

Bently BALANCE™ Balancing Software



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 Bently Nevada's years 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.

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.
- 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 Bently Nevada’s 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 Bently 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

Microsoft® Windows® 2000 or Windows XP®

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 the Bently Nevada Corporate 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 Bently Nevada software products. Contact your local Bently Nevada 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

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

Ordering Information

Bently BALANCE™ Software

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

Bently BALANCE™ Technical Support Plan

3030/20-AXX

- A: Technical Support Plan
- 0 1 1 Year - Single License
 - 0 3 2 Year - Single License
 - 0 5 3 Year - Single License
 - 0 7 4 Year - Single License
 - 0 9 5 Year - Single License

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