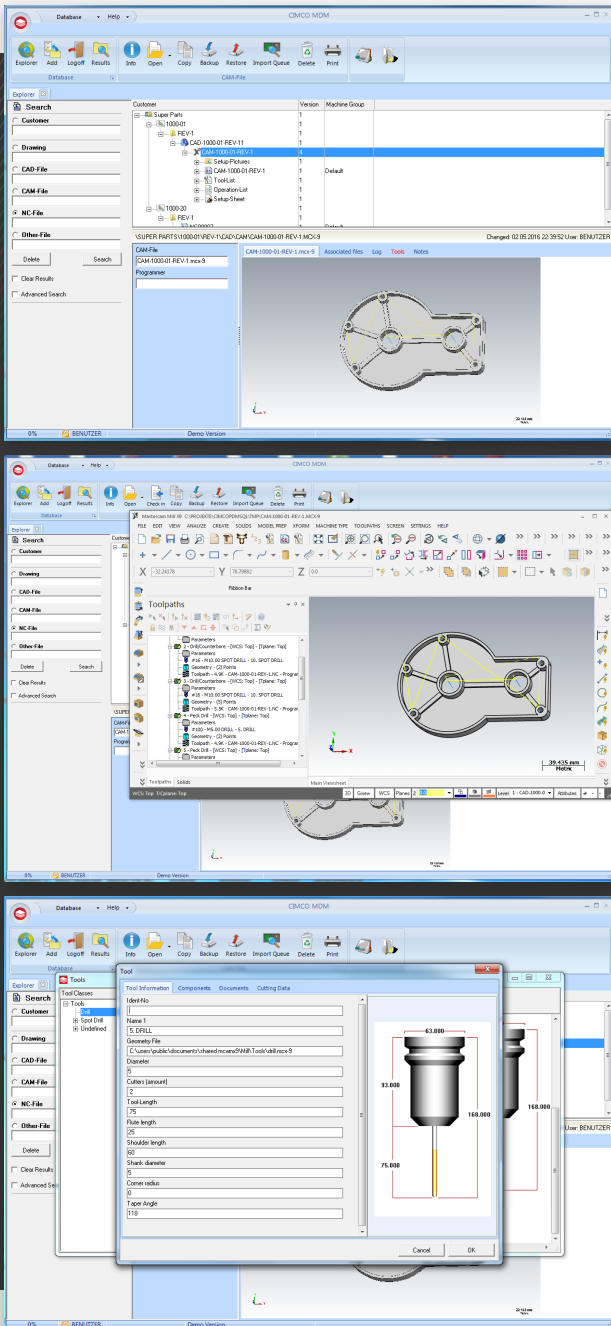


CIMCO MDM

MANUFACTURING DATA MANAGEMENT



INTEGRATED IN CIMCO NCBase
 INCLUDES CIMCO EDIT STANDARD
 VERSION AND REVISION CONTROL
 USER PERMISSION MANAGEMENT

DISTRIBUTED TEAMS / GROUP MANAGEMENT
 WEB CLIENT FOR SMARTPHONES AND TABLETS

GENERATE TOOL LISTS, SETUP SHEETS AND MORE
 STATUSHANDLING AND WORKFLOWS

EASY BACKUP AND RESTORE

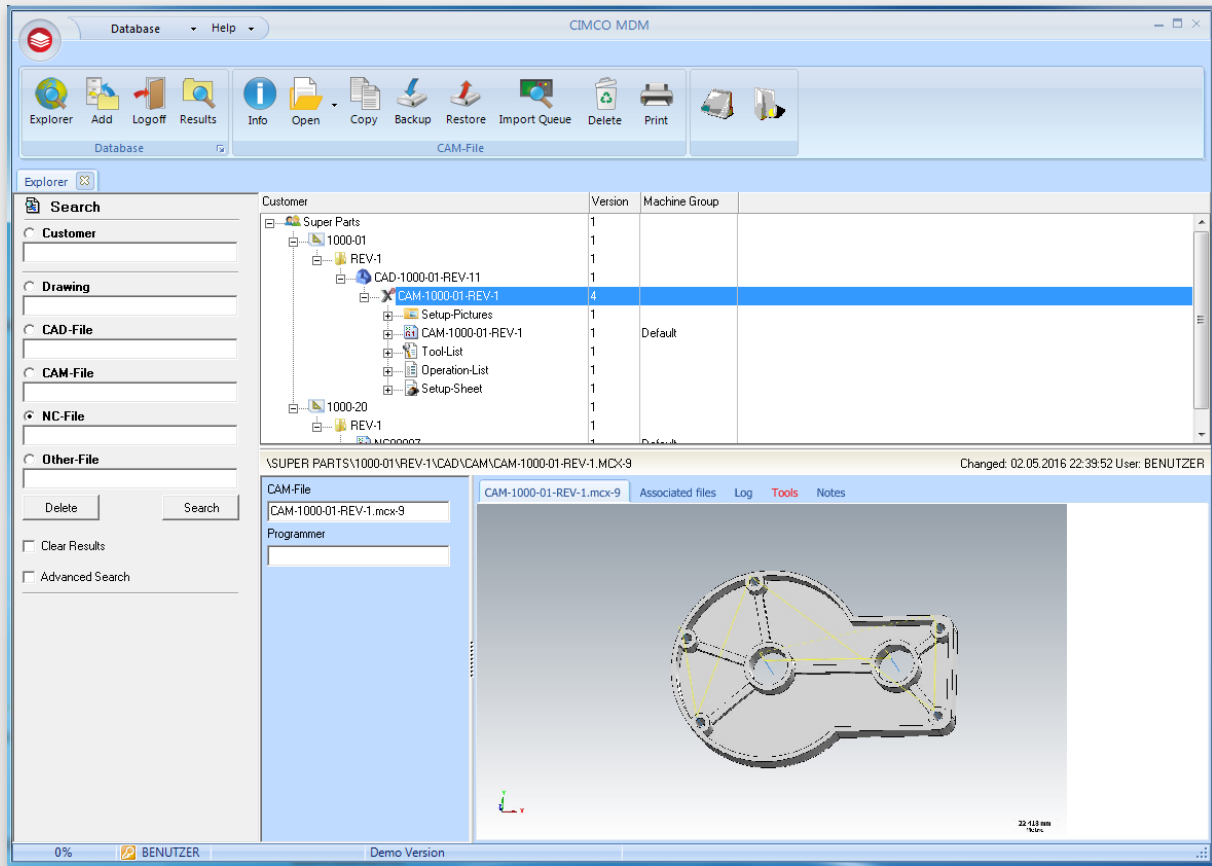
PROJECT MANAGEMENT

DOCUMENT MANAGEMENT

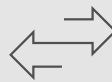
NC-CODE MANAGEMENT

DNC NETWORK CAPABILITIES

BARCODE READER SUPPORT



MDM

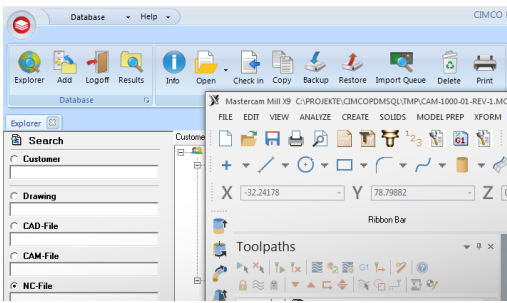


for all cad/cam systems

CIMCO MDM IS THE MANUFACTURING DATA MANAGEMENT SOLUTION FOR ALL SYSTEMS THAT HELPS YOU ORGANIZE AND MANAGE YOUR MANUFACTURING RELATED DOCUMENTS

Manufacturing companies often manage large amounts of project data such as CAD/CAM files, NC programs, setup sheets, tool lists, QA documents, and drawings. Not having all of this data securely stored, organized, and made accessible to team members can lead to wasted time, decreased production, and costly mistakes.

CIMCO MDM lets you manage all of your manufacturing related documents in one location on a central server. The solution has been developed to seamlessly integrate with NCBASE and provides file/folder restrictions, user permissions, automated processes, backup/restore, version control, and more. CIMCO MDM also integrates with other software applications and the machines in your setup.



