



MoldTRAX

TRACK THE PAST. SECURE THE FUTURE.

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MoldTrax

Table of Contents

GETTING STARTED WITH MOLDTRAX	3
Installing MoldTrax on your computer	3
Things to consider to reduce the size of a picture	6
DETAIL MOLD INFORMATION BUTTON	8
Mold Tab	8
Tooling Tab	12
Layout Tab	14
IML Map Tab	16
TroubleShooters Guide Tab	17
Tech Tips Tab.....	19
Hot Runner tab	21
Notes Tab	24
Servicing Tab	25
MAINTENANCE TRACKING BUTTON.....	26
Lists of Common Scheduled and Unscheduled Stop Reasons	29
Defect Map Tab.....	30
Defects Tab	31
Corrective Action Tab.....	34
Lists of Common Corrective Actions.....	35
Action Review Tab.....	38
Maintenance Schedule Tab	39
TroubleShooters Guide Tab	41
Tooling List Tab.....	43
MASTER SCHEDULE	43
REPORTS	50
Statistical Reports.....	52
Reference Reports	58
FASTTRAX REPORTS.....	67
COMPANY INFORMATION BUTTON.....	80
Managing Company Tab	80
Customers Tab.....	82
Vendors Tab	84
Employees Tab	86
Document Control Numbers Tab	88
ADMINISTRATION BUTTON	90
Security Manager Button	90
All Drop Down Lists Button	96
Detail Mold Lists Drop Down Button.....	98
Maintenance Tracking Lists Drop Down Button	99
Using Digital Images in MOLDTRAX	102

GETTING STARTED WITH MOLDTRAX

MoldTrax is designed as a comprehensive maintenance system database that provides the user a means to track and analyze mold performance at the press and the maintenance of multicavity molds containing many plates and pieces of tooling. It comes with stand-alone Security features that allow you to control who can read, create, edit and delete the records within the database.

The new version of MoldTrax6 brings additional functionality to allow for larger screen resolutions, tracking individual part inventories and predictive maintenance alerts that can visually indicate when maintenance needs to be performed. Another new feature to note is a section specifically for Hot Runner Molds. This section will help allow Probes, Manifold temperatures and Pressures to be recorded and documented to help reduce plastic waste and reduce cycle times.

By utilizing the Defects and Correction Action fields, MoldTrax will automatically create many different reports that will allow you to calculate costs, track mold issues and employee performance.

Used in its simplest form, MoldTrax can serve as an electronic journal and track mold performance and maintenance through the Maintenance Instructions and Repair Comments text fields. You can then run several helpful reports tracking hours, cycles run etc.

MoldTrax data screens, work flow logic and reporting were designed to be easily understood by toolmakers, process and repair personnel. This database provides repair personnel fields to input specific procedures and techniques during repairs and transforms this data into reference information for creating manuals and troubleshooting guides. MoldTrax works on simple, single cavity and prototype molds along with rubber, blow, compression molds and various stamping and cutting dies.

It takes only a few steps to begin documenting mold performance and maintenance criteria into the MoldTrax system. Once molds are set and started with the appropriate worksheets in place, you will begin to archive valuable information simply through daily use of the system.

Installing MoldTrax on your computer

MoldTrax is a relational database based upon the popular Microsoft Access software program. This new version was designed to work with Microsoft Windows and can run with Microsoft Access 2007 or above. A royalty-free runtime version is available from Microsoft's website if you don't have an Access software license. MoldTrax6 was designed to be viewed with a screen resolution of 1600x900.

In order to run MoldTrax in the most efficient manner possible, the following minimum hardware recommendations are:

- Windows 7 or 8.1 (32 or 64 bit)

- 1.3 GHz processor or higher
- 3GB of memory
- 2 GB of hard disk space
 - the amount of space needed is highly dependant upon the quantity and sizes of any digital images stored within the MoldTrax database
 - the maximum size of any Access database (per Microsoft) is 2GB

Install MoldTrax6 as a stand-alone program

To install the MoldTrax6 database onto your local computer, simply copy the MoldTraxV6.accde file onto your hard drive and use the local copy of MS access to open it.

Install MoldTrax6 onto a server to share the file

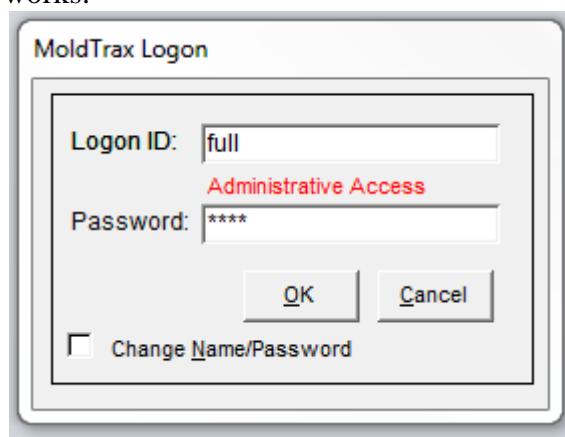
To install the MoldTrax6 database onto your server to share it with up to five other users; follow these steps:

- Copy the MoldTraxV6.accde file on your shared drive
- Verify each client licensed to run MoldTrax6 has access to the file share and their network logon ID should have Power User access to that shared subdirectory and the user should have read/write/execute/delete permissions in order to work properly
- Create a short cut on the client workstations to the MoldTraxV6 file on the shared drive.
- Remember every client licensed to run MoldTrax6 has to have the MS Access 2007 or later installed. The MS Access Runtime program available from Microsoft.com is also acceptable

Note:

Security is activated. There are 3 default roles specified to help get you started and understand how it works, the User ID (ID) & Password (PW) are listed below. Log in using the Logon ID of **full** and Password of **full** and setup several accounts per my instructions on page #79 of the MoldTrax User Guide PDF file. Be sure to change these once you have had a chance to receive training or become familiar with how MoldTrax security works.

ID	PW
full	full
editor	editor
read	read



Entering Mold Information

There are two methods to consider with data entry in MoldTrax:

One method is to pre-populate fields in MoldTrax with information already available to you from other sources. This information will come from a variety of sources such as the mold blue prints, Q/A documentation (defect terminology, flash limits,) process information (routed cycle times,) the mold builder and/or mold repair personnel (known defects, probable causes, corrective and preventative actions). Although MoldTrax requires only a minimal amount of information to begin tracking performance and maintenance, any information entered initially will only speed up data entry downstream, as molds are run, cleaned and repaired. Pre-populating fields will also allow you to generate and utilize all MoldTrax reports immediately.

The second method is the **Fast-Start** method; and concerns only entering in the required information that will allow you to immediately begin performance tracking at the press with the IML Sheet (Injection Mold Layout Sheet) found in the Reports Section under “Reference” and tracking maintenance performed with the REPAIR SHEET, found in the Reports Section under “Statistical”.

Steps to begin using the **Fast-Start** method:

Note: Be sure to log onto MoldTrax with Full Administrative access; so you can read/write/create/delete anything (including users)

1. Click the COMPANY INFORMATION button from the main menu.
 - a. Under the Managing Company tab, type in the name of your company, or the name of the company who will be using the software.
 - b. Click the Employee tab and enter the name of any employee who will be responsible for starting, stopping molds, making process adjustments, `blocking cavities, noting defects, servicing or performing maintenance` on molds in or out of the press. If you want to track costs associated with defect resolutions, then add the hourly rate of the employee in the “Hourly Rate” box.
2. Click the DETAIL MOLD INFORMATION button from the main menu.
 - a. Under the Mold Identification section of the Mold tab, type in the Mold Number, Part Description and Cycle Time (in seconds). **Note:** the Cycle Time is defined as the number of seconds it takes for the mold to open and close
 - b. Click on the Layout tab.
 - c. Type in the number of cavity Positions the mold has and the Active Part Number associated with each position. See the Cavity Position Number section of the Detail Mold Information section of the User Guide for an explanation of why this information is critical and how it is used.
3. Click the IML Map tab. (optional)
 - a. Paste a drawing of the face of the cavity plate you want to reference during the production run.

You can now create an IML Sheet that should stay with the mold until it is pulled or removed from the press. Other sections on the IML Sheet can be populated with the information it calls for at a more convenient time. See the Reference Report section of the User Guide for instructions on required fields, creating, printing and using this report.

4. When the mold is set in the press, be sure the appropriate IML Sheet is placed close by. It is recommended to place the IML Sheet in a protective plexi-glass sheet protector and fasten this to the access door on the operator side of the press with double faced tape or Velcro, or hang it on a standard clipboard.
5. The molding personnel starting up or processing the mold fills out the appropriate fields on the IML Sheet during the production run. The IML Sheet provides several specific areas to enter critical performance information.
6. When the mold is pulled, the IML Sheet travels to the tool room where the information from the IML Sheet is entered into the MAINTENANCE TRACKING section of the database. See the Maintenance Tracking Form Button section of the User Guide for field requirements when generating and using a Repair Sheet.
7. The mold repair technicians fill out this Repair Sheet during repairs. After the repair is completed, this information is then entered into the MAINTENANCE TRACKING section of the database, completing the run/repair cycle.

This is all that is needed to begin tracking mold performance and maintenance the MoldTrax way. As you get used to working with the database you will see how easy it is to add, organize, and extract critical mold data, building and archiving comprehensive historical data used daily in your shop.

As with all databases, it is critical to clean out old records and outdated information periodically. This frequency will be determined by your requirement of specific information that is usually dictated by run time (cycles) and repair complexity (multicavity). Typically, a technician will go back 3 or 4 run/repair dates to assess the condition of the mold and effectiveness of past defect resolutions.

Things to consider to reduce the size of a picture

Overview of reducing the file size of a picture

To save room on your hard disk drive and to decrease overall database file size and increase MoldTrax6 performance; you can reduce the size of the image by editing the picture by following one of the steps below and then Copying/Pasting the picture into MoldTrax6. You may be also able to optimize, compress or resize your images by using an external graphics-editing program, such as Adobe Photoshop or the free GIMP (<http://www.gimp.org>).

Here as an example, the Microsoft Office Picture Manager (found in MS Office 2010) will be used.

Compress the picture

Open Picture Manager and select the picture or pictures you want to compress.

Select Picture from the Menu bar at the top of the screen

Click the ‘Compress Pictures’ option

On the right side of the screen under Compress Pictures Settings, choose Documents or Web Pages

Then click the OK button

Resize the picture (change resolution)

Open Picture Manager and select the picture or pictures you want to resize.

Select Picture from the Menu bar at the top of the screen

Click the ‘Resize’ option

On the right side of the screen under Resize Settings, choose a predefined width and height or choose a custom width and height

Then click the OK button

Crop the picture

Cropping reduces the size of a by removing vertical or horizontal edges. Cropping is often used to hide or trim a part of a picture, either for emphasis or to remove unwanted portions.

Open Picture Manager and select the picture you want to crop

Select Picture from the Menu bar at the top of the screen

Click the ‘Crop’ option

Border icons should appear around the picture and these can be clicked and dragged in closer to the image desired

Then click the OK button on the right side of the screen

DETAIL MOLD INFORMATION BUTTON



Mold Tab

These are **REQUIRED** fields. You must have at least one **Mold Number**, **Part Description** and **Cycle Time** (the number of seconds it takes for the Mold to open then close) entered in the Mold Identification section. Items in italics, underlined and colored "***Red***" are part of the MoldTrax "**Fast Start**" and are required to archive data and generate reports and worksheets.

The Mold form will allow the Managing Company to track details and configuration information relating to a specific mold. As new Molds are added, a dynamic mold list is sorted on the left side of the screen and will track of all the molds in the database. Once a mold is selected from the list on the left side of the screen, the related information will display on the right side of the screen. This mold information is very important in most all of the reports used in MoldTrax.

