

Complete Embedded Radar Acquisition and Scan Conversion System Resides on a Single VME Card



Curtiss-Wright Controls Defense

Solutions (CWCDs) has announced the availability of SoftScan/1905, its new integrated embedded Radar Acquisition and Scan Conversion system that combines the company's SoftScan radar scan conversion software and a rugged, high performance COTS 6U VME single board computer (SBC). SoftScan/1905 hardware comprises a 6U VME CWCDs SVME-1905 SBC and an XMC-710 graphics controller mezzanine card. The system's display controller supports dual-head graphics output on DVI-I single-link (dual-head output) or dual-link (single-head output), with resolutions up to 1600x1200 (single link) or 2560x1600 / 2048x2048 (dual-link, single head). The SoftScan software, which is supported on both PC-based systems for application development and embedded platforms for system deployment, uses advanced GPU-accelerated algorithms to deliver unmatched scan-conversion performance while off-loading the host processor. This enables the SBC's main processor to be primarily dedicated to the processing of the customer's computationally demanding application code. SoftScan radar scan conversion supports polar format radar data input either via its network interface from a CWCDs Radar Video Processor (RVP) server or via an optional on-board Osiris PMC radar acquisition card. Plan Position Indicator (PPI), A-scan and B-scan display formats are supported with rapid pan and zoom.

SoftScan's powerful proprietary algorithms eliminate holes or spokes in the displayed image at any range or zoom level. SoftScan also ensures that all single point targets are displayed. Multiple windows may be created, each displaying multiple radar sources, and all windows are movable and resizable in real time.

Control and API Features Ease Application Development

SoftScan is implemented as a set of libraries enabling the user to create applications with one or more windows into which rendered radar video is displayed in PPI, A-scan or B-scan format. Additional video data, such as charts and track

Complete Embedded Radar Acquisition and Scan Conversion System Resides

Published on Electronic Component News (<http://www.ecnmag.com>)

symbology, can be added to these windows as overlay and underlay layers. The API provides real-time control of all radar display characteristics from window sizing and zooming to programmable fade and color parameters.

SoftScan/1905 Performance Features include:

Radar scan conversion in a single-slot 6U VME embedded form factor

Rugged CWCDs SVME-1905 SBC

XMC-710 graphics controller XMC card

Optional dual-channel high bandwidth radar acquisition capability

Optional SoftScan/RDS application software supports turnkey radar display console

L0, L50, L100 and L200 ruggedization levels (only L0 and L50 if radar acquisition included)

Curtiss-Wright Controls Defense Solutions

703-779-7800, www.cwcembedded.com [1]

Source URL (retrieved on 12/25/2014 - 3:57pm):

<http://www.ecnmag.com/products/2012/03/complete-embedded-radar-acquisition-and-scan-conversion-system-resides-single-vme-card>

Links:

[1] <http://www.cwcembedded.com>