INTEGRATED WITH NCBASE

CIMCO MDM has been developed from the ground up to integrate seamlessly with NCBASE. You can preview and open part files directly from MDM. Tool information is automatically exchanged and can be managed using the built-in Tool Manager - and exported to NCBASE later. Generated NC code is automatically stored in MDM.

Customer	Version	Machine
Super Parts	1	
1000-01	1	
REV-1	1	
CAD-1000-01-REV-11	1	
CAM-1000-01-REV-1	4	
Setup-Pictures	1	
CAM-1000-01-REV-1	1	Default
Tool-List	1	
Operation-List	1	
Setup-Sheet	1	
1000-20	1	
REV-1	1	

FAST AND EASY TO USE

MDM features quick-launch buttons for your vital applications and provides a compact overview of all production relevant documents at a glance. The fully customizable search panel delivers instant search results and uses advanced file indexing for more intelligent search results.

OpNo.	Operation	Title	Title No.	L-Offset	O-Offset	Feed 1	Feed 2	RPM
2	15. DRILL	2	2	300,480011	300,48001	1527		
2	16 3D SPOT DRILL	16	16	114,5	114,5	1145		
3	16 3D SPOT DRILL	16	16	114,5	114,5	1145		
4	100 S. DRILL	100	100	68,699997	68,7	1145		
7	100 S. DRILL	100	100	68,699997	68,7	1145		
5	160 3D DRILL	160	160	137,399994	137,39999	1145		

EFFICIENT AND AUTOMATED

Drag and drop files into MDM and they are automatically stored in the right location and logically renamed based on your preferences. CIMCO MDM automatically generates tool lists, operation lists, and setup sheets in Word or PDF format and automated workflows can be configured based on document status changes.

Version	Date	User	Name
3	02.05.2016 22:39:52	System	CAM-
2	02.05.2016 21:08:12	System	CAM-
1	02.05.2016 20:52:00	System	CAM-
1	02.05.2016 20:50:56	System	CAM-

TRANSPARENT FILE MANAGEMENT

With MDM you always get the right files - avoiding costly mistakes and wasted time. All documents are kept under version control and automatically raised in version when a file is saved. Easily browse file history for any file, compare versions side-by-side and restore.

Level Options	Level
<input checked="" type="checkbox"/> Is File	<input type="checkbox"/> Level is Machine group
<input checked="" type="checkbox"/> Machine Group	<input type="checkbox"/> Level is Customer
<input checked="" type="checkbox"/> DNC Option	<input type="checkbox"/> Level is Workpiece
<input type="checkbox"/> Tool List	<input type="checkbox"/> Level contains customer
<input checked="" type="checkbox"/> Prefer Machine Directories	<input type="checkbox"/> Work Orders
<input type="checkbox"/> Use machine settings	<input type="checkbox"/> Extract Tool Information
<input checked="" type="checkbox"/> Tools	<input type="checkbox"/> Enable Revisions

FULLY CUSTOMIZABLE

Since no setup is the same MDM has been developed to be fully customizable. It can be adapted to any existing workflow and be configured to work with existing software applications and machines. From the way data is structured and enforced to what exact search fields should be visible in the search panel - everything can be customized.

Group Name	Users
Administrators	ADMIN
Lead_Supervisor	DAVID,SAUL,DAVID FREEMAN,DONNY DI
Machine Shop	MACHINE SHOP,Joseph,JOSEPH THOMA
Programming	JOHNNY,GREG,WALTER BIRCHFIELD,GF
Programming_New	JOHNNY

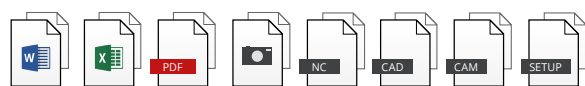
SECURE

MDM stores data in a secure SQL database and provides a flexible User Management and Permissions system that enables administrators to specify the level of access for users and groups. Easily define who can view, modify, approve, or delete certain documents and who can make backups, send/receive files to machines, and to which group of machines the authorization applies.