Detail Mold Information

MOLD: 2010 (Electron Cover)

Mold ID: 289

Select Mold	Mold	Tooling	Layout	IML Map	Troubleshooter Guide	Tech Tips	Notes	Servicing																																																													
2010 57-684B	Electron Cover Quarter Cap	<table border="1"> <tr><td colspan="2">Mold Identification</td></tr> <tr><td>Mold Number</td><td>2010</td></tr> <tr><td>Part Description</td><td>Electron Cover</td></tr> <tr><td>Owner Mold ID#</td><td>8930-03</td></tr> <tr><td>Serial Number</td><td>8930-03</td></tr> <tr><td>Cycle Time Sec.</td><td>12</td></tr> <tr><td>Base/Style Type</td><td></td></tr> <tr><td>Department</td><td></td></tr> <tr><td>Product Line</td><td></td></tr> <tr><td>Product Part #</td><td></td></tr> <tr><td colspan="2">CounterView™</td></tr> </table> <table border="1"> <tr><td colspan="2">Mold Cavity Configuration</td></tr> <tr><td>Resin Type</td><td>ABS</td></tr> <tr><td>Runner Type</td><td>Cold runner</td></tr> <tr><td>Total Cavity Count</td><td>12</td></tr> </table> <table border="1"> <tr><td colspan="2">Mold Flow Paths</td></tr> <tr><td>Nozzle Size</td><td>.350</td></tr> <tr><td>Sprue Size</td><td>.325</td></tr> <tr><td>Runner Size</td><td>.325</td></tr> <tr><td>Gate Size</td><td>.050</td></tr> </table> <table border="1"> <tr><td colspan="2">Customer Client Information</td></tr> <tr><td>Client Info</td><td></td></tr> <tr><td>Comments</td><td>Enter any customer client notes!</td></tr> </table>	Mold Identification		Mold Number	2010	Part Description	Electron Cover	Owner Mold ID#	8930-03	Serial Number	8930-03	Cycle Time Sec.	12	Base/Style Type		Department		Product Line		Product Part #		CounterView™		Mold Cavity Configuration		Resin Type	ABS	Runner Type	Cold runner	Total Cavity Count	12	Mold Flow Paths		Nozzle Size	.350	Sprue Size	.325	Runner Size	.325	Gate Size	.050	Customer Client Information		Client Info		Comments	Enter any customer client notes!	<table border="1"> <tr><td colspan="2">Mold Contact Info</td></tr> <tr><td>Manufacturer Name</td><td>Molds R Us</td></tr> <tr><td>Manufacturer Phone:</td><td>419-289-0281</td></tr> <tr><td>Engineer First Name</td><td>Eric</td></tr> <tr><td>Engineer Last Name</td><td>Johnson</td></tr> <tr><td>Engineer Phone</td><td>419-289-0281</td></tr> <tr><td>Date Mold Built</td><td>1/2/1972</td></tr> <tr><td>Date Acquired</td><td>9/26/2005</td></tr> <tr><td>Purchase Price</td><td>\$230,433.00</td></tr> <tr><td>Date of Inactivity</td><td></td></tr> </table>	Mold Contact Info		Manufacturer Name	Molds R Us	Manufacturer Phone:	419-289-0281	Engineer First Name	Eric	Engineer Last Name	Johnson	Engineer Phone	419-289-0281	Date Mold Built	1/2/1972	Date Acquired	9/26/2005	Purchase Price	\$230,433.00	Date of Inactivity	
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The fields to complete are:

Mold Identification

Mold Number

Enter Mold Number.

Part Description

Enter the component name of the Part that the mold makes.

Owner Mold ID#

Enter the Owner Mold Number of the mold (if applicable).

Serial Number

Enter the Serial Number of the mold (if applicable).

Cycle Time Sec

This is required in order for the Available and Total Cycles fields on the Maintenance Tracking screens to calculate and display data. Enter the number of seconds for one cycle completion. **Note:** the Cycle Time is defined as the number of seconds it takes for the mold to open and close

Base/Style Type

Enter in Your Specific Mold Base Category. (MUD frame, 2-plate, 3-plate, etc...). These can be entered on the fly at any time. Avoid lengthy explanations here and be sure it is accurate and spelled correctly. *To delete an entry from this list you must find all records that contain this entry and remove it.*

Department

Enter Department having mold responsibility.

These can be entered on the fly at any time. Avoid lengthy explanations here and be sure it is accurate and spelled correctly. *To delete an entry from this list you must find all records that contain this entry and remove it.*

Product Line

Select the Product Line that this mold produces parts for.

These can be entered on the fly at any time. Avoid lengthy explanations here and be sure it is accurate and spelled correctly. *To delete an entry from this list you must find all records that contain this entry and remove it.*

Product Part Number

Enter the name of the Part Number/s that this mold produces.

These can be entered on the fly at any time. *To delete an entry from this list you must find all records that contain this entry and remove it.*

Counter View

Enter the I.D number from a Progressive Components cycle counter. By clicking on the blue Counter View font, you will be automatically taken to the Progressive Components web site, <http://www.profilecv.com>

Mold Cavity Configuration

Resin Type

Enter Resin Type used in the mold.

These can be entered on the fly at any time. Avoid lengthy explanations here and be sure it is accurate and spelled correctly. *To delete an entry from this list you must find all records that contain this entry and remove it.*

Runner Type

Select the Runner Type/Configuration of this mold.

These can be entered on the fly at any time. Avoid lengthy explanations here and be sure it is accurate and spelled correctly. *To delete an entry from this list you must find all records that contain this entry and remove it.*

Total Cavity Count

Enter the Total Number of Cavities in the mold.

Mold Flow Paths

Nozzle Size

Enter in the press Nozzle Orifice Size specified for this mold

Sprue Size

Enter in the “O” diameter (smallest diameter of a tapered sprue) of the mold.

Runner Size

Enter in the size of the cross section of the Runner.

Gate Size

Enter in the size of the cross section of the Gate for the cavities.

Mold Purchase Info

Manufacturer Name

Enter the Name of the Manufacturer.

Manufacturer Phone

Enter the Manufacturer's Phone Number.

Engineer First Name

Enter in the First Name of the Project Engineer that built or has responsibilities for this mold.

Engineer Last Name

Enter in the Last Name of the Project Engineer that built or has responsibilities for this mold.

Engineer Phone

Enter in the Phone Number of the Project Engineer that built or has responsibilities for this mold.

Date Mold Built

Enter in the Date the mold was built.

Date Acquired

Enter the Date the mold was purchased or acquired by the responsible company.

Purchase Price

Enter the Purchase Price of the mold.

Date of Inactivity

Enter the date that the mold was removed from service (inactive) or left the plant.

Comments

Enter any miscellaneous Comments about the mold.

Customer Client Information

Client Info

Select the Client. This list of names is composed from the list of Customers from the Company Information tab.

Comments

Enter any Comments or notes about the mold or Client.

Tooling Tab

The Tooling form will allow the Managing Company to track information relating to the Tooling contained within a specific mold. Once the mold is selected from the list on the left side of the screen, the related tooling information will display on the right side of the screen.

All fields in this section (Part #, Detail # and Vendor) can be double clicked (zoomed) into a large Notes Field for easier data input. Tooling information can be entered directly from this tab or on the fly from the Tooling Tab located in the Maintenance Tracking Section. Tooling is automatically sorted first by “Type” then by “Description”. If you have a lot of tooling entered, it is helpful if you configure your tooling list by most frequently used for faster scrolling later on in the Maintenance Tracking Section. Tooling is sorted by “Type” first, then alphabetically.

To add new tooling, simply click the star button at the bottom of the field, (see arrow) noted in the screen shot below.

Type	Description	Part#	Detail #	Vendor	Cost	Parts on Hand	Reorder Level	# Ordered	Date Ordered	# Received
Cavity	40 MM Change-over kit	40MM92379-1	40MM	In-House	\$0.00					Add Parts Received
Cavity	C.H. Core Pin Also used in the 1556 mold. See Tech Tips for polishing and handling instructions.	738838-93	1555-23	Tooling R Us	\$890.00					Add Parts Received
Cavity	C.H. Stripper Ring Must be ground to fit each pocket	7488944-32	1555-34	Tooling R Us	\$134.00					Add Parts Received
Cavity	H.H Gate Insert NEW CAVITY NUMBER II 420 SS 52-54 Rc See Tech Tips for polishing and handling instructions.	7388377	1555-45	Tooling R Us	\$234.00					Add Parts Received
Cavity	H.H. Core Pin See Tech Tips for polishing and handling instructions.	7488847-93	1555-47	Tooling R Us	\$2,500.00					Add Parts Received

The fields to complete are:

Type

Dropdown selection:

Select the Tooling Type: Frame, Cavity or Procedure.

MoldTrax allows you the option of separating tooling into categories for more complete tracking and analysis. This section is pre-populated with 3 choices although you may at any time add your own preferences. Avoid lengthy explanations and be sure it is accurate and spelled correctly. *To delete an entry from this list you must find all records that contain this entry and remove it.*

1. Cavity Tooling is typically any tooling that forms the part, i.e.; A & B side Cavity Blocks, Sleeves, Core Pins, Cavity Ejector Pins, Gate Insert etc.
2. Frame (or Mold Base) Tooling is everything else i.e.; pins, bushings, interlocks, springs, horn pins, plates etc.

3. Procedure should be selected when NO tooling used in the repair of the defect, and the corrective action is instead a specific procedure such as cleaning, welding, stacking, polishing, shimming etc. that is listed under Corrective Action.

For example, if you want to designate a specific corrective action to a repair that does not require replacing tooling, select “Procedure” under Type and type in “No Tooling Used” or “No Tooling In Stock” in the blue Description field. This helps to clarify reports used later on. Once these are entered, they will be displayed in the drop-down box under “Tooling”.

Description

Enter the Description of the Tooling part. Double click to enlarge text field.

Part #

Enter the Part Number for Tooling from the manufacturer. Double click to enlarge text field.

Detail #

Enter the Print Detail Number for Tooling from the manufacturer. Double click to enlarge text field.

Vendor

Enter the Name of the Vendor that supplies this part. Double click to enlarge text field.

Cost

Enter your Cost of the Tooling.

Parts on Hand

Enter the current quantity of Parts that are in stock

Reorder Level

Enter the lowest number of Parts that should be allowed before replacement Parts are ordered

Ordered

Enter the number of Parts that have been ordered

Date Ordered

Enter the Date that the Parts were ordered

Received

Enter the number of Parts that have received, and then click the Add Parts Received button

Add Parts Received button

Click this button to force the # Received to be added to the Parts on Hand

Layout Tab

The Layout form will allow the Managing Company to track information relating to the Cavity I.D Numbers relative to Positions of the Tooling within a mold. Once the mold is selected from the list on the left side of the screen the related Cavity I.D number and the Position that it is, or was located in, will display on the right side of the screen.

Active	Cavity ID	Date Installed	Date Removed	Notes
<input type="checkbox"/>	E1	3/5/2003	10/3/2003	See the User Guide for more information on using th
<input checked="" type="checkbox"/>	E13	10/3/2003		

The fields to be completed are:

Cavity Position Number

Enter the Cavity Position numbers that your mold has. Use the “arrow keys” at the bottom of the screen (see arrow) to add the Position Numbers.

