PSR & SSR Simulator

The PSR & SSR Simulator is a sophisticated simulation software which is delivered on a rack server. Learners can access the simulations through any recent generation HTML5-enabled browsers on any operating system. Computers get access the LAN or Wireless LAN, enabled through the SkyRadar Cloud Server.

It allows for

- plug-and-play availability in all SkyRadar CloudServer based infrastructures
- no installation or maintenance of the software on the student computers (apart from exceptional cases, e.g. in the context of ILS, when voice communication is required)
- 100s of concurrent users, working simultaneously on the same applications and radars (enabled through a private cloud server, located at the customer site).
- drastically reduces system costs per user and makes SkyRadar the most economical training system (using real radars!) in the world
- allows for easy and effortless expansion of the system (e.g., when adding additional primary or secondary radars)
- accelerates the learning curve of students, as they are accustomed to the comfortable SkyRadar learning environment
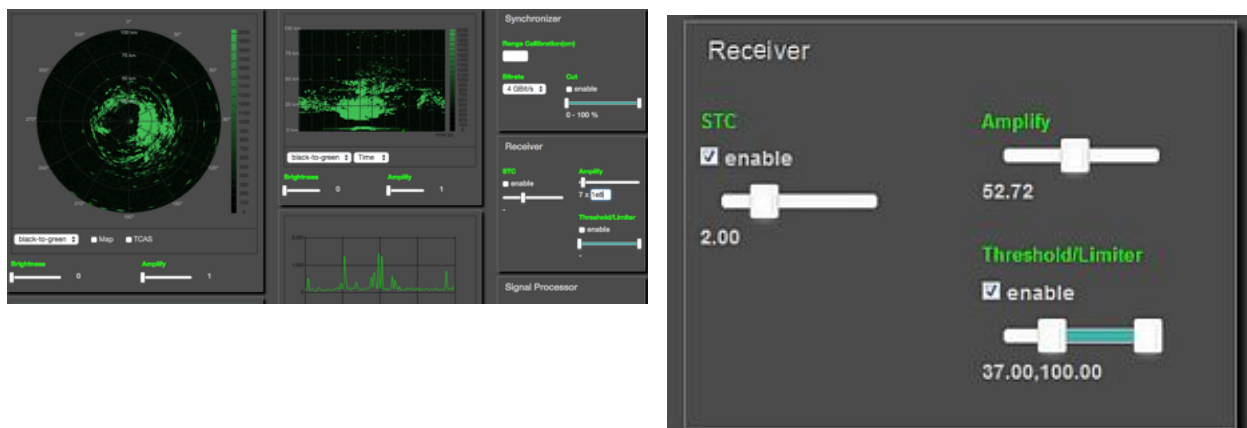
Subjects

Primary Surveillance Radars

The simulator operates the following primary surveillance modes:

- Pulse
- Constant Wave (CW) / Doppler
- Frequency Modulated Constant Wave (FMCW)
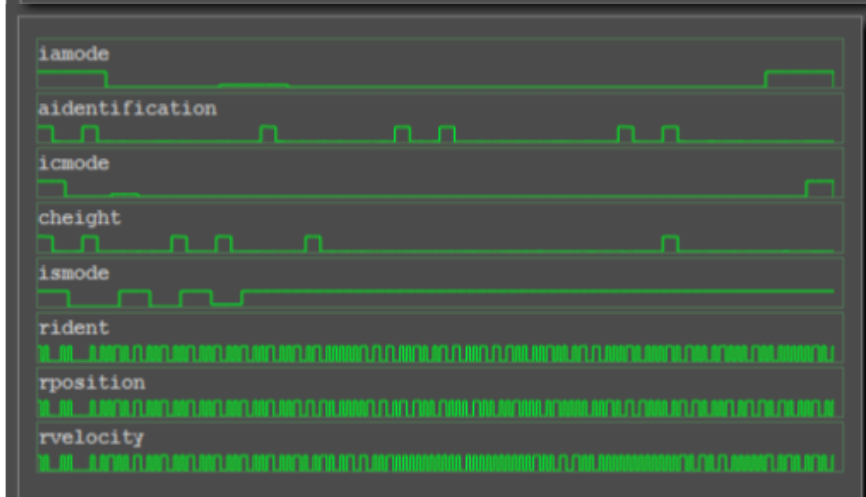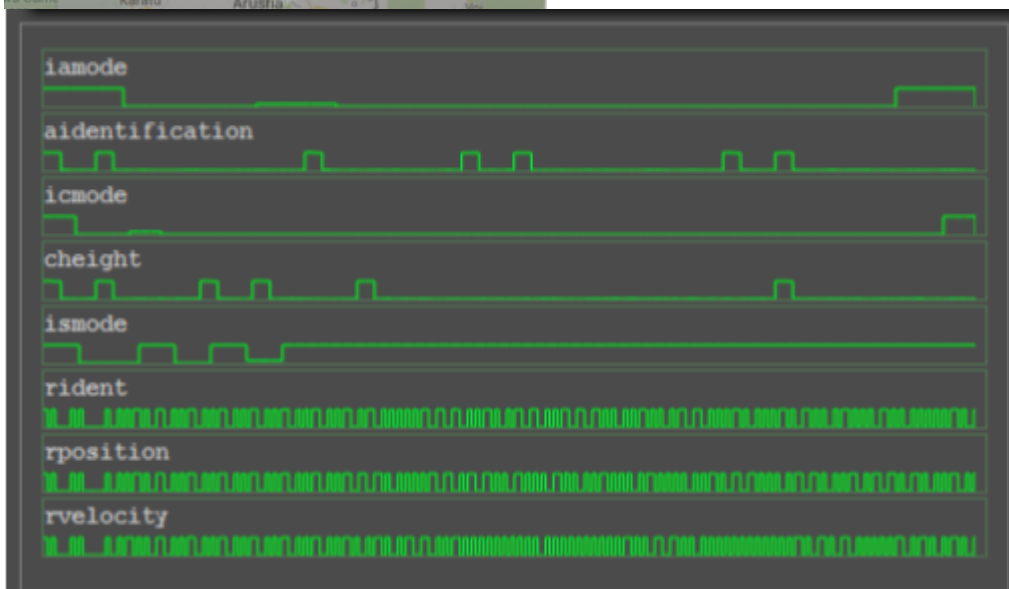- Synthetic Aperture Radar (SAR)

- inverse Synthetic Aperture Radar (iSAR)

Secondary Surveillance Radars

FreeScopes also serves as GUI for secondary surveillance radar. It provides the following user interfaces:

- PPI Scope with information of key aircraft data as 3rd dimension (Visualization of DF17 Squitter Signal)
- Visualization of interrogation and downlinks as pulse diagrams as well as in a table

Using FreeScopes as a standardized user interface for Pulse, Doppler, CW, FMCW and SAR / iSAR simulators, it provides all important scopes and control elements for the application.

- Scopes: A-Scopes, B-Scopes, Plan-Position-Indicator for PSR, Synthetic Aperture Radar Screen (SAR), inverse SAR (iSAR)
- PPIs: SSR Mode A/C and Mode S, ADS-B, Collision Avoidance (TCAS) and Minimum Height Alert
- Pulse Diagrams and table Sidelobe Surpression, uplink format (UF), downlink format (DF), DBS registers
- Pseudo-Pilot Screens