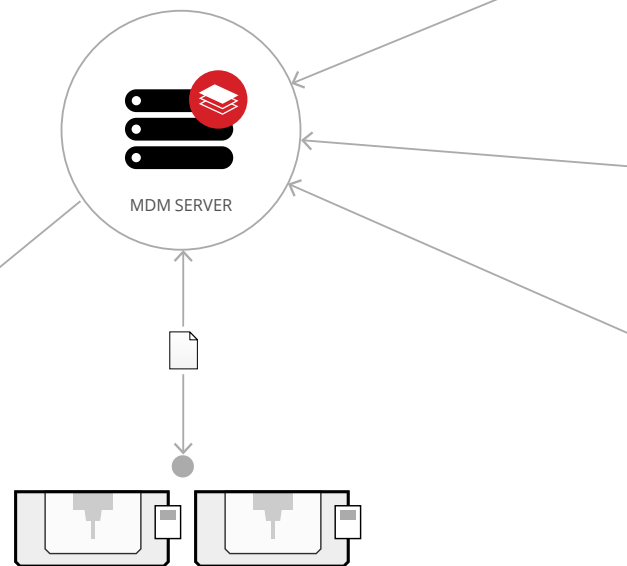
HOW IT WORKS

ARCHITECTURE

CIMCO MDM is a client/server based system consisting of the MDM Server, MDM Client, and the MDM Web Client. The MDM Server is the core component which handles a fast SQL database (also supports Microsoft SQL) and stores associated files. The MDM Client and Web Client run on PC and mobile devices and provide interfaces for managing documents on the MDM Server. In a small setup the server and client can run on the same PC.



ANY FILE TYPE CAN BE ASSOCIATED AND EITHER MOVED, COPIED, OR LINKED



TRANSFER FILES TO/FROM MACHINES OR REMOTE REQUEST DIRECTLY FROM THE CONTROL

DATA MANAGEMENT

CIMCO MDM organizes documents in a tree structure composed of levels that can easily be adapted to any workflow. The structure is visualized in a compact overview where root levels such as "Project", "Customer", or similar can be expanded to reveal child-levels and associated files.

LEVELS AND ASSOCIATING FILES

A level works like a virtual folder with special options for controlling what child-levels are allowed, how associated files are managed, what actions to perform upon level or file status changes, and more. Associated files can either keep their current location, if an external application requires this, or they can be copied/moved to the MDM Server.

LEVEL OPTIONS

The behavior of a level can be fully customized. This includes user permissions, what type of files can be associated, or what additional information to prompt the user for when files are added. For consistency, levels and files can be renamed automatically to ensure a logical and organized data structure.

Additional level options include automatic tool management and version control, DNC support, moving files to machine directories, and automatic child-level and file creation when a level is added.

SEARCH

Search is a key part of CIMCO MDM and provides a fast and easy way to find information in the data structure. MDM features a search panel with customizable search fields that change based on the selection in the data structure. Global fields remain visible while level fields can be customized for individual levels so only relevant fields are shown while browsing the data structure.

FILTER AND EXPORT SEARCH RESULTS

If a search provides multiple results these can be viewed in the Search Results window, and selecting a result reveals the desired item in the data structure. A local search field is also available for filtering results, and results can be exported to Excel for further analysis.

BARCODE READER SUPPORT

MDM comes with barcode reader support which can be a handy way to search. A barcode reader can help eliminate typing mistakes, keep naming conventions, and can offer a faster way to search. If scanning an unknown part number, this can be added automatically to save time. Further, a barcode reader can also be used to request NC programs directly from a machine.