For example, if you have a 16 cavity mold your Cavity Position Numbers (noted on the screen shot) will be typed in from 01 through 16. These numbers are usually stamped on all your molds plates and engraved into all tooling that corresponds to a specific position usually starting from an “O” reference corner of the mold. These numbers should never be changed. This maintenance practice will insure that all tooling is returned to its home “position” after removal for cleaning etc. Whenever defective tooling is removed, the Position number should be re-engraved or etched on the new tooling being installed.

After these numbers are entered, highlight them one at a time, enter the corresponding Part I.D number, and “check” the Active Number box.

Part I.D. numbers are usually stamped or engraved into mold Cavity Tooling and form the number on the produced part. Cavity tooling that molds the Part Identification number should be tracked to a specific position in the mold to help identify defect patterns and trends quicker.

Each of these positions will have an Active Cavity Part Number that corresponds to this location such as A1, A2, F6, and H22 and so on.

If the tooling that molds the Part Identification number is replaced, you can track all the Part Identification numbers that have resided in that position, since the Position Number never changes.

For tracking part or mold defects not containing a Part I.D number, and to track specific AREAS of a mold, you can type in a short name in the Cavity Position box such as N/A, Random, All, or Jaw 1, Jaw 2, Cam 1A, Cam 2A, Probe 1, Heater 1 and so on. This allows you to track specific problems that occur in cam slides, and retainer blocks that house many pieces of tooling. This design feature allows you track any specific tooling component by assigning it an appropriate number, letter or short name referenced to a specific position number.

Active

Place a check in this box to indicate the Cavity Part Number that is currently active.

Part #

Enter the Part ID number installed in this Position.

Date Installed

Enter the date the Tooling was installed at this Cavity Position

Date Removed

Enter the date the Tooling was removed from this Cavity Position

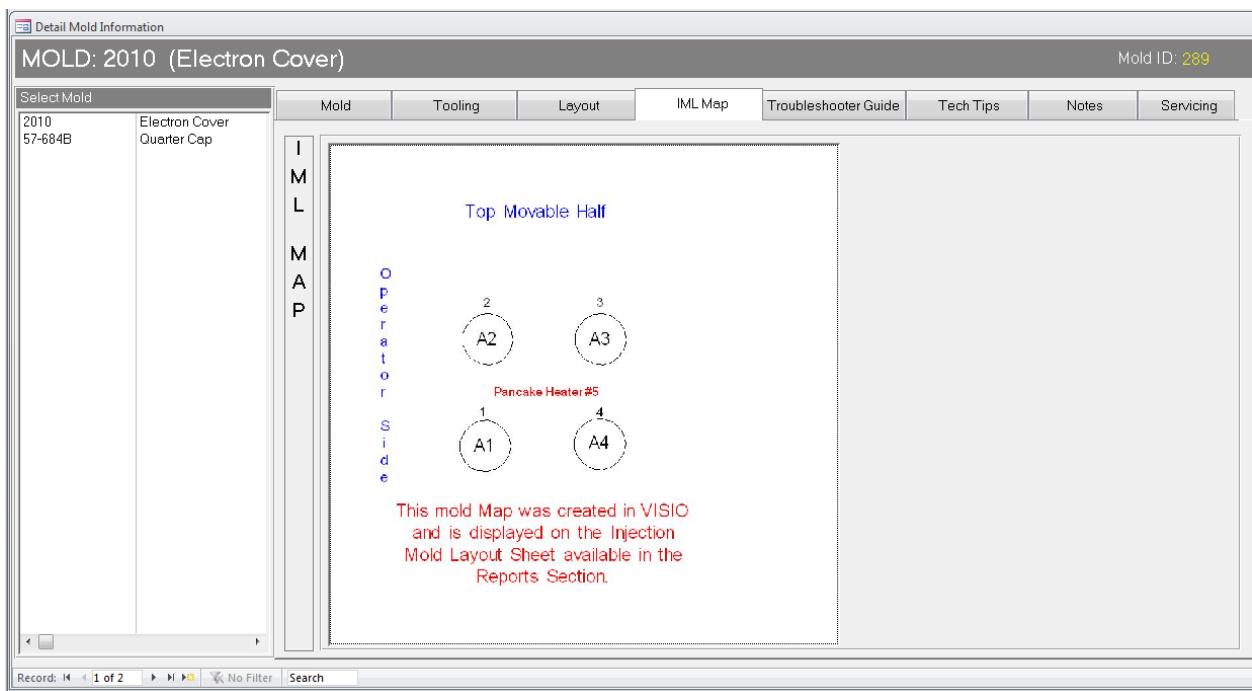
Notes

Enter any notes about the Tooling within this Cavity. (why it was removed etc...).

IML Map Tab

This form (Injection Mold Layout) allows you to paste a detailed drawing or graphic image of the mold into the single field. Once the mold is selected from the list on the left side of the screen the related IML Map will display on the right side of the screen. This IML Map is used only for the IML Sheet that is utilized at the press.

The IML Map is an extremely valuable tool used to portray critical information such as Mold Part Numbers, Position Numbers, and Heater and Probe locations, runner, diagrams etc. at the press. Utilize color IML maps whenever possible. Once you construct your mold map, in your favorite drawing software, simply copy and paste it into the IML Map section. To position the image (left, right, centered, etc...) in the IML Map area on the IML Sheet, box the image within the drawing program that you are using, and adjust to fit the IML Map area.



TroubleShooters Guide Tab

The TroubleShooters Guide form will allow the Managing Company to collect information relating to the Type, Explanation, Image, Probable Cause, Corrective Action and Preventive Action of any defects or problems of the specific mold. Once the mold is selected from the list on the left side of the screen the related TroubleShooters Guide will display on the right side of the screen.

The TroubleShooters Guide is used to guarantee that any problems or defects the mold has experienced, is documented for an accurate approach to future defect resolution. You can further categorize defects by selecting one of the choices in the drop down or add your own.

List your cleaning levels here to track the costs of cleaning molds that do not require repairs. List them as “Mold” defects and give a quick description of what is disassembled and at what hour or cycle count. For instance a “General Cleaning” might occur at 150,000 cycles and involve only specific plates or tooling. A “Major Cleaning” might occur at 500,000 cycles and involve disassembling the whole mold. By tracking the time involved to clean molds, you can cost justify equipment such as ultrasonic cleaners, ice blasters etc.

Any item or event that you want to track specifically for labor and/or costs can be added to the TroubleShooters Guide as a defect. Consistency and accuracy in repairs will be greatly enhanced utilizing the TroubleShooters Guide. It also serves as an excellent training guide for new employees.

Note: Defects can ONLY be entered in this section, and are then portrayed in the drop-down box in the Maintenance Tracking section under the “Defects” tab. This design feature promotes defect terminology consistency and a “root cause analysis” approach to defect resolution among employees.

Detail Mold Information								
MOLD: 2010 (Electron Cover)		Mold ID: 289						
Select Mold		Mold	Tooling	Layout	IML Map	Troubleshooter Guide		
2010 57-684B	Electron Cover Quarter Cap	No	Type	Defect Term.	Defect or Task Explanation	Probable Cause	Corrective Action	Preventative Action
		1	Part	Flash on Flange	Flash < .015 from the Flange end of part DOUBLE CLICK IMAGE (or any of these 5 fields) TO ENLARGE!	1. Worn H.H. Cavity or H.H. Cavity Housing 2. Residue buildup between H.H. Cavity face and H.H. Cavity Housing	1. Examine tooling fit under microscope and replace worn component 2. Clean mold.	Do a complete Last Shot Inspection of all parts before repairing mold
		2	Part	Long Gate	Plastic sticks out past the skirt more than .015 from the core end of part	1. Valve Pin tip to Insert Gate fit NAS. Usually a worn H.H. Gate Bushing 2. Worn Valve Pin 3. Worn Piston Cup O-Rings	1. Check fit of Valve Pin to Gate Insert under microscope Interchange new tooling with old to determine which piece is worn out. 2. Replace piston cup o-rings.	Do a complete Last Shot Inspection of all parts before repairing mold.
		3	Mold	Hot Core	Core gets hot during production DOUBLE CLICK IMAGE TO ENLARGE!	1. Bent Bubble or an obstruction as shown in the image. 2. Water hooked up wrong.	1. Clean and replace bent or damaged Bubble, 2. Verify correct water hookup.	DO NOT USE TEFLON TAPE ON PIPE FITTINGS AND EXERCISE CAUTION WHEN ASSEMBLING THE BUBBLERS INTO THE CORES. THEY ARE EASILY BENT OR DAMAGED. SEE ASSEMBLY
		4	Part	Flash Top Skirt	Excess plastic (more than .002) sticking out vertically from the Top of the Skirt.	1. Worn H.H. Cavity or H.H. Cavity Housing 2. Residue buildup between H.H. Cavity face and H.H. Cavity Housing.	1. Examine tooling fit under microscope and replace worn component 2. Clean mold	Replace Pins and Bushings every 750,000 cycles. 250,000 Cycle for repair frequency
		5	Electrical	Bad Probe Heater	Probe Heater not responding or heating properly.	1. Heater bad	1. Hook up controller and test for a bad heater. Replace	

Fields to be completed are:

No. - Number

Enter the sequence or priority Number of the record. This will allow you to order or prioritize the TroubleShooters Guide report providing that the most common or critical documents are sorted first.

Type

Select the Type of defect from the drop-down list. The Types are dynamic and can be specified by the user. Once a problem Type is entered into this field, it will be 'remembered' so that this Type can be selected again on future TroubleShooters Guide documents. Use descriptions such as Mold, Part, Process or No Defects. Choose descriptive terms carefully. Avoid lengthy explanations here and be sure it is accurate and spelled correctly. *To delete an entry from this list you must find all records that contain this entry and remove it.*

Defects

Enter the name of the observed Defect that will be documented within this record.

Image

For further clarification you can add a digital picture or graphic drawing of the part or defect documented within this record. See Adding Images in the Getting Started With MoldTrax section. Double click to enlarge the image.

Problem Explanation

Enter a description or explanation of the observed defect. Double click to enlarge text field.

Probable Cause

Enter a description or explanation of the Probable Cause of the defect. If there are several Probable Causes, it is helpful to number and list them. Double click to enlarge text field.

Corrective Action

Enter a brief description of the solution or the Corrective Action taken to resolve the problem or defect. If there are several Corrective Actions, number and list them in reference to the Probable Cause list. Double click to enlarge text field.

Preventative Action

If known, enter a brief description of the steps necessary to prevent this problem or defect from occurring again. If known, address the "root cause" of the problem in this section. If there are several Preventative Actions, number and list them in reference to the Corrective Actions list. Double click to enlarge text field. This is a good field to specify at what cycle count critical tooling should be changed or procedures followed.

Tech Tips Tab

The Tech Tips form will allow the Managing Company to document standard practices, procedures or sequences to be taken with a specific mold. Once the mold is selected from the list on the left side of the screen the related Tech Tips will display on the right side of the screen. The Tech Tips document is used primarily to insure that special practices, procedures or sequences are known and followed during the Disassembly, Assembly, Cleaning, Final Check or Polishing steps of the mold. There is also a Tool Kit tab for listing special tools, jigs or fixtures used during the above steps. This in turn promotes safety, consistency, accuracy and efficiency during difficult and complex repairs.

New to MoldTrax6 is a section called **HR Specs**, specifically for Hot Runner molds to help track Probe Types, Operating Temperatures and Pressure measurements.

MOLD: 2010 (Electron Cover) Mold ID: 289

Select Mold	Mold	Tooling	Layout	IML Map	Troubleshooter Guide	Tech Tips	Notes	Servicing																																																																																			
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Record: 1 of 2 Search																																																																																											

Fields to be completed are:

Mold Specs

Height

Enter the mold base Height.

