

Legacy File Conversion Instructions

About This Guide

Purpose and Scope

This guide provides instructions to convert legacy system waveform files to formats supported by the Signal WorkShop™ Analysis Suite. This procedure applies to legacy system waveform files that have been generated by the following systems:

- CS1104 Scout
- CS1247 Explorer (Narrowband and Wideband)
- CS65020F Firestorm

Please contact VIAVI Customer Service if your legacy system is not identified in this document.

Assumptions

The procedures in this guide are intended for users who are familiar with the legacy system and the parameters of the legacy waveform being converted.

Knowledge and use of the Signal WorkShop Analysis Suite is recommended.

This procedure is intended for users who are familiar with command line format and requirements.

Related Information

Refer to the Signal WorkShop Analysis Suite user documentation for information and instructions for use of the Signal WorkShop Application.

Trademarks

Signal WorkShop is a registered trademark of VIAVI Solutions.

File Conversion Procedures

The following procedures allow users to convert legacy system waveform files for the purpose of playing the waveforms on Ranger systems.

NOTE: Conversion rate is ~2.5 Mbps

NOTE: Signal WorkShop (SWS) analysis (SVT File) supports all legacy and modern data file formats. This conversion application note is only required for the user who wants to play legacy files on a current Ranger system using SWS's vector signal player (VSP), which is available from the "Player" tab.

Procedures are product-specific; refer to the appropriate procedure for your legacy system.

CS65020F Firestorm and CS1247 Wideband Explorer Systems

This procedure applies to waveform files that have been generated using either the CS65020F Firestorm or the CS1247 Wideband Explorer systems. The waveform files generated by the CS65020F and the CS1247 systems contain real sample data. The real sample data must be converted to I/Q data in order to play the waveforms on a Ranger System.

NOTE: Ranger Systems are not capable of reproducing 400 MHz IBW. This conversion tool will reduce signal wideband so that wideband files can be played on Ranger Systems.

NOTE: Waveform capture files must be in the standard paired file format using a .dat data file paired with a .txt header file.

NOTE: Conversion of CS65020F (Firestorm) and CS1247 (Explorer) wide band waveforms is a two-step process. First, the waveform must be processed using SWS's tuned save function, which will preformat the metadata (.TXT) file, then the user must continue with the converter.py process described in the second section for CS1104 and CS1247 narrow band, which will then byte-swap the IQ data (.DAT) file into Little Endian format, suitable for waveform play on Ranger and further edit the .TXT metadata file to reflect that change.

CS65020F and CS1247 Wideband Waveform Conversion Procedure

1. Launch the Signal WorkShop Analysis Suite.
2. Press the SVT File Analysis button to enter SVT File Analysis.



SVT File Analysis Button (bottom left of screen).

3. Select the Open File Button.



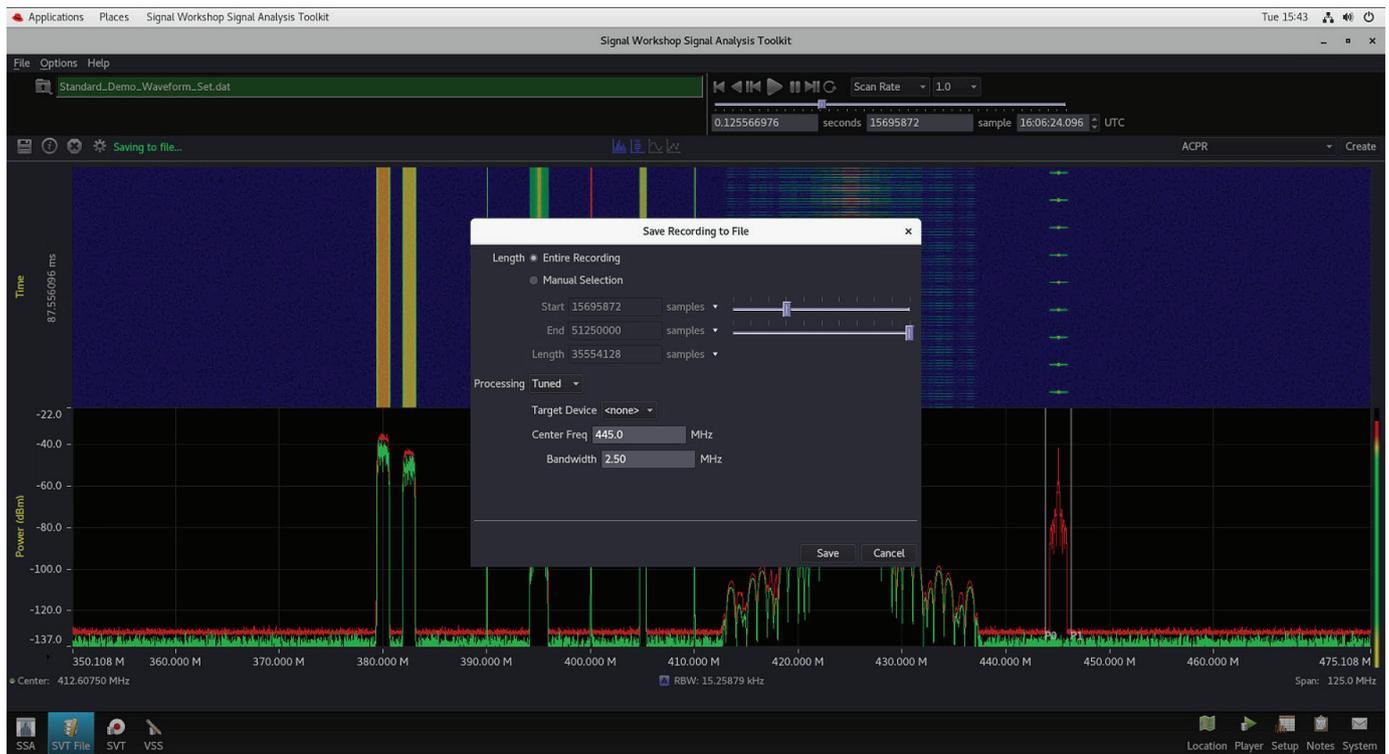
Open File Button (top left of screen).

4. Navigate to the waveform file that is to be converted. When files are selected, the signal will be displayed on SVT File Analysis window.
5. Record the displayed center frequency and bandwidth of the signal. Use these values to determine the desired center frequency and bandwidth to be used when defining new signal parameters in Step 7.

6. Resave the selected recording using the File Save Window shown below.

7. When configuring the file, select "Tuned" processing and enter the center frequency and bandwidth of the waveform file being converted.

Note: Maximum Bandwidth for Ranger is 250 MHz. Bandwidth value must be set to an integer multiple value of 250.



8. Select the Save Button. Navigate through the user prompts to store the target file.

9. At the User File Info Prompt, note that user-defined info is optional.

10. When the file conversion is complete, the converted file will then need to be further processed using the procedure listed below for CS1104 Scout and CS1247 Narrowband Explorer.