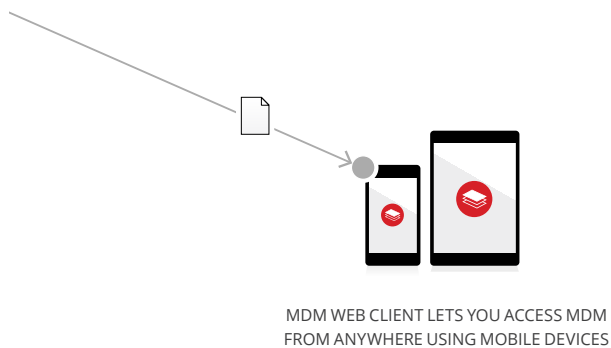
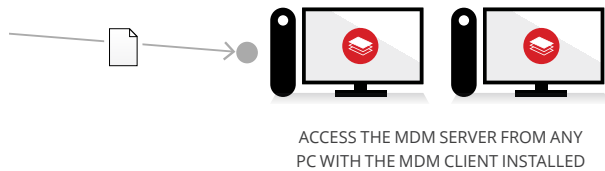
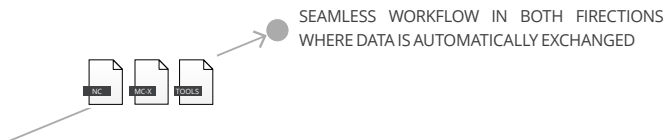
INTEGRATION

CIMCO MDM offers special integration for NCBASE that enables a seamless workflow in both directions. MDM supports multiple instances of NCBASE so users avoid having to start a new session each time a new part is opened, which can be slow and requires additional licenses. MDM can even preview NCBASE files without having one CAM Systems installed.

To manage tool information CIMCO MDM provides a built-in Tool Manager from where tools can be exchanged. Custom tools can also be created or imported from sources such as Excel files.

Templates can be configured for specific machine models in your setup to provide a faster workflow and save time when starting work.

The flexible nature of MDM enables it to integrate with most applications such as editors and DNC software from many leading vendors. MDM can even tap into other information systems as long as it can gain access to the files.



USER MANAGEMENT

CIMCO MDM provides a highly flexible and secure user management system that enables fine-grained control over user permissions. This ensures that the number of individuals that can change settings in MDM is limited and that regular users cannot accidentally change configuration settings, delete levels or associated files. To access MDM, users are always required to enter their login credentials.

USER PERMISSIONS AND GROUPS

User permissions can be defined for everything in CIMCO MDM and are configured with User Groups where users are assigned to one or more groups. Any level in the data structure can be configured so only authorized users can view, add, edit, move, or delete files - or add child-levels. Also, it can be configured who can initiate file transfers to and from machines and much more.

LOGGING USER ACTIONS

CIMCO MDM can also be configured to log user and machine actions such as program changes by users or machine file transactions. Logged data can be exported using the reporting options available in MDM.

DNC SUPPORT

CIMCO MDM offers DNC support for most network machines enabling file transfers in both directions. Files can also be requested directly from the CNC control using the Remote Request feature which enables an operator to import entire folders and files such as tool lists, setup sheets, and pictures without having to leave the machine. If MDM is configured to generate program numbers, the operator can also request a new program number when working on a new part that is programmed on the machine.

Machines are configured using Machine Groups that hold information about dedicated machine directories and the associated DNC communication port. Machine groups can be associated with levels in the data structure, so files in a specific level are restricted to being used only with a specific Machine Group. Also, files can be automatically copied to Machine Group directories when added in MDM.

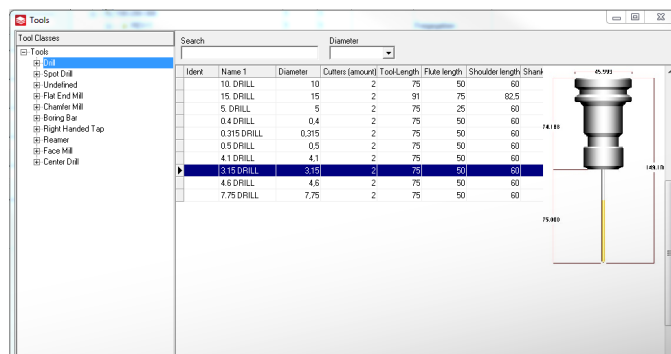
MORE FEATURES

VERSION CONTROL

The built-in version and revision control system in CIMCO MDM helps ensure that users are always working with the right version of a file.

MDM requires users to check-out files for local editing and automatically creates a new version each time a file is checked-in. On check-out, files become locked on the MDM Server eliminating the risk of users accidentally working on the same file. A complete version history is available for all files, and versions can be compared side-by-side with changes highlighted. MDM makes it easy to restore to a previous version while still keeping all versions in the history.