Width

Enter the total Width from the “A” to the “B” side of the mold in the closed or “molding” position.

Depth

Enter the Depth from the operator side across to the opposite operator side.

Weight

Enter the Weight of the mold.

Width Open

Enter the Width of the mold in full open position.

Ejector Stroke

Enter the maximum travel of the ejector plate controlled by the press.

Total Height

Enter the total height of the mold, including the hydraulic cylinders or other attached components.

Last Shot Image Diagram of Part

Insert Bitmap (BMP) image or drawing of the Product Part. This image is displayed on the Last Shot Inspection report. Highlight areas of the part that requires periodic inspection. Double click to enlarge text field

Image or Diagram of Mold

Insert a Bitmap image (BMP) or drawing of the entire mold or any part of the mold that you might want available for reference. Double click to enlarge text field.

Disassembly

Enter the steps to be followed for safe and proper disassembly of the mold. Specify procedures concerning the order of component removal or plates that need to be separated in sequence.

Cleaning

Enter the steps to be followed for safe and proper cleaning of the mold and to clarify procedures or techniques.

Assembly

Enter the steps to be followed for safe and proper assembly of the mold. Specify procedures concerning the order of component installation or plates that need to be assembled in sequence.

Final Check

Enter the steps to be followed for proper Final Check of the mold before it is to be sent back to production, racked, or tagged for release.

Tool Kit

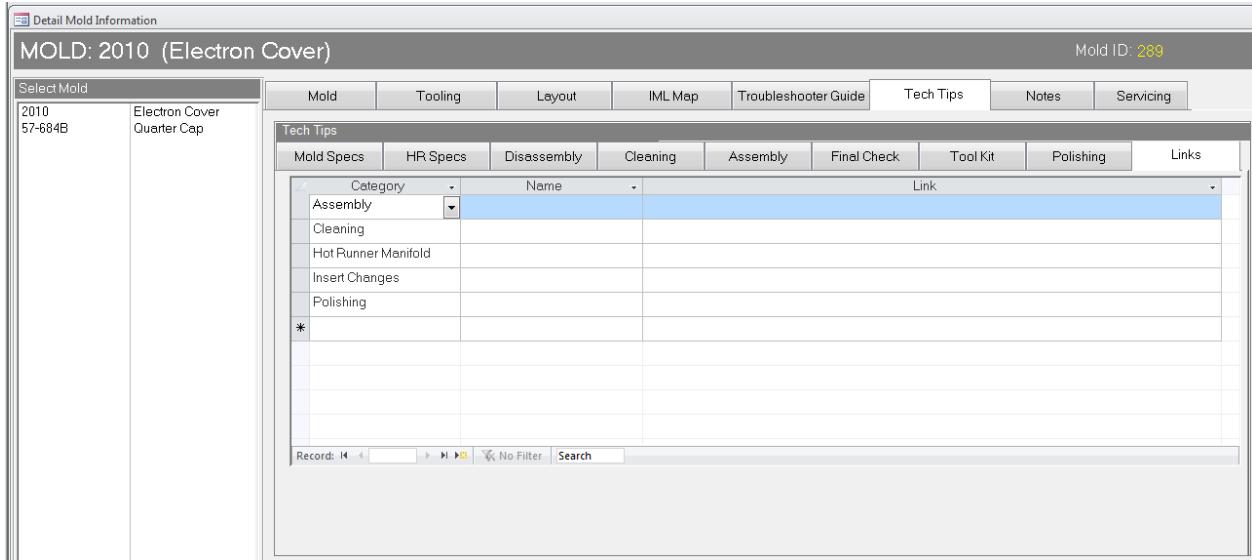
Enter any special tools, jigs, fixtures, and electrical controllers etc. to be used on the mold.

Polishing

Enter the steps to be followed for safe and proper Polishing of the mold and to clarify procedures or techniques.

Links

Enter the Tech Tip Category, Name and Link to an external file or image. In some cases, the tabs within the Tech Tips sections, (Disassembly, Cleaning, Assembly, etc) might not be enough to contain all the details for a particular mold. The Links section can be a reference section where you can 'point' to existing, supplemental or SOP documentation regarding the mold. These links or pointers can reference files hosted on internal network file shares or external Internet URLs.



Category	Name	Link
Assembly	Cleaning	
	Hot Runner Manifold	
	Insert Changes	
	Polishing	
*		

Note: Once digital pictures of molds have been taken, the MoldTrax6 user will want to **LINK** to the picture instead of embedding (copy/pasting) into the database for size and speed considerations.

This can be done any number of ways; here is one suggestion:

- Create a folder called PICS within the folder MoldTrax6 is installed in
- Creates a folder within the PICS folder that houses the pictures for a specific mold
- Copy the all the pictures for that Mold here

Then:

- Copy the data path to that folder and Paste it into the Link field on the form
- Click this link to browse to the folder that hosts all the pictures for that Mold
- Copy the data path to that folder and add the specific name of a picture to the path
- Paste the entire path into the Link field

Now when the Link is clicked, it brings up the single picture related to the Category selected.

Hot Runner tab

The Hot Runner section allows the user to quickly and easily view critical details about a hot manifold system used in the mold. Specific information concerning Disassembly, Cleaning, Assembly, Processing, Inspection and Servicing may be documented and

accessed for anyone who might need them. Specific information about the manifold such as component types and part numbers may also be stored for quick reference. Use the Links tab to include helpful images of the manifold system.

MOLD: 2010 (Electron Cover) Mold ID: 289

Select Mold		Mold	Tooling	Layout	IML Map	Troubleshooter Guide	Tech Tips	Notes	Servicing																																																																																																																																													
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Record: 1 of 2 | No Filter | Search

HR Specs

System

Serial Number

Program Number

Type

Actuation

Probe Type

Controller

Number of Zones

Number of Drops

Drops Serviceable In-Press? Are the probe/nozzle tips serviceable in the press?

Maximum Operating Temperature

Manifold Plate Bolt Torque---Required bolt torque (foot or inch pounds)

Open Pressures—Pressure required to retrack or Open the valve pins

Closed Pressures—Pressure required to Close the valve pins

Probe Heater

Probe Heater Thermocouple Type

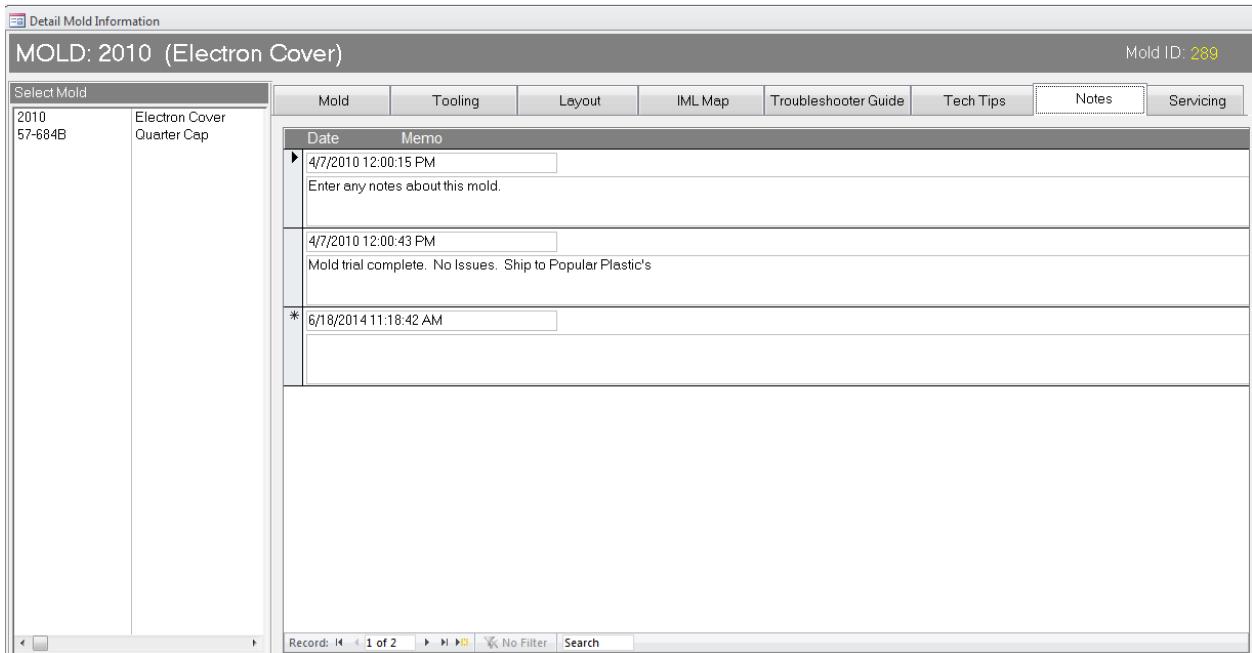
Manifold Heater

Manifold Heater

Thermocouple Type

Notes Tab

This form allows the managing company to document notes or memos about the mold.



The screenshot shows the 'Detail Mold Information' window for Mold 2010 (Electron Cover). The 'Notes' tab is selected. On the left, a sidebar shows 'Select Mold' with '2010' and '57-684B' selected, and 'Electron Cover Quarter Cap' listed. The main area has tabs for 'Mold', 'Tooling', 'Layout', 'IML Map', 'Troubleshooter Guide', 'Tech Tips', 'Notes' (which is active), and 'Servicing'. The 'Notes' section contains three entries:

Date	Memo
4/7/2010 12:00:15 PM	Enter any notes about this mold.
4/7/2010 12:00:43 PM	Mold trial complete. No Issues. Ship to Popular Plastic's
6/18/2014 11:18:42 AM	

At the bottom, there are navigation buttons: 'Records: 14', '1 of 2', and 'No Filter/Search'.

Fields to be completed are:

Date

MoldTrax automatically enters the current date for the memo form.

Memo

Enter the text for the memo form.

Servicing Tab

These user customizable descriptions will appear as In Press Servicing Instructions on the IML Report.

The screenshot shows the 'Detail Mold Information' window for 'MOLD: 2010 (Electron Cover)'. The 'Servicing' tab is selected. The 'Select Mold' section shows '2010' and '57-684B' with 'Electron Cover Quarter Cap' selected. The 'Servicing' tab contains two main sections: 'In-Press Servicing Instructions for IML Report Headings' and 'Product Defect Items for IML Report Headings'. The 'In-Press Servicing Instructions' section lists 10 service items, with items 1-5 visible: 1. Check Stripper Plates for smooth operation, 2. Check water, oil lines for proper length and possible pinch, 3. Mold closing smoothly with no signs of mold slippage betw, 4. Wipe off mold faces, Pins, Bushings and Interlocks using A, 5. Reapply grease to above tooling sparingly. The 'Product Defect Items' section lists 10 defect items, with items 1-5 visible: Long Gates (.015), Skirt Breaks Off, Flash Top Skirt (.005), Flash Bottom Skirt (.005), Froze Off. The 'Reason Pulled for IML Report Headings' section lists 10 pull items, with items 1-5 visible: C/R & Run, C/R & Rack-Run Complete, Reached Cycle Limitations, Cavitation, Internal Water Leak. The 'Product Defect Items' and 'Reason Pulled' sections have 10 empty boxes for items 6-10.

Fields to be completed:

Service Items 1-10

Enter the Service Checklist Items. These user customizable descriptions will appear as In Press Servicing Instructions on the IML Report. Up to ten Servicing Directives can be listed here.

Defect Items 1-10

Enter common mold or product Defect Items. These user customizable descriptions will appear in the Product Defect section on the IML Report. Normally, the ten most common Defects that the mold might experience are listed here. This allows technicians documenting part or mold defects to choose from your list of top ten defects suffered by your mold. This results in improved consistency and accuracy in defect terminology. It is helpful to include maximum flash lengths allowed on the part (>.020) beside the defect term as this list is also displayed on the Last Shot Inspection report.

