



Predator MDC™

MANUFACTURING DATA COLLECTION



Reduce or Eliminate:

- Setup time
- Downtime
- Scrap

Improve:

- Job planning and quoting accuracy
- Personnel productivity
- Machine and resource usage
- Maintenance planning

Collect shop floor data, including:

- Setup time
- Cycle time
- Scrap
- Personnel time
- Break time
- Meeting time
- Preventive maintenance
- Machine downtime
- Tooling downtime
- Gauging downtime
- Material downtime
- Personnel downtime
- And more

Monitor your shop floor and improve productivity



GEARED FOR MANUFACTURING™

Predator MDC™



35 Upgradeable Configurations:

MDC/1 MDC/2
MDC/4 MDC/8
MDC/16... MDC/256

Standard Features:

- Manufacturing Data Collection
- Realtime Answers
- Flexible Data Collection
- Manufacturing-Specific Data Collection
- Reports and Graphs
- Database Flexibility
- Integrated Solution
- Data Collection Objects
- On-line Help

Optional Features:

- MDC Clients
- Machine Monitoring
- Custom Reports and Charts
- Oracle
- SQL
- VB SDK
- JAVA SDK
- C++ SDK

Manufacturing Data Collection

Need to track personnel and monitor your machine tool activity? Predator MDC (Manufacturing Data Collection), collects and reports on your three most important resources, your jobs, people, and machines. Seconds after the data is input, it becomes available enterprise-wide via reports and charts that accurately reflect the current state of shop floor productivity. For example, the Machine Status report displays the current state of every machine including if it is idle, in setup, production, or down. In addition, it displays the current job number and machine operator. Predator MDC can simultaneously monitor up to 256 CNCs per PC.

Realtime Answers

Have questions about your shop floor productivity? Predator MDC helps improve manufacturing processes by empowering decision makers with answers to many of manufacturing's toughest questions.

- *What jobs or parts are actually in production?*
- *How many pieces have been scrapped?*
- *Who is currently making parts? Which Shift?*
- *How is production time used?*
- *Which machines are actually making parts? In setup? Down? Or idle?*
- *What stops production?*
- *What does downtime cost?*

Job No.	Machine No.	Operator	Status	Start Time	End Time	Production Count	Scrap Count
1001	M001	J. Smith	Production	08:00	09:30	150	5
1002	M002	A. Jones	Setup	08:15	08:45	0	0
1003	M003	B. White	Down	08:30	08:30	0	0

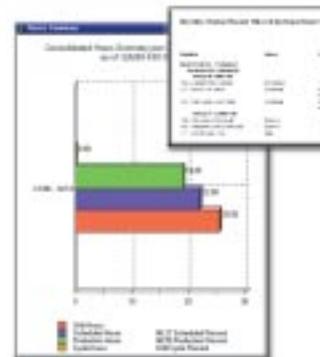
Answers to the above can be displayed from any PC with the ability to drill down to any level of detail. For example, a manufacturing engineer in the United States can query the status of an individual machine in Mexico to find out if it is currently in setup, making parts or down for maintenance. Answers are kept indefinitely and current results can be compared with previous job or part runs. Realtime answers leveraged against actual production history is becoming critical as enterprises go global. Answers based on actual manufacturing details facilitate faster decisions and increase productivity for every manufacturer.

Optional Machine Monitoring

Want to automate your data collection methods? Combine Predator MDC with Predator DNC™ or Predator Desktop™ to leverage your existing DNC network for automatic machine monitoring. Your existing Predator bar code readers, DNC hubs, Flex series hubs, Grizzly Cable™, and other appropriate network components are extended to support MDC. Predator MDC supports both software-based and hardware-based machine monitoring, or a combination of monitoring methods. The Predator based solution is open and not proprietary. It is easy to install, and minimizes cutting wires in your CNC control, voiding warranties, and ongoing maintenance concerns. Automatic data collection improves the accuracy of the data and minimizes the amount of input necessary from shop floor personnel.



With MDC, shop floor data can be captured from a number of sources including your CNC, a bar code reader, or your PC. Once the data is collected, MDC can help you organize the information and analyze it using one of more than 80 reports and graphs.



MANUFACTURING DATA COLLECTION

Flexible Data Collection

Need to collect data using a wide range of methods? Predator MDC can collect data from paper-based forms, networked PCs, bar code readers, CNC machines, PLCs, and a wide range of common manufacturing equipment. Input methods can be used individually or combined to form a specific data collection process to support assembly and machining-based manufacturing.

Manufacturing-Specific Data Collection

Tired of generic data collection solutions? Predator MDC is designed for manufacturers. It maximizes the unique capabilities of CNC machines, PLCs, and a wide range of shop floor devices to automate the data collection process. General purpose applications just don't provide enough details. With Predator MDC, every report and graph is designed to quickly convey manufacturing-specific answers.



