flow cosim
- Theory of Operation
- Requirements
- RF Beamforming

Introduction to Beamforming in dataflow

- RF and Digital Beamforming Architectures
- Beamforming Weights
- Antenna Array Configuration
- Beam Patterns
- Dynamic and Static 3D Plots and Graphs
- Beam Measurements
- Shared- and Sub-Arrays for Multi-Users
- SystemVue Matrix Parts

Introduction to 5G New Radio in SystemVue

- 5G Introduction
- 5G NR Signal Generation