Pull Items 1-10

Enter up to 10 Reasons why the mold might be pulled. These user customizable descriptions will appear as checkboxes in the Reasons Pulled section of the IML Report. This will allow for quickly recording why the mold was removed from the press. Normally, the ten most common reasons the mold might be pulled are listed here.

MAINTENANCE TRACKING BUTTON



The Maintenance Tracking form will allow the Managing Company to choose from any of the Molds entered into MoldTrax, record start and stop dates and times, mold configuration information, track problems and product defects and document the parts and procedures used to repair the molds. This section also allows you to monitor cycle information, instantly reference Troubleshooting procedures and Tooling Guides to input new problems/defect descriptions and tooling. A list of the Molds is available from a drop-down list in the upper left corner of the screen. Once a mold is selected from the list, the related Mold Maintenance information will display on the rest of the screen. Information entered at the top portion of this section is taken directly from the IML Sheet.

Items in italics, underlined and colored "*Red*" are part of the MoldTrax "**Fast Start**" and are required to archive data and generate reports and worksheets.

Maintenance Tracking

2010: Electron Cover

MOLD: 2010 (Electron Cover)

Mold ID: 289

Enter Start & Stop Data: 2010 (Electron Cover)

Press	Start Date	Start Time	Start Tech	Mold Config	Stop Date	Stop Time	Stop Tech	Stop Reason
9	5/1/2009	17:00	Kringle, Kris	30 mm	6/1/2010	23:00	Zart, Mote	C/R & Rack-Run Complete
12	6/3/2010	8:00	Zart, Mote	30 mm	6/11/2010	1:00	Kringle, Kris	Clean Only & Run
12	6/13/2010	4:00	Kringle, Kris	40 mm	6/14/2010	14:00	Zart, Mote	X-Flashed Manifold

Record: 14 1 of 3 | No Filter | Search | Defect Map | Repair Tasks | Corrective Action | Action Review | Maintenance Schedule | Troubleshooter Guide | Tooling List | TechTips

Repair Information

Date Repair Completed: 6/2/2010
 Repair Hours: 8
 Repaired By: Goodwrench, John

Maintenance Instructions

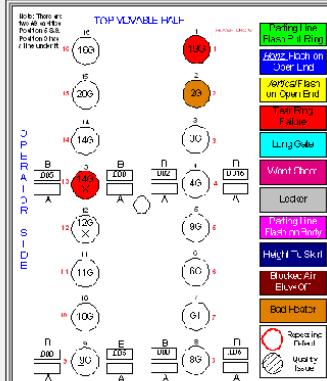
This section is used to include specific instructions concerning areas of the mold to be checked, and other maintenance instructions from supervisor or processing technicians. See next repair. If molds are sent out for repair, use this section to alert the company performing the repair about existing conditions that need attention.

Runtime Information

Work Order: Your ERP W/O#
 Cycle Count: 1,234,567,890
 Estimated Time Run: 396 Days, 6 Hours
 Available Cycles: 2,853,000

Repair Comments

This section is utilized by the person/s who repaired the mold to make summaries/comments concerning the repair, or to answer any concerns noted in the above (Maintenance Instructions) section. Spell check both sections by clicking on the ABC Checkmark icon on the top of the screen. See next repair.



The fields to complete are:

Top Part of Screen

Press

Enter in the number of the Press where the mold ran. This number is used in several MOLDTRAX Reports.

Start Date

Enter in the Start Date of when the mold began producing parts. This date is required in ALL Statistical Reports and is necessary to archive data and generate most reports and worksheets.

Start Time

Enter in the Start Time (military time) on the Start Date of when the mold began producing parts. This time is required in ALL Statistical Reports and is necessary to archive data and generate most reports and worksheets.

Start Tech

Enter in the name of the Technician (from the drop down list) that activated the press and processed the mold to begin producing parts. This name is important in several reports that determine possible start-up problems experienced.

Mold Config

Enter in the type of configuration that the mold is currently in. The Mold Configuration Types are dynamic and can be specified by the user. This allows users to

track different tooling configurations or part numbers back to a single mold frame/base number. Once a Configuration Type is entered into this field, it will be ‘remembered’ so that this Configuration Type can be selected again on future Mold Maintenance documents. Be sure it is accurate and spelled correctly. *To delete an entry from this list you must find all records that contain this entry and remove it.*

If there is no specific configuration that you want to track, or if the mold only runs one configuration, then use a generic term such as “Standard” or “Typical”.

Stop Date

Enter in the Stop Date of when the mold ceased to produce parts. This date is required in ALL Statistical Reports and is necessary to archive data and generate most reports and worksheets.

Stop Time

Enter in the Stop Time (military time) on the Stop Date of when the mold ceased to produce parts. This time is required in ALL Statistical Reports and is necessary to archive data and generate most reports and worksheets.

Stop Tech

Enter in the name of the Technician (drop down list) that de-activated or shutdown the mold for repairs or removal from the press. This name is important in several reports that determine possible shutdown problems experienced.

Stop Reason

Select the Reason the mold was stopped from producing parts. The Stop Reasons are dynamic and entered in here. Once a Stop Reason is entered into this field, it will be ‘remembered’ so that this Stop Reason can be selected again on any mold entered into the MOLDTRAX system. Avoid lengthy explanations here and be sure it is accurate and spelled correctly. *To delete an entry from this list you must find all records that contain this entry and remove it.*

Choose short, clear terms such as C/R & Rack meaning “Clean and Repair and Rack” or “Internal Water Leak”. Several common terms are listed below. You may choose one of these or enter your own. For easier sorting when analyzing the information or creating reports, be sure to prefix any Unscheduled Stop Reason with an X- which will keep all unscheduled mold stops as a group.

Lists of Common Scheduled and Unscheduled Stop Reasons

List of Common <u>Scheduled</u> Stop Reasons	
Annual Press P.M.	Install Sample Tooling
C/R & Change Decks	Material Trial
C/R & Rack	No Run--Maint. Only
C/R & Rack--Run Complete	Not Scheduled
C/R & Run	Press Change
C/R to 3423 (466 Combination)	Protocol Complete
C/R to 6324 (.138)	Qualification Run Complete
Clean Only & Run	Remove Sample Tooling
Color Change	Sample Run Complete
Cycle Limit	See Maintenance Instructions
D.O.E. Complete	Skid & Ship
Data Collection - In-Prod	Summer Shut-Down
Engineering Trials	Validation Run Complete
Get Production Ready	Winter Shutdown

List of Common <u>X-<i>Unscheduled</i></u> Stop Reasons	
X-Black Streaks	X-Internal Water Leak
X-Cavitation	X-Metal in Gate
X-Degraded Material	X-Metal in Parts
X-Dimensional Issues	X-Mold Damage
X-Ejector Plate Won't Function	X-Mold Set Issues
X-Electrical Issues	X-Mold Won't Close
X-External Oil Leak	X-Mold Won't Shoot
X-External Water Leak	X-Nonfill Issues
X-Finish Issues	X-Out of Material
X-Flash Issues	X-Particulate
X-Flashed Manifold	X-Parts Sticking
X-Flashed Mold	X-Press Problems
X-Functional Issues	X-Pulling Grease
X-Galled Tooling	X-Residue Leaching Out
X-Gas Burns	X-Robot Issues
X-Gate Issues	X-Runner Sticking
X-Heater Issues	X-Scuffed Tooling
X-Incorrect Mold Assembly	X-Thread Issues
X-Incorrect Tooling Configuration	X-Warped Parts
X-In-Press Repair	

Defect Map Tab

This section of MoldTrax is used to paste a mold image or drawing geographically displaying where the defects are located and any special Maintenance Instructions required to repair this mold. The Mold Map is a critical tool for the repair technician and supervisor, allowing them to plot and trend defects located in the mold frame. It also allows for a more organized approach in documenting where new tooling was installed or replaced by serving as a visual reference for all users wanting an accurate method to scan defect histories and to analyze defect trends or patterns.

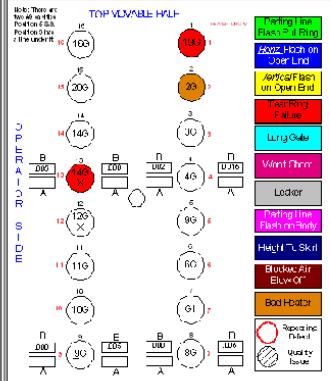
Maintenance Tracking

2010: Electron Cover MOLD: 2010 (Electron Cover) Mold ID: 289

Enter Start & Stop Data: 2010 (Electron Cover)

Press	Start Date	Start Time	Start Tech	Mold Config	Stop Date	Stop Time	Stop Tech	Stop Reason
9	5/1/2009	17:00	Kringle, Kris	30 mm	6/1/2010	23:00	Zart, Mote	C/R & Rack-Run Complete
12	6/3/2010	8:00	Zart, Mote	30 mm	6/11/2010	1:00	Kringle, Kris	Clean Only & Run
12	6/13/2010	4:00	Kringle, Kris	40 mm	6/14/2010	14:00	Zart, Mote	X-Flashed Manifold

Record: 14 of 3 [Defect Map](#) [Repair Tasks](#) [Corrective Action](#) [Action Review](#) [Maintenance Schedule](#) [Troubleshooter Guide](#) [Tooling List](#) [TechTips](#)



Repair Information

Date Repair Completed:

Repair Hours:

Repaired By:

Maintenance Instructions

This section is used to include specific instructions concerning areas of the mold to be checked, and other maintenance instructions from supervisor or processing technicians. See next repair. If molds are sent out for repair, use this section to alert the company performing the repair about existing conditions that need attention.

Runtime Information

Work Order:

Cycle Count:

Estimated Time Run:

Available Cycles:

Repair Comments

This section is utilized by the person/s who repaired the mold to make summaries/comments concerning the repair, or to answer any concerns noted in the above (Maintenance Instructions) section. Spell check both sections by clicking on the ABC Checkmark icon in the top of the screen. See next repair.

Defect Map Image

Paste a digital image or graphic drawing of the Cavity Layout or Mold Map into this field to show where the defects occurred. From within another graphic application (Paint, Excel, VISIO etc), select the image and click on Edit, Copy to place a copy of this image or drawing onto the Windows clipboard. Then from within the Defect Map Image field of MoldTrax, simply click on Edit, Paste to insert the image into the record.

Giving specific defects a standard color legend on your map drawings dramatically increases your patterning/trending capability when viewing this screen as your maintenance histories grow.

Date Repair Completed

Enter in the date that this repair was completed.

Repair Hours

Enter in the total number of hours it took to complete all repairs to the mold. This is a total hours reference number only and is not used on any reports. MOLDTRAX allows you to track actual labor time involved on repairing specified problems by entering repair hours under the Corrective Action tab. Utilizing this feature enables you to justify monies needed for specific defect resolution. You can also track cleaning times by this method. Simply enter into the “Troubleshooting Guide” field, (blue box under “Type”) the name of your cleaning level such as general, interim, or major cleaning, and a “Description” of cleaning level. After the cleaning is performed, enter the time required to perform the cleaning. The cost is automatically generated on the Defect Cost Analysis report available in the Reports section of MOLDTRAX.

Repaired By

Select the name of the technician (from the drop down list) who repaired the mold. This list of names is composed from the list of Employees from the Company Information tab. Generally there is one repair technician charged with repair sign-off responsibilities. When other technicians are involved with implementing corrective actions, they can easily be tracked in the Corrective Action Tab.

