TIMEWISE

- **More Flexibility in Data Analysis Using Your Existing Equipment**
- **Increased Data Analysis Flexibility Over VNAs**
- **Reduce Time Required to Analyze Data**
- **Eliminate the Need to Repeat Measurements**
- **Enhances Product and Compliance Troubleshooting**
- **Directly Compare and Correlate Data Sets from Different VNAs**
- **Increase Accuracy and Reduce Errors from Gated Results**
- **TimeWise Library Works with Other Software Packages**

ETS-Lindgren's TimeWise™ allows time domain gating and Fourier analysis of raw data, simulated or collected from equipment like vector network analyzers (VNAs). TimeWise is a library tool kit that can be used with other software packages, providing maximum flexibility.

The TimeWise library provides many features beyond simple time domain gating and Fourier Transform analysis including on the fly windowing to identify time domain events, perform additional gating analysis on gated data sets, and patented edge treatment method.

Product Features

Flexible data analysis

Perform time domain gating and Fourier Transform Analysis with all the time domain analysis functionality you expect from a commercial VNA. TimeWise's flexible transform algorithm goes beyond simply applying Fast Fourier Transforms (FFTs) including:

- Zoom into a time period with high resolution as opposed to being limited to the Fast Fourier Transform (FFT) intrinsic range $1/\Delta t$ and resolution $1/(N\,\Delta t)$
- Adjust the windowing function on the fly to help effectively identifying time domain events.
- Mirror commercial VNA capabilities, including the gate shape, and band edge treatment to emulate a specific VNA's algorithm and achieve identical results
- In addition to providing the edge treatment techniques such as edge. renormalization method (used in many commercial VNAs), TimeWise includes a patented enhanced edge treatment method which can significantly reduce band edge errors for many applications.
- TimeWise permits the user to apply gating on a previously gated data set, allowing the user to perform more advanced data analysis.

Lightning Fast analysis

The transforms or gating are done in real time, taking advantage of the modern fast algorithms. This is further enhanced by current computer processing speeds, which is likely much faster than the VNA hardware.

TimeWise is not limited to time domain analysis. Use the library to perform other Fourier analyses, such as processing data between spatial and spectrum domain, taking advantage of the patented enhanced edge treatment techniques, and the conveniences provided by the tool set.

TimeWise is a set of library files that can be integrated with your preferred software including C++, matlab, or other preferred programing environment. Timewise also supports Microsoft Windows 11.