Revision control can be configured for any level in the data structure. This saves time since MDM will know what relevant child-levels and files to copy each time a new revision of a level is created.



MDM TOOL MANAGER

The MDM Tool Manager offers a central place for managing tool data and makes it convenient to exchange tools across applications. The Tool Manager includes search options and provides a great overview of each tool with tool data presented in a table and as a diagram with key measurements.

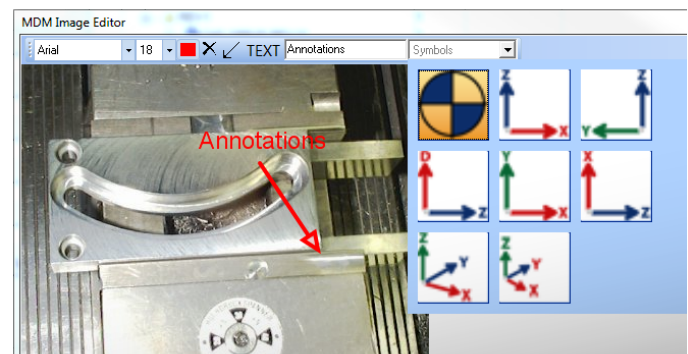
Tools can be imported and exported to a number of applications and MDM offers special support for exchanging tools with Mastercam. Custom tools can also be created or imported from sources such as Excel files. Often, tool vendors provide Excel formatted catalog data which can be imported.

Using the reporting options in MDM, reports can be generated for showing tool usage for specific projects or other statistics.

AUTOMATED WORKFLOWS

MDM comes with advanced options for automating processes based on document status changes. This enables MDM to e.g. lock or unlock NC files, set a transfer limit, send email notifications, or request a comment when a certain status-change occurs. Status changes can be combined with Access Modes and Workflows to offer a powerful and highly customizable solution for automating processes.

A status change can trigger a change in Access Mode for a specific level. That way, when a file is checked-in after an update, it can be locked automatically and access to the level restricted to a certain group of users – like Quality Assurance. Status changes can also trigger Workflows that define a number of Workflow Steps that are carried out in sequence either automatically or manually.



MDM IMAGE EDITOR

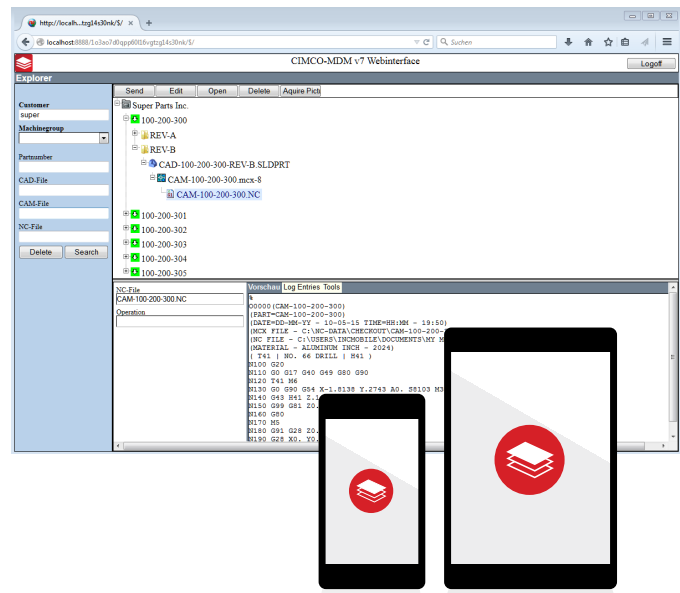
The MDM Image Editor provides image editing capabilities directly in MDM. This makes it easy to add annotations such as text, arrows, origin, and orientation to an image and eliminates the need for external image editing software.

The image editor can be accessed by right-clicking an associated image, and annotations can easily be laid out using drag and drop. When done, the image is automatically saved as a new version and the old is kept as a backup.

MDM WEB CLIENT

The MDM Web Client is a great solution for providing all the manufacturing information to the shop floor. Files (tool lists, setup sheets, etc.) can be viewed, edited, and sent to machines directly from a tablet or smartphone - and you can even use the camera of the mobile device to take pictures of your machine setup for future reference. When a picture is taken it is automatically sent to the MDM Server and stored in the right location.