Work Order

Many companies already utilize a work order numbering system to track plant maintenance. Enter this Work Order number or any internal document system number that you want to reference to this repair. This allows MOLDTRAX to run in parallel with other plant maintenance systems already in place.

Production Cycles

Many companies track mold cycles based on how many parts were produced over a period of time. Enter the number of Production Cycles this mold ran before it was pulled from the press. Available cycles are based on cycle time, start and stop date, and (military) time of day.

Maintenance Instructions

Enter in any special Maintenance Instructions or summations about the performance of the mold that was documented on the IML Sheet by processors or start-up personnel. Maintenance supervisors or personnel monitoring maintenance history also utilize this section to pass on historical information, or specific instructions to technicians to follow when repairing the mold. These notes and summaries appear on the Maintenance Timeline report.

Repair Comments

Technicians repairing the mold enter in any special Comments concerning the repair. Repair technicians utilize this section to summarize repairs made and to state concerns about future mold performance or maintenance issues not addressed during the repair. These notes and summaries appear on the Maintenance Timeline report.

Repair Tasks Tab

This section of MoldTrax is used to document all part or mold Defects that are observed or blocked off during the production run. Clicking on the field under “Defect” will reveal a drop-down box that contains all known Defects that you have

entered in the Troubleshooters Guide. If the problem or defect is not available from the drop down list, click on the Trouble Shooters Guide tab hot button. This button quickly takes you back to the Troubleshooters Guide where you simply add the defect criteria. After you add the defect, you simply click on the “Defects” tab, click the dropdown and select the new defect or entry. If the entry does not show up on the drop-down list, it may be necessary to “refresh” the dropdown by clicking off the field, then back on.

Press	Start Date	Start Time	Start Tech	Mold Config	Stop Date	Stop Time	Stop Tech	Stop Reason
9	5/1/2009	17:00	Kringle, Kris	30 mm	6/1/2010	23:00	Zart, Mote	C/R & Rack-Run Complete
12	6/3/2010	8:00	Zart, Mote	30 mm	6/11/2010	1:00	Kringle, Kris	Clean Only & Run
12	6/13/2010	4:00	Kringle, Kris	40 mm	6/14/2010	14:00	Zart, Mote	X-Flashed Manifold

Date	Time	Block	Quality	Repair Tasks/Defects	Cav ID	Technician	Notes
6/1/2010	23:00	<input type="checkbox"/>	<input type="checkbox"/>	Cleaning Level: Major Cleaning	All	Johnson, Mike	
*		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				

Date

Enter in the Date the Defect was observed or blocked off.

Time

Enter in the time (military time) of when the Defect was observed or blocked off.

Block

Check this box if the cavity was blocked off during the run.

Quality

Check this box if the cavity was noted because of a Quality observation. This allows you to note defects that are close to reaching flash or Quality Control specification limits but are NOT blocked off, or other types of defects such as mold frame or processing concerns.

Repair Tasks/Defects

Clicking on this field will reveal a drop-down box that contains all known Defects that you have entered in the Troubleshooters Guide. Simply select the defect that was recorded on the IML Sheet by the molding technicians. If the problem or defect that you need is not available from the drop down list, click on the Trouble Shooters Guide tab hot button located to the right of this tab. This button quickly pulls up the Troubleshooters Guide for this specific mold where you add relevant defect criteria. After you add the defect, you simply click on the “Defects” tab, click the dropdown and select the new defect or entry. If the entry does not show up on the drop-down list, it may be necessary to “refresh” the dropdown by clicking off the field, then back on. See the Troubleshooters Guide section of the User Guide for more information on creating new defects.

Cavity ID

Clicking on this field will reveal a dropdown box that contains all Cavity Part ID numbers and any tooling you wish to track to a specific Position. The first column of numbers contains the Part ID or “Cavity” numbers. The second column designates the Position of the Part ID or “Cavity” number in the mold. The third column contains a letter designation “Y” (meaning Yes, it’s active) or “N” (meaning No, it’s not) to specify an Active or Inactive Part ID number. All “N” (not active) designated Part ID numbers are listed at the bottom of the columns for easy identification. See the “Cavity Position Number” under the Detail Mold Information section of the User Guide for a more detailed description on how this extremely helpful field is used.

Technician

Select the name of the technician (from the drop down list) who blocked this cavity or observed the problem or defect. This list of names is composed from the list of Employees from the Company Information tab.

Notes

Enter the miscellaneous Notes about this problem or mold defect.

Corrective Action Tab

This section of MoldTrax is used to document what parts or procedures are used or implemented to resolve the Defects entered within the previous Defect tab. Enter the tooling or procedures that were used to repair a defect (left side of the screen, drop down lists) and then choose the Defect that these items resolved from the drop-down list available on the right hand side of the screen. The information you enter here will come from the Corrective Action section of the Repair Sheet that your repair technicians fill out after the repairs are completed.

Date	Type	Tooling	Corrective Action	Repr Hrs	Technician	Notes
6/2/2010	Out-Press	None Used	Cleaned Level "G"	8.00	Goodwrench, John	Double-click to edit

Defects Repaired:						
All: Major Cleaning : 06/01/10 23:00						
*	*	*	*	*	*	*

Date

Enter in the Date the Corrective Action was performed.

Type

Dropdown selection:

Enter in the type of Corrective Action taken. The static choices are: Observation, In-Press, Out-Press, Noted. This information is required in order to generate an In-Press Repairs report.

Tooling

Dropdown selection:

Enter in the Tooling Replaced to resolve the Defect or Problem. If the Tooling is not available from the drop down list, click the Tooling List hot button (far right) and add it. See the Tooling Tab section of the User Guide for instructions on populating the Tooling List.

Quantity

Enter in the quantity of the tooling used to resolve this problem or defect. Tooling such as O-Rings, Interlocks, Pins and Bushings can be tracked by “sets” or individually.

Corrective Action

Enter in a brief description or term of the action performed to resolve this Defect or Problem. If the action is not available from the drop down list, simply start typing the brief description within the field. The Corrective Actions are dynamic and can be specified by the user. Once a Corrective Action is entered into this field, it will be ‘remembered’ so that this Corrective Action can be selected again on future Corrective Action documents. Avoid lengthy explanations here and be sure it is accurate and spelled correctly. *To delete an entry from this list you must find all records that contain this entry and remove it.* Several common terms are listed here. You may choose one of these or enter your own.

Lists of Common Corrective Actions

List of Common Corrective Actions	
Add Vents	None Taken - Restart
Adjust Process	Polished Tooling
Braze & R/W to Fit	Prepared For Production
Changed Over	Regrind Vents
Clean & Inspect Only	Repaired In-Press
Clean & Measure	Replaced
Clean Only	Replaced & Lapped
Clean Only In-Press	Replaced In-Press
Clean Vents	Replated
Cleaned Level "G"	Reversed Sleeve
Cleaned Level "M"	Reworked
Cleaned Level "W"	See Notes
Cleaned Metal From Gate	See Repair Comments
Electrical Check---All OK	Sharpen Gates
Fabricate New	Shimmed
Install Tooling	Shimmed In-Press
Lap Only	Skid & Ship
None Taken - In-Prod	Stone & Fit Tooling
None Taken - No Time	Stone & Polish Tooling
None Taken - No Tooling	Stoned Burrs
None Taken - Press Maint.	Unblock Cavity

Maintainance Tracking

2010: Electron Cover

MOLD: 2010 (Electron Cover)

Mold ID: 289

Enter Start & Stop Data: 2010 (Electron Cover)

Press	Start Date	Start Time	Start Tech	Mold Config	Stop Date	Stop Time	Stop Tech	Stop Reason
9	5/1/2009	17:00	Kringle, Kris	30 mm	6/1/2010	23:00	Zart, Mote	C/R & Rack-Run Complete
12	6/3/2010	8:00	Zart, Mote	30 mm	6/11/2010	1:00	Kringle, Kris	Clean Only & Run
12	6/13/2010	4:00	Kringle, Kris	40 mm	6/14/2010	14:00	Zart, Mote	X-Flashed Manifold
*								

Record: 1 of 3

Defect Map Repair Tasks Corrective Action Action Review Maintenance Schedule Troubleshooter Guide Tooling List TechTips

Corrective Actions:

Date	Type	Tooling	Qty	Corrective Action	Repr Hrs	Technician	Notes
6/2/2010	Out-Press	None Used	0	Cleaned Level "G"	8.00	Goodwrench, John	All: Major Cleaning : 06/01/10 23:00
*					0.00		

Record: 1 of 1

Defects Repaired:

Date	Type	Tooling	Qty	Corrective Action	Repr Hrs	Technician	Notes
6/2/2010	Out-Press	None Used	0	Cleaned Level "G"	8.00	Goodwrench, John	All: Major Cleaning : 06/01/10 23:00
*					0.00		

Repair Hours

Enter the repair hours necessary to correct the defect. One half hours equal .5. If the mold is to be cleaned only, choose your predetermined cleaning level from the Corrective Action list i.e.; 250K or 250,000 cycle, General, Major, etc... and enter the time required to perform it. Labor hours are tracked and totaled for all reports except the All Maintenance Tracking report (FastTrax) from this section.

Technician

Select the name of the technician who resolved this problem or defect. This list of names is composed from the list of Employees from the Company Information tab. If several technicians were involved in the repair, list them in the Notes field that directly follows or in the Repair Comments section.

Notes

Use this field to further elaborate about the Corrective Action concerning the specific defect or procedure. For example if "Polished Tooling" is the Corrective Action taken, list which piece of tooling (Core, Sleeve, Cavity etc.) was polished in the Notes field. If "Shimmed" is a Corrective Action, enter the thickness of the shim and where it was installed. This section auto expands on the Repair Sheet and should be used to clarify information concerning specific defects.

Maintenance Tracking

2010: Electron Cover

MOLD: 2010 (Electron Cover)

Mold ID: 289

Enter Start & Stop Data: 2010 (Electron Cover)

Press	Start Date	Start Time	Start Tech	Mold Config	Stop Date	Stop Time	Stop Tech	Stop Reason
9	5/1/2009	17:00	Kringle, Kris	30 mm	6/1/2010	23:00	Zart, Mote	C/R & Rack-Run Complete
12	6/3/2010	8:00	Zart, Mote	30 mm	6/11/2010	1:00	Kringle, Kris	Clean Only & Run
12	6/13/2010	4:00	Kringle, Kris	40 mm	6/14/2010	14:00	Zart, Mote	X-Flashed Manifold
*								

Record: 1 of 3 | No Filter | Search

Defect Map Repair Tasks Corrective Action Action Review Maintenance Schedule Troubleshooter Guide Tooling List TechTips

Corrective Actions:

Date	Type	Tooling	Cty	Corrective Action	Repr Hrs	Technician	Notes
6/2/2010	Out-Press	None Used	0	Cleaned Level "G"	8.00	Goodwrench, John	All: Major Cleaning : 06/01/10 23:00
*					0.00		

Defects Repaired:

Date	Type	Tooling	Cty	Corrective Action	Repr Hrs	Technician	Notes
6/2/2010	Out-Press	None Used	0	Cleaned Level "G"	8.00	Goodwrench, John	All: Major Cleaning : 06/01/10 23:00
*					0.00		

Record: 1 of 1 | No Filter | Search

Defects Repaired

Once the Corrective Action and parts or procedures are specified on the left side of the screen selects the Defect that these items resolved on the right hand side of the screen. Special design features allow MoldTrax to track the cost of a single Corrective Action that resolves multiple Defects. For example, replacing a worn set of Interlocks could repair 4 cavities that have quality issues for a parting line mismatch. MoldTrax will track only the cost of one set of Interlocks and documented labor hours to repair these four cavities. Conversely, if it requires several tooling items and procedures to repair a defect, you can list them singularly, and choose the defect they resolved. This design allows great flexibility in how you track your costs and a more customized and accurate Defect Cost Analysis Report.

