Bently BALANCE* Balancing Software

Bently Nevada* Asset Condition Monitoring

Description

Bently BALANCE is a powerful software application for managing complex balancing problems. Bently BALANCE has been developed based on fundamental engineering principles, industry standard balancing methods, and our legacy of balancing experience.

Machines are balanced by adding or removing small masses on a rotor in order to reduce the 1X vibration levels. The more closely the center of mass and center of rotation of the rotor coincide, the less unbalance there is and the more smoothly the machine operates. There are a number of other possible factors that can affect the machine's 1X vibration that must be considered prior to any balancing attempts. Whatever the cause of a high vibration problem, always analyze "all" available information and data before attempting to balance a machine.

Bently BALANCE software provides balance solutions in both graphical and numeric formats, in addition to maintaining detailed documentation and balancing history. Bently BALANCE is ideal for rotating machinery engineers who need tools to handle a variety of balancing needs and is also well suited for OEMs in test stand applications. Machinery "templates" allow users to organize their machinery into categories that facilitates the configuration process. A basic overview of the product and general features goes in this section. No technical specifications or ordering information should be given, as the following pages will cover these.

CAUTION: It is VERY important to determine if high 1X vibration is actually a result of unbalance before adding or removing correction weights. Attempting to balance machinery that has other problems may result in unpredictable and possibly catastrophic results.

Bently BALANCE software enables you to:

- Calculate, use, and manage multiple Influence Vector sets.

- Use calculated influence vectors or user defined influence vectors.

- Calculate "what if" scenarios and graphical balancing solutions with calculated polar plot responses.

- Balance for multiple speeds or a range of speeds under different load conditions.

- Handle your most complex balancing requirements...up to 32 channels (16 per ADRE® database) and 16 correction planes.

- Select up to 32 solution points for each measurement location, i.e. 32 speed or load conditions.

imagination at work

- Provide an optimized solution where the number of measurement planes is different from the number of correction planes.

- Detect and warn of non-linearities in response data.

- Allows manual entry of data, so that the software can be used in any application where amplitude and phase measurements are available, regardless of the data source.

- Provide detailed documentation, a history of balancing activity, and the results.

- Define Machine Train Templates for ease of use.

- Full Weight Map documentation for holes and slots.

- Document unknown weights in weight map, removal of weights, etc.

- View machine from "Driver to Driven" or "Driven to Driver".

- Display up to 4 simultaneous curves on each polar plot.

- Display base run and predicted data on the same polar plot.

- Change balance weight distribution on each plane individually and show influence on all other planes.

- Display transducer locations directly on Machine Train graphic.

- Allows the user to view balance and calibration weights with respect to either the transducer location, or a user defined reference location.

- Allows user options to calculate an optimized balance weight solution across two adjacent holes.

- Full Support for Metric and English units.

- Import data from ADRE for Windows® and System 1® databases .

- Import data from a Microsoft® Excel spreadsheet (a template is provided).

Specifications

Database Access and Storage

The Balance Database uses an embedded version of Microsoft ®SQL Server database. The BALANCE database must reside on the computer that Bently BALANCE software is installed on. When you start the Bently BALANCE application, it opens the last database that was open before the application closed.

ADRE for Windows Database Considerations

Data access

ADRE for Windows® databases may be imported into the Balance Database from any location your computer can access. If your computer is part of a network, you can retrieve ADRE for Windows® databases from another networked computer.

Database size

ADRE for Windows® databases Can range in size from less than 1 Megabyte to over 12 Megabytes.

Networking

The Balance BALANCE computer does not require a network card. However, if one is installed, access to other ADRE and balance databases on network computers is available as well as access to network printers. Ensure that all networking hardware is installed and configured according to your network administrator's specifications.

Computer Requirements

Minimum Computer Requirements

300 MHz PIII Processor
128 MB RAM
16 Bit Video
150MB of free disk space

Recommended Computer Requirements

500 MHz PIII Processor
256 MB RAM
16 Bit Video
500MB of free disk space

Operating System

Windows® XP Professional
Windows® Server 2003
Windows® Vista Business (When run as Administrator only)
Windows® 7 (32bit and 64bit OS) (When run as Administrator only)
Windows® Server 2008 (32bit and 64bit OS) (When run as Administrator only).

Licensing

Bently BALANCE is available only as a single license. For each installation of this product, a separate license is required. Contact your local sales or service representative to purchase or install this software at your site.

Software Technical Support Agreement

The Software Technical Support Agreement enables you to contact our Product Service department for assistance at any time during the selected period of coverage. The support agreement period begins with your initial request for assistance, first software update, or three months after your order, whichever

comes first.

In addition to E-mail, Fax, and telephone support, the Support Agreement provides free software updates as well as updates via the internet. Technical support plans are available for single and enterprise wide installation of all of our software products. Contact your local representative for details specific to your needs.

Registration for Bently BALANCE Technical Support

Registration of the Bently BALANCE software product is the only way to activate your Technical Support Agreement.

Training Programs

We are pleased to provide training to meet your needs. Training can be provided at your facility or at one of many Training Centers located around the world. Contact your local representative for details specific to your needs.

Ordering Information

Bently BALANCE Software

3030/01 – AXX

A: Software

0 1	Initial Purchase – Software and License Key
9 8	Replacement License Key
9 9	Revision or Update – Software Only

Technical Support Plan
TSA_EXTENSION-AXX-BXX-CXX-DXX-EX-FXX-GX-HX-IX-JXKX

A: TSA Level
01	Platinum
02	Gold
03	Small Enterprise (Single DAQ only with limited number of channels)
04	Supporting Service Agreements (Sold only with SSAs)
05	Power Generation (System 1 for Power Generation Packages only)

B: Number of Data Acquisition Licenses
00-20	Data Acquisition Licenses

C: Number of ADRE Sxp Licenses (Sold Separately)
00-20	ADRE Sxp Licenses

D: Number of GateCycle Users (Sold Separately)
00-20	GateCycle User Licenses

E: TSA Duration
1	One (1) Year
2	Two (2) Years
3	Three (3) Years
4	Four (4) Years
5	Five (5) Years

F: TSA Scope – Products Covered
01	System 1
02	ADRE Sxp
03	ADRE for Windows
04	3500 Rack Configuration
05	3500 DAQ/Display
06	Bently Balance
07	Bently Lube
08	1701 Field Monitor
09	GateCycle - External
10	GateCycle - Internal

G: TSA Type
01	Extension (Extension of a currently active TSA)
02	Renewal (Renewal of an expired TSA)

Note: Initial purchase of this software includes 1-year of Platinum level support for that product. For questions regarding the Technical Support Agreement program call Technical Support at (775) 215-1818.

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