



Product Specification Sheet

Real-Time Production Monitoring System for the manufacturing industry

Introduction

The Tracker is a time-proven real-time production monitoring system that has been on the market since 1991. Every input cycle is time-stamped and recorded in a daily log to be displayed and recalled in a user-friendly method. Approximately 45 matrixes are calculated and reported on. Tracker allows for users to add their own to suite their needs.

Applicable Manufacturing Processes

Any machine our output that produces a cyclic signal can be monitored. Including, but not limited to:

- Injection molding
- Blow molding
- Rotational molding
- Insert molding
- Assembly lines
- Robotics
- Stamping

Benefits

- Increase machine efficiency
- Decrease downtime
- Reduce job time
- Reduce waste
- Schedule PM's more efficiently
- Unite departments
- Deliver products faster
- See your whole plant at a glance even if you're not there

Flexible Architecture

Tracker's minimalistic .txt file structure allows for easy ERP and MRP system integration. Jobs can be rebuilt from any point in the past or scheduled to start at any point in the future. Departments have the ability to have individualized custom matrixes and calculations. The line status' reference colors can be customized to any of the 78 colors available. Each input can be renamed with a more familiar common name for easy reference.

Monitoring Capabilities & Pricing

Tracker monitors up to 48 inputs - \$15,500 USD

Mini Tracker monitors up to 16 inputs - \$9,800 USD

Tracker Evolution Software (*included with all new hardware purchases*) - \$4,900 USD

Multiple hardware units can be connected to the host server or PC as needed to accomodate any monitoring size demand.

Highlights

- Shift-based email and text alerts only alert the appropriate personnel. Tracker comes preprogrammed with downtime alerting and allows for unlimited custom alerts and contact groups.
- Mobile Access to the line status and job summary data from any device with an internet browser and internet connection. The mobile access program is stored on the users FTP server.
- Custom reporting with unlimited report presets allow for quick and accurate reporting. Export the report to a .csv file with 1 click.
- Users with more than one process to monitor are able to set up unlimited individualized departments and assign inputs to them with their own custom matrixes and calculations.
- Tracker's Access Database program includes two versions - a manual version that allows users to select jobs and matrixes to be included in the file, and an automatic version that updates a file every 5 minutes with all job and matrix data.

Simple Operations

Tracker Express is a simplified platform intended to be used as a workstation on the plant floor with all the necessary tools to increase efficiency. Operators can adjust reject counts, apply operator changes, close and start queued jobs. The line status and summary screen displays valuable information at the operators fingertips. A quick-reference scoreboard was designed to display color-coded line status and job information on plant floor overhead monitors. Upper management can take advantage of more advanced line status and summary applications. Job presets are saved to ease reruns.

Compelling Economics

Tracker is a non-subscription based system with no annual licensing fees, technical support or software update charges. Companies monitoring 48 inputs can potentially pay what it costs to purchase a Tracker system in less than 6 months, that's before the licensing fees are added on. This leads to a very favorable ROI.

Discounts & Payment Options

Bear Technologies, Inc. offers a 10% discount on all new system purchases when the purchase order is paid in full before shipping. NET 30 days is the typical payment arrangement, but a 0% APR payment plan spreading payment out equally over three months is also available.



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Hardware Installation

Tracker is hardwired to each input using a paired 18 - 20 AWG wire. One wire goes to any relay that changes from a (+) voltage to ground on each cycle state change. The other wire goes to ground. Each input is optically isolated allowing for both AC and DC inputs. DC voltage accepted: 12V - 30V. AC voltage accepted: 24V - 220V. Each input draws ~5 mA. The Tracker hardware unit is wired to the network via a USB cable which has a maximum run length of 10 feet, or a RS232 serial connection which has a maximum run length of 1,000 feet. RS232 to ethernet adapters can also be used in your network setup to connect multiple plant locations.

Software Installation

The Tracker Evolution software package can be downloaded from www.bear-technologies.com and the install wizard will guide you through the program installation. The program only needs to be installed on the host PC or server. Program applications are shared using Windows shortcuts to restrict privileges. Using a host PC allows for up to 20 simultaneous users. Using a host server allows for up to 1,000 simultaneous users.

Software Updates

Users are notified via email when a new software update is available for download on the Bear Technologies, Inc. website. Download the application then copy the updated version over the old version on the host system.

Support

Technical support is offered at no additional charge via phone or email. Remote sessions are available using TeamViewer or Microsoft QuickAssist for Windows 10 users. There are multiple videos on Bear Technologies, Inc. website outlining each application and their usage. Bear Technologies, Inc. writes their own source code which allows for quicker issue resolution.

Free Demo Available

Visit www.bear-technologies.com to download a free demo software.



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Maintenance Requirements

File maintenance is dependant on the user's storage availability. Archiving of data may be required quarterly, semiannually or annually. Annual inspections of the hardware unit connections is recommended.

System Requirements

Windows operating system running Windows 7 or later, or Server 2016 or later is required. Minimum computer requirements are Windows 7, greater than 2GHz processor, 8Gb RAM, 256Gb hard drive. Robust computer requirements are Windows 10, 3GHz processor or greater, 16Gb RAM, 256Gb solid state drive.

File Allocation

Typical daily data file storage size recording 1-second cycles is 3.5Mb (approximately 75000 records), 4-second cycles is 1Mb (approximately 20000 records), 8-second cycles is 500Kb (approximately 10000 records), 44-second cycles is 100Kb (approximately 2000 records).

Matrix Data

For a full list of matrixes visit www.bear-technologies.com. Matrixes can be added, removed or renamed from these choice default fields:

- current and previous cycle (0.000)
- job and shift runtime (0.000)
- job and shift cycle count (0)
- job and shift downtime (0.000)
- job and shift downtime occurs (0)
- job and shift average cycle (0.000)
- job and shift average efficiency (0.000)
- job and shift run cycle (0.000)
- job and shift run efficiency (0.000)
- job OEE availability and performance (0.000)
- job and shift parts made and rejected (0)
- job parts, hours and material to go (0)
- downtime and last downtime duration (0.000)