Action Review Tab

This “read only” section of Maintenance Tracking is automatically generated to organize and display what parts or procedures were used or taken to resolve the problems or defects recorded within the Defect and Corrective Action tabs. It is handy screen to verify the information that you just entered prior in the Corrective Action section. Also, by simply scrolling through the Start and Stop time records in the upper part of the screen (use the arrow keys), you can easily see how a defect was resolved in the past. This information is also available in several of the MoldTrax reports, but by viewing this screen, it is not necessary to produce a report to be quickly informed.

When using the Action Review Tab immediately after an entry in the Defects or Corrective Action tabs, click on the “Refresh” tab at the bottom of the screen to refresh the data displayed on the screen. Otherwise, the information will be automatically be refreshed when you click off the field.

Press	Start Date	Start Time	Start Tech	Mold Config	Stop Date	Stop Time	Stop Tech	Stop Reason
9	5/1/2009	17:00	Kringle, Kris	30 mm	6/1/2010	23:00	Zart Mote	C/R & Rack-Run Complete
12	6/3/2010	8:00	Zart, Mote	30 mm	6/11/2010	1:00	Kringle, Kris	Clean Only & Run
12	6/13/2010	4:00	Kringle, Kris	40 mm	6/14/2010	14:00	Zart, Mote	X-Flushed Manifold

Cav#	Date Noted	Defects	Tooling	Corrective Action	Date	Rpr Hrs
All	6/1/2010	Major Cleaning	None Used	Cleaned Level "G"	6/2/2010	8.00

Maintenance Schedule Tab

This section of MoldTrax is used to document the current Repair Status, In-Press Servicing Frequency cycle, and out of press PM or C/R frequency cycle. It can also be used to schedule by Date, or number of Cycles, other Maintenance Actions that should be performed upon the mold. This schedule is handy for storing information relating to problem areas of molds that will need to be addressed in the future, such as "Plate #3 bowed .020. Grind and replate (nickel) ASAP". These action items can then be prioritized as seen fit. It is also handy to document critical events in a mold's life that you might want to track such as manifold leaks, major cleanings or total mold rebuild dates.

The screenshot shows the 'Maintenance Tracking' window for mold 2010 (Electron Cover). The main area displays a grid of maintenance events with columns for Press, Start Date, Start Time, Start Tech, Mold Config, Stop Date, Stop Time, Stop Tech, and Stop Reason. The events listed are:

Press	Start Date	Start Time	Start Tech	Mold Config	Stop Date	Stop Time	Stop Tech	Stop Reason
9	5/1/2009	17:00	Kringle, Kris	30 mm	6/1/2010	23:00	Zart, Mote	C/R & Rack-Run Complete
12	6/3/2010	8:00	Zart, Mote	30 mm	6/11/2010	1:00	Kringle, Kris	Clean Only & Run
12	6/13/2010	4:00	Kringle, Kris	40 mm	6/14/2010	14:00	Zart, Mote	X-Flashed Manifold

Below the grid are tabs for Repair Status, Action Item, and Cycles. The Repair Status dropdown is set to 'Green Tag'. The Action Item table shows a single entry: '1 no error' noted on 5/23/2014 at 11:10. The Cycles section shows a total of 2,918,700 cycles.

Repair Status

Enter in the Repair Status such as Red, Green, Yellow Tag. The default Repair Status information is entered by a MoldTrax user with Administrative access from the Maintenance Tracking Drop Down Lists under the Administration section.

Mold Location

Enter the storage location of the mold currently resides or where the mold has been shipped for repairs or to run. The default Location information is entered by a MoldTrax user with Administrative access from the Maintenance Tracking Drop Down Lists under the Administration section.

In Press Service Frequency

Enter in the number cycles this mold should have In-Press Servicing Procedures performed on it while it is In-Press.

Out of Press PM Frequency

Enter in the maximum number of cycles this mold can run before pulling for more extensive preventative maintenance or servicing.

Out of Press PM Yellow Frequency

Enter in the maximum number of cycles this mold can run before pulling for more extensive preventative maintenance or servicing.

Out of Press PM Red Frequency

Enter in the maximum number of cycles this mold can run before pulling for more extensive preventative maintenance or servicing.

Date Noted

Enter in the Date that a specific action item was noted or performed.

Time

Enter in the Time for the Date that a specific action item was noted or performed.

Priority

Enter in a number (1-9) from the drop down list for the Priority of a specific action item.

Action Item

Enter in a description of the Action for maintenance or preventative maintenance that should be performed upon the mold or any highlighted mold event you want to track exclusively.

Cycles

Enter in the number of Cycles to be run before a specific maintenance or preventative maintenance action should be performed upon the mold, or track cycles between actions taken.

Status

Select one of the pre-determined Status selections from the drop down list provided. The options are: Pending, In-Progress, Completed, Hold, and Canceled.

TroubleShooters Guide Tab

The TroubleShooters Guide tab pulls up the TroubleShooters' Guide and displays it here where you can quickly add new defects and descriptions of these defects as they occur with your molds. Information relating to the resolution of these defects and problems of the specific mold can be added as the information becomes available. The TroubleShooters Guide is used primarily to guarantee that any problems or defects the mold has experienced, is documented for an accurate approach to future defect resolution.

Click on the Troubleshooters Guide Tab to automatically enter information into the Troubleshooters Guide. For more information on using creating and using the Troubleshooter's Guide, see the Troubleshooters Guide section of this User Guide.

MOLD: 2010 (Electron Cover)									Mold ID: 289
Enter Start & Stop Date: 2010 (Electron Cover)									
Press	Start Date	Start Time	Start Tech	Mold Config	Stop Date	Stop Time	Stop Tech	Stop Reason	
9	5/1/2009	17:00	Kringle, Kris	30 mm	6/1/2010	23:00	Zart, Mote	C/R & Rack-Run Complete	
12	6/3/2010	8:00	Zart, Mote	30 mm	6/11/2010	1:00	Kringle, Kris	Clean Only & Run	
12	6/13/2010	4:00	Kringle, Kris	40 mm	6/14/2010	14:00	Zart, Mote	X-Flashed Manifold	

Record: 1 of 3		No Filter	Search	Defect Map	Repair Tasks	Corrective Action	Action Review	Maintenance Schedule	Troubleshooter Guide	Tooling List	TechTips
1	Part	Flash on Flange		Flash <.015 from the Flange end of part. DOUBLE CLICK IMAGE (or any of these 5 fields) TO ENLARGE!!!	1. Worn H.H. Cavity or H.H. Cavity Housing 2. Residue build-up between H.H. Cavity face and H.H. Cavity Housing	1. Examine tooling fit under microscope and replace worn component. 2. Clean mold.	Do a complete Last 3 Inspection of all parts repairing mold				
2	Part	Long Gate		Plastic sticks out past the skirt more than .015 from the cone end of part.	1. Valve Pin tip to Insert Gate fit NAS. Usually a worn H.H. Gate Bushing 2. Worn Valve Pin 3. Worn Piston Cup O-Rings.	1. Check fit of Valve Pin to Gate Insert under microscope. Interchange new tooling with old to determine which piece is worn out. 2. Replace piston cup o-rings.	Do a complete Last 3 Inspection of all parts repairing mold.				
3	Mold	Hot Core		Core gets hot during production. DOUBLE CLICK IMAGE TO ENLARGE!	1. Bent Bubbler or an obstruction as shown in the image. 2. Water hooked up wrong.	1. Clean and replace bent or damaged Bubbler. 2. Verify correct water hookup.	DO NOT USE TEFLON PIPE FITTINGS AND CAUTION WHEN ASSEMBLING OR REASSEMBLING				

Number

Enter the sequence or priority Number of the record. This will allow the ordering or priority of the TroubleShooters Guide report provide that the most common or critical documents are sorted first.

Type

Select the Type of problem from the drop-down list. The Types are dynamic and can be specified by the user. Once a problem Type is entered into this field, it will be 'remembered' so that this Type can be selected again on future TroubleShooters Guide documents. Avoid lengthy explanations here and be sure it is accurate and spelled correctly. *To delete an entry from this list you must find all records that contain this entry and remove it.*

Defect Term

Enter the observed Defect (in blue field) that will be documented within this record.

Image

Add a digital picture or graphic drawing of the part or defect documented within this record. After records are refreshed, you can double-click to enlarge. (See Using Digital Images in the User Guide).

Defect or Task Explanation

Enter a description of the observed defect.

Probable Cause

Enter a description of the Probable Cause of the defect.

Corrective Action

Enter a description of the solution or the Corrective Action taken to resolve the problem or defect.

Preventative Action

Enter a description of the steps necessary to prevent this problem or defect from happening again.

Tooling List Tab

The Tooling List tab pulls up the Tooling List and displays it here where you can quickly add new tooling as required for your molds. Information relating to the tooling can be added later as the information becomes available.

After adding the new tooling, you simply click on the “Corrective Action” tab, click the dropdown in the “Tooling” field and select the new tooling entry. If the entry does not show up on the drop-down list, it may be necessary to “refresh” the dropdown by clicking off the field, then back on. (See the Tooling Tab section of the User Guide for more information). This information is very important in most all of the reports used in MoldTrax.

Type	Description	Part #	Detail #	Vendor	Cost	Parts on Hand	Reorder Level	# Ordered	Date Ordered	# Received
Cavity	40 MM Change-over kit	40MM92379-1	40MM	In-House	\$0.00					Add F Rece
Cavity	C.H. Core Pin Also used in the 1556 mold. See Tech Tips for polishing and handling instructions.	738838-93	1555-23	Tooling R Us	\$890.00					Add F Rece
Cavity	C.H. Stripper Ring Must be ground to fit each pocket.	7488944-32	1555-34	Tooling R Us	\$134.00					Add F Rece

Type

Dropdown selection:

Select the Tooling Type: Frame, Cavity or Procedure.

MoldTrax allows you the option of separating tooling into categories for more complete tracking and analysis. This section is pre-populated with 3 choices although you may at any time add your own preferences. Avoid lengthy explanations and be sure it is accurate and spelled correctly. *To delete an entry from this list you must find all records that contain this entry and remove it.*

1. Cavity Tooling is typically any tooling that forms the part, i.e.; A & B side Cavity Blocks, Sleeves, Core Pins, Cavity Ejector Pins, Gate Insert etc.
2. Frame (or Mold Base) Tooling is everything else i.e.; pins, bushings, interlocks, springs, horn pins, plates etc.

3. Procedure should be selected when NO tooling used in the repair of the defect, and the corrective action is instead a specific procedure such as cleaning, welding, stacking, polishing, shimming etc. that is listed under Corrective Action.

For example, if you want to designate a specific corrective action to a repair that does not require replacing tooling, select “Procedure” under Type and type in “No Tooling Used” or “No Tooling In Stock” in the blue Description field. This helps to clarify reports used later on. Once these are entered, they will be displayed in the drop-down box under “Tooling”.

Description

Enter the Description of the Tooling part. Double click to enlarge text field.

Part #

Enter the Part Number for Tooling from the manufacturer. Double click to enlarge text field.

Detail #

Enter the Print Detail Number for Tooling from the manufacturer. Double click to enlarge text field.

Vendor

Enter the Name of the Vendor that supplies this part. Double click to enlarge text field.

Cost

Enter your Cost of the Tooling.