The web client is primarily a viewer and offers the necessary functionality required in situations where a user is at a machine and does not have access to a PC with the MDM Client installed.

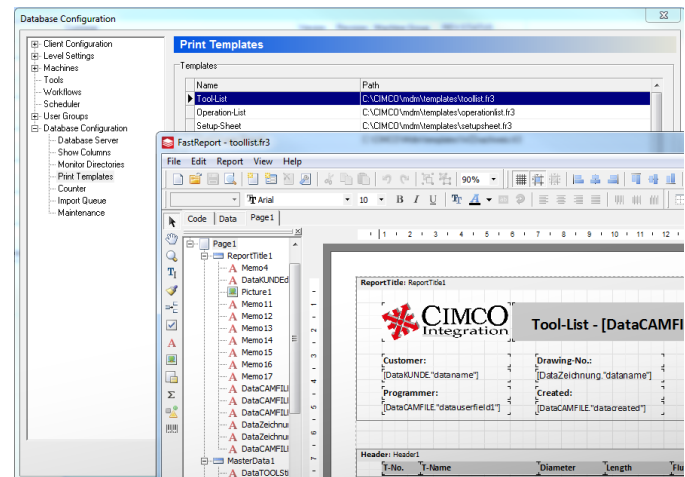


REPORTS

MDM offers a flexible reporting system that makes it possible to create any kind of report based on the information stored by MDM. Reports are generated from Print Templates and can be designed using the integrated report designer - FastReport©. Once a Print Template created, MDM automatically merges data from the server when generating a report and stores it under the correct level. Reports can be viewed in MDM, printed or exported to a number of file formats.

Below are some examples of reports.

- Reports containing text files or images
- Print DNC transactions (sent, received, requested, etc)
- Print MDM Server usage by user
- Print the entire data structure
- Print setup sheets, tool lists, operation lists, and more
- Print tool usage by project



INTEGRATION WITH CIMCO SOFTWARE



INCLUDED WITH MDM

A CIMCO Edit Standard is included with each CIMCO MDM Client providing the essential editing tools for working with NC programs.

Optionally, you can easily upgrade to the full version, CIMCO Edit Professional, which features the intelligent NC Assistant, backplot/simulation for both milling and turning, and much more.



CNC COMMUNICATION

For connecting to older CNC controllers with a serial interface or when using special network protocols, MDM can take advantage of the powerful features in CIMCO DNC-Max.



DATA COLLECTION

With CIMCO MDC-Max, MDM can show manufacturing statistics such as job time, number of parts, production time and downtime for parts, work orders or programs. Statistics are available directly in the MDM Client when selecting a program file in the data structure.



CIMCO is a leading developer of software and solutions for Computer Integrated Manufacturing including advanced CNC-Editors, DNC software for reliable CNC communication, Manufacturing Data Collection for real-time monitoring and analysis of shop floor productivity, and Manufacturing Data Management for managing, organizing and securely storing production related data.

Since 1991, CIMCO has helped companies worldwide improve their competitive edge by providing reliable software and outstanding on-site assistance. Our network of CAD/CAM/CNC resellers and consultants have sold more than 100,000 licenses worldwide and we hold great pride in continuously supporting and meeting our customers' demands by developing intelligent and competitive solutions.

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CIMCO HEADQUARTERS AND MAIN TRAINING FACILITY ARE LOCATED IN THE DANISH CAPITAL COPENHAGEN. THIS IS THE BASE OF OPERATION FOR THE SALES AND SUPPORT TEAM. OUR TECHNICAL SERVICE STAFF TRAVELS WORLDWIDE AND HAS LOCAL OFFICES IN SELECT COUNTRIES.

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 BELGIUM
 BULGARIA
 CROATIA
 CZECH REPUBLIC
 DENMARK
 ESTONIA

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 FRANCE
 GERMANY
 HUNGARY
 IRELAND
 ISRAEL
 ITALY
 LATVIA

NETHERLANDS
 NORWAY
 POLAND
 PORTUGAL
 ROMANIA
 RUSSIA
 SCOTLAND
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