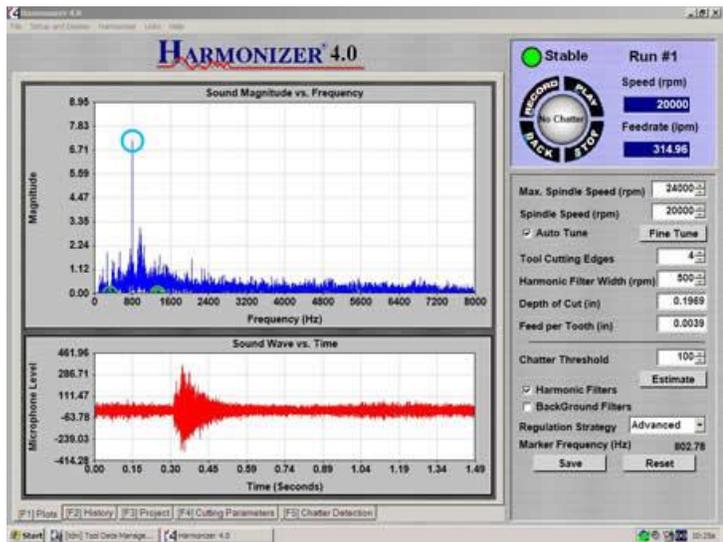# HARMONIZER® 4.0
Chatter Control Software

The Harmonizer® selects the optimum spindle speed range for your process. It utilizes BlueSwarf/MLI's patented method for detection and avoidance of chatter susceptible spindle speeds based on intelligent selection of spindle speed. The Harmonizer® makes it available for non-automated applications at a significantly reduced cost to the user.

The Harmonizer gets its name because it suggests spindle speeds that "harmonize" with detected chatter frequencies. To use the software, a preliminary audio sample of the machine running but not cutting is collected to establish a threshold. The user enters current spindle speed, maximum allowable speed, and number of teeth on cutter. A cut is recorded. A processed frequency signature depicts chatter frequencies if detected. The software algorithms then compute a new spindle speed that reduces or eliminates chatter.

SYSTEM REQUIREMENTS: Notebook, netbook or desktop PC running Windows 2000, XP, XP-Pro, ME, Vista and 7 operating systems.

HARMONIZER® Version 4.0 FEATURES:

- **Platform Generic** - The package can operate on any Windows® PC equipped with any version sound card. A directional microphone is included. Harmonizer® is available by user license or by monthly subscription. For users interested in convenience, portability, and cost savings, the Pocket Harmonizer® is available on a Windows® Mobile palm-top PDA or smart phone.

- **Chatter Detection** - The user is only required to enter the approximate spindle speed and the number of teeth on the cutter. The Harmonizer® automatically sets the threshold (if requested), and indicates the presence or absence of chatter in the recorded data.

- **Spindle Speed Insensitive** - Estimate the current spindle speed and the package automatically ignores spindle speed components and sets chatter thresholds to reliably detect chatter. When chatter is detected, the Harmonizer® recommends a stable spindle speed, if one exists.

- **Dynamically Complex Systems** - Direct the user to perform multiple speed adjustments to deal with cases that exhibit more than a single chatter mode. Additionally, the package can determine if there are no spindle speeds that will eliminate the chatter.

Kit Price: $2975.00

Includes Unidirectional Microphone, instructions and CD-ROM

For More Information
Learn more about BlueSwarf® and the Harmonizer® system at www.blueswarf.com