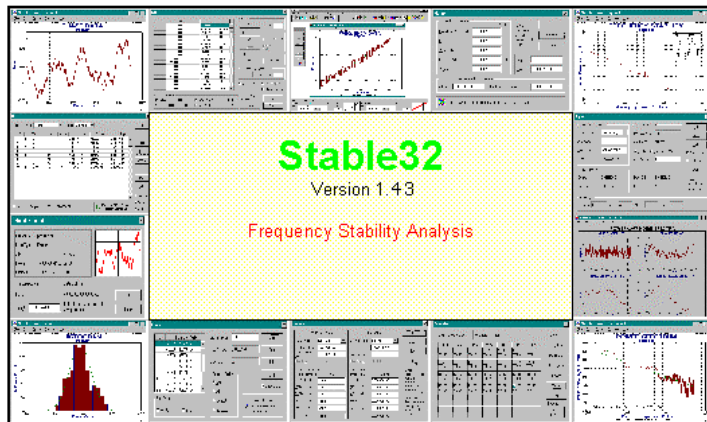



# Stable32

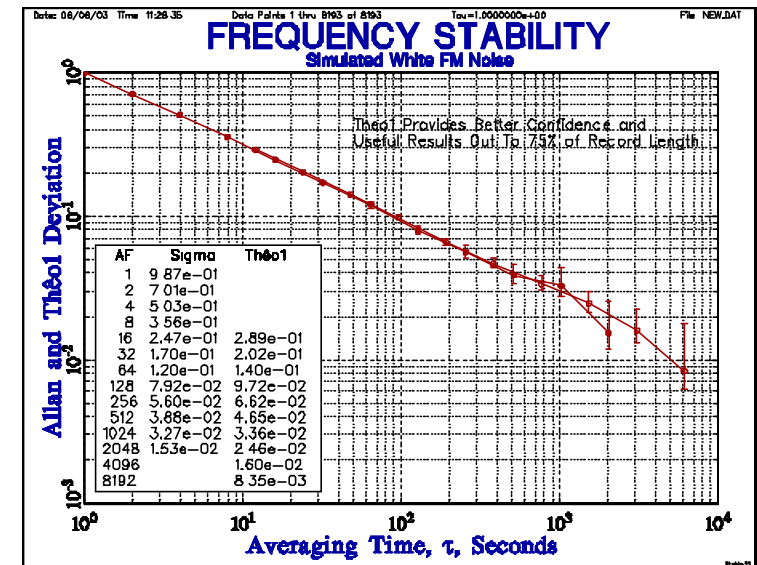
## Frequency Stability Analysis



 Hamilton Technical Services  
195 Woodbury Street  
S. Hamilton, MA 01982 USA

The following changes have been made to Stable32 Version 1.43 of 01/18/04 compared with Version 1.38 as documented in this User Manual:

1. Added the Many Tau feature to reduce the time to display and print an all tau stability plot.
2. Added the  $\text{Th}\sigma_1$  statistic, New $\text{Th}\sigma_1$  bias corrections and ADEV matching in a composite plot.
3. Changed to Version 2.0 of the Freqenc DLL.
4. Improved the handling of duplicate and missing points when performing a Use Timetags for Tau conversion.
5. Added Opaque option for data and stability plots.
6. Added the Autocorrelation function (ACF), along with its ACF & lag scatter plots and noise identification method.
7. Applied ACF noise ID method to Sigma and Run functions.
8. Added Plot Inserts dialog box to select plot insert files.
9. Added choice of data averaging in Open Data File dialog box.
10. Made miscellaneous small changes, fixes and improvements.



Composite Overlapping Allan and  $\text{Th}\sigma_1$  Stability Plot

For information about using the new Many Tau feature, please see the Run function Help topic. For information about the new  $\text{Th}\sigma_1$  statistic, please see the  $\text{Th}\sigma_1$  Help topic. An example of the new composite Overlapping Allan and  $\text{Th}\sigma_1$  stability plot is shown above. For information about the new Autocorrelation function, please see the Autocorrelation function Help topic. Examples of the new ACF and lag scatter plots are shown on the next page.

