3.21 SERVAL: A NEW CENTRALIZED PROCESSING SYSTEM FOR THE FRENCH RADAR NETWORK

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With the increasing number of radars and products and the increasing complexity of the processing chain, Météo France was led to develop a centralized radar processing system called SERVAL (Systme dElaboration des produits Radar et de VisALisation). The new system is hosted on Mto France mainframe processing platform called SOPRANO in Toulouse and is designed to be flexible and easily extensible to facilitate the integration of new algorithms and the deployment of the system to larger networks.

SERVAL ingests raw data in polar form, which represents the best compromise between native measurement made by the sensor and capabilities of dissemination and archiving. The system offers supervision facilities throughout the whole processing chain thanks to a friendly configurable web interface that delivers information on the radar network state and enables the visualization of intermediate and final products. A configurable replay facility is included to facilitate the reprocessing of archived raw data and to trial new products more easily.

A particular advantage of SERVAL is to facilitate the integration of new ideas into the operational production software by offering object-oriented and a standardized framework for common actions such as decoding, encoding, logging or images visualization. Thus, any new developer, whether engineer or scientist, benefits from the experience of former developments to add its contribution. An integration procedure allows the deployment of the latest version of the code as soon as it is available on a Linux server on which a continuous data processing is scheduled using real time data.

In this paper we will give an overview of SERVAL, present the supervision and describe how SERVAL can be used both as an operational platform and a research and development tool.