Reports and Graphs

Want realtime reports and graphs on your shop floor productivity? Predator MDC includes more than 80 standard reports and graphs. Each report and graph has numerous options and filters to drill down to the appropriate level of detail. For example, the Machine Status report can be filtered to a specific department, location,



group, and machine. In addition, all charts have lots of customization options to reformat the chart display. All reports can be exported to Microsoft Excel® or HTML documents for further analysis or processing.

Database Flexibility

Frustrated with proprietary database engines? Predator MDC includes support for Oracle®, Microsoft Access® and SQL Server. Choose the database platform that is most appropriate for your needs. Predator MDC is designed to be flexible. Support for multiple manufacturing plants with a single database or multiple databases per facility is standard.

Integrated Solution

Tired of manufacturing software that does not work together? Predator MDC is a member of a suite of applications that are designed to share data and resources. Each application shares a common design philosophy based on Predator's unique understanding of manufacturing processes. Other Predator applications include Predator DNC, Predator Desktop, Predator Travelers™, Predator Tool Crib™, Predator Gage Crib™, and Predator Virtual CNC™.



Optional Hardware:

- PLCs
- Bar Code Readers
- Hand Held Terminals
- Grizzly Cable™
- BTRs
- CNC Adapters
- DNC Bundles
- Flex Bundles
- Flex/2 Bundles
- Flex/3 Bundles
- Flex/N Bundles

Partial List of Reports & Graphs included with Predator MDC:

- Cycle time analysis
- Machine status
- Machine events
- Machine time per resource or person
- Shift summary
- Production details per resource, person, part number, or job
- Good vs. scrap
- Good parts summary
- Downtime summary
- Productivity summary
- Hours summary



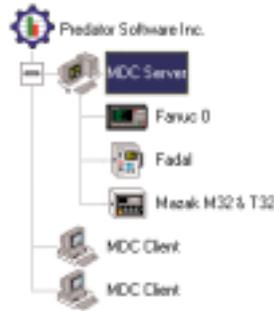
CNC Compatible:

- Allen Bradley
- Anilam
- Bandit
- Bendix
- Bridgeport
- Bosch
- Bostomatic
- Centurion
- Centroid
- Cincinnati Milicron
- Deckel
- Dynapath
- Emco
- Fadal
- Fagor
- Fanuc
- Fidia
- General Electric
- Giddings & Lewis
- Haas
- Heidenhain
- Hurco
- Kerney & Trecker
- Light
- Maho
- Mazak
- MDSI
- Mitsubishi
- Moog
- NUM
- Okuma
- Prototrak
- Roland
- Sharnoa
- Siemens
- Toshiba
- Vickers
- Yasnac

MDC Clients

Want client PCs to collect data or run reports?

On the shop floor, Predator MDC clients can collect data in a realtime or summarized method. In addition, engineers or management can use Predator MDC clients to run reports or graphs. An unlimited number of MDC clients can be run simultaneously or work together with other Predator client applications. MDC Clients work within your network structure and include full security so you can control who has access to input or report on the information.



Data Collection Objects

Need to collect data from a wide range of resources? Optionally, date and time stamp everything that's important to you. Predator MDC leverages the power of Predator DNC's or Desktop's unique command wizard and object manager to create specific data collection functionality to match your requirements.

Custom Data Collection

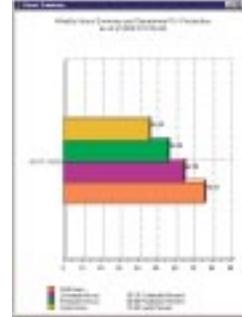
Have a custom or unique requirement? Predator MDC offers several optional SDKs, or software development kits, to enable anyone familiar with Visual Basic, Java or C++ to interface other applications, create custom MDC objects, or develop specific shop floor solutions. With our unique command wizard you will be able to

leverage all of Predator MDC's existing capabilities and only develop what is necessary for your specific requirements.

Custom Reports and Charts

Want to create your own reports or charts?

Custom reports and graphs that compare estimated data from accounting, ERP or MRP systems versus actual data can be developed with several third party reporting and charting tools, such as Crystal Reports and Microsoft Access.



On-line Help

Need help and no time to read the manual?

Predator MDC includes on-line help with concise and up-to-date documentation.

Service and Support

Who will help set me up and keep me operational? Predator Software products and services are available through a global network of 100 value-added resellers. As part of the Predator family, they can provide the expertise necessary to maximize your productivity with Predator MDC.

System Requirements

Windows® 98, 2000, NT and XP

- Intel® Pentium®-based processor or equivalent
- 128 MB RAM
- 40 MB hard disk space

CONTACT INFORMATION

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