Parts on Hand

Enter the current quantity of Parts that are in stock

Reorder Level

Enter the lowest number of Parts that should be allowed before replacement Parts are ordered

Ordered

Enter the number of Parts that have been ordered

Date Ordered

Enter the Date that the Parts were ordered

Received

Enter the number of Parts that have received, and then click the Add Parts Received button

Add Parts Received button

Click this button to force the # Received to be added to the Parts on Hand

Tech Tips Tab

The Tech Tips form will allow the Managing Company to document standard practices, procedures or sequences to be taken with a specific mold. Once the mold is selected from the list on the left side of the screen the related Tech Tips will display on the right side of the screen. The Tech Tips document is used primarily to insure that special practices, procedures or sequences are known and followed during the Disassembly, Assembly, Cleaning, Final Check or Polishing steps of the mold. There is also a Tool Kit tab for listing special tools, jigs or fixtures used during the above steps. This in turn promotes safety, consistency, accuracy and efficiency during difficult and complex repairs.

New to MoldTrax6 is a section called **HR Specs**, specifically for Hot Runner molds to help track Probe Types, Operating Temperatures and Pressure measurements.

Maintainance Tracking

2010: Electron Cover

MOLD: 2010 (Electron Cover)

Mold ID: 289

Press	Start Date	Start Time	Start Tech	Mold Config	Stop Date	Stop Time	Stop Tech	Stop Reason
9	5/1/2009	17:00	Kringle, Kris	30 mm	6/1/2010	23:00	Zart, Mote	C/R & Rack-Run Complete
12	6/3/2010	8:00	Zart, Mote	30 mm	6/11/2010	1:00	Kringle, Kris	Clean Only & Run
12	6/13/2010	4:00	Kringle, Kris	40 mm	6/14/2010	14:00	Zart, Mote	X-Flashed Manifold

Record: 1 of 3 | No Filter | Search | Defect Map | Repair Tasks | Corrective Action | Action Review | Maintenance Schedule | Troubleshooter Guide | Tooling List | TechTips

Tech Tips

Mold Specs HR Specs Disassembly Cleaning Assembly Final Check Tool Kit Polishing Links

Specifications

Height: 24"
Width: 19"
Depth: 22"
Weight: 1100 lbs.
Width Open: 4"
Ejector Stroke: 2.25"
Total Height: 35"

Image or Diagram of Mold



Last Shot Image or Diagram of Part



Fields to be completed are:

Mold Specs

Height

Enter the mold base Height.

Width

Enter the total Width from the “A” to the “B” side of the mold in the closed or “molding” position.

Depth

Enter the Depth from the operator side across to the opposite operator side.

Weight

Enter the Weight of the mold.

Width Open

Enter the Width of the mold in full open position.

Ejector Stroke

Enter the maximum travel of the ejector plate controlled by the press.

Total Height

Enter the total height of the mold, including the hydraulic cylinders or other attached components.

Last Shot Image Diagram of Part

Insert Bitmap (BMP) image or drawing of the Product Part. This image is displayed on the Last Shot Inspection report. Highlight areas of the part that requires periodic inspection. Double click to enlarge text field

Image or Diagram of Mold

Insert a Bitmap image (BMP) or drawing of the entire mold or any part of the mold that you might want available for reference. Double click to enlarge text field.

Disassembly

Enter the steps to be followed for safe and proper disassembly of the mold. Specify procedures concerning the order of component removal or plates that need to be separated in sequence.

Cleaning

Enter the steps to be followed for safe and proper cleaning of the mold and to clarify procedures or techniques.

Assembly

Enter the steps to be followed for safe and proper assembly of the mold. Specify procedures concerning the order of component installation or plates that need to be assembled in sequence.

Final Check

Enter the steps to be followed for proper Final Check of the mold before it is to be sent back to production, racked, or tagged for release.

Tool Kit

Enter any special tools, jigs, fixtures, and electrical controllers etc. to be used on the mold.

Polishing

Enter the steps to be followed for safe and proper Polishing of the mold and to clarify procedures or techniques.

Links

Enter the Tech Tip Category, Name and Link to an external file or image. In some cases, the tabs within the Tech Tips sections, (Disassembly, Cleaning, Assembly, etc) might not be enough to contain all the details for a particular mold. The Links section can be a reference section where you can ‘point’ to existing, supplemental or SOP documentation regarding the mold. These links or pointers can reference files hosted on internal network file shares or external Internet URLs.

Note: Once digital pictures of molds have been taken, the MoldTrax6 user will want to LINK to the picture instead of embedding (copy/pasting) into the database for size and speed considerations.

This can be done any number of ways; here is one suggestion:

- Create a folder called PICS within the folder MoldTrax6 is installed in
- Creates a folder within the PICS folder that houses the pictures for a specific mold
- Copy the all the pictures for that Mold here

Then:

- Copy the data path to that folder and Paste it into the Link field on the form
- Click this link to browse to the folder that hosts all the pictures for that Mold
- Copy the data path to that folder and add the specific name of a picture to the path
- Paste the entire path into the Link field

Now when the Link is clicked, it brings up the single picture related to the Category selected.

MASTER SCHEDULE

This section of MoldTrax is a menu to create a Master Schedule that is a compilation schedule of all the maintenance schedule tabs for all the molds. It can be used to schedule work based upon priority, columns can be sorted, based upon date noted, status cycles, action items or any column.

A screenshot of the 'Master Maintenance Schedule' window. The title bar says 'Master Maintenance Schedule' and has a 'Print' button. The main area is titled 'Master Schedule' and contains a table with the following data:

Date Noted	Time	Mold	Priority	Action Item	Cycles	Status
5/1/2014	10:49	2010: Electron Cover	1	no error	0	Pending
5/23/2014	11:10	2010: Electron Cover	1	test action item	0	Pending
*			1		0	

Fields to be completed are:

Date Noted

Enter the date of the observation

Time

Enter the time of the observation

Mold

Click the drop down to select a mold name

Priority

Click the drop down arrow to select a priority for this Action Item

Action Item

Enter action that should be taken on the mold

Cycles

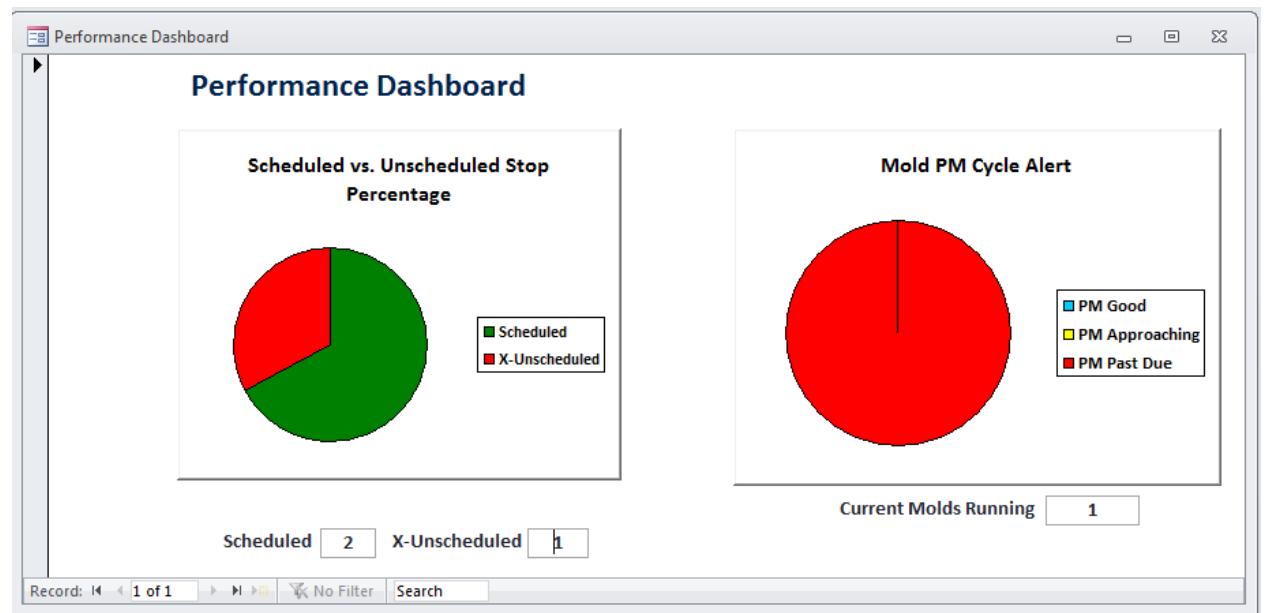
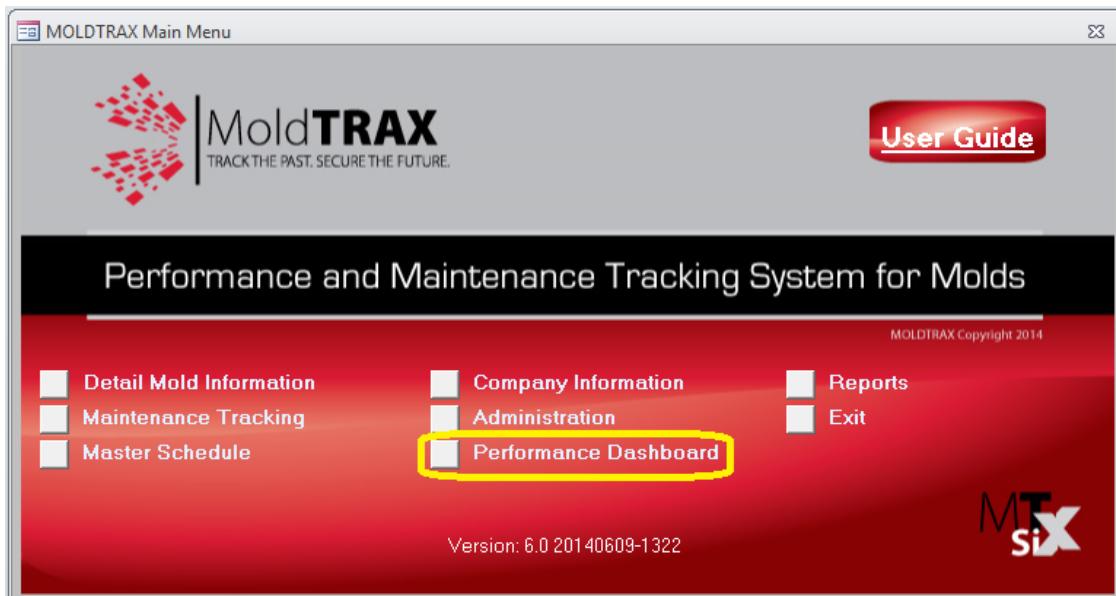
Enter in the number of cycles that the mold should run before this action is performed

Status

Click the drop down arrow to select the status of this Action Item

Performance Dashboard

This section of MoldTrax will produce a real time display of two important performance metrics. The first is a graph showing the percentage of mold that have been stopped because of Scheduled or Unscheduled maintenance. The second is a graphical representation of the Preventative Maintenance status for the number of molds that are running.



REPORTS

The reporting section of MoldTrax is a menu to select from the various types of standard reports available to the user. The reports offered in this section will summarize much of the information documented within other sections of the MoldTrax program. This allows you to track many aspects concerning the performance and maintenance of individual molds. Custom reports are no problem, just go to <http://www.MoldTrax.com> for more information and contact information.



There are three types of Reports to choose from: **Statistical** (dynamic reports with data generated from dates within a certain time period) **Reference** (static reports and listings of specific mold information) and **FastTrax** (dynamic queries of statistical data that can be easily exported into a spreadsheet). The types of reports can be chosen by selecting one of the two radio buttons in the upper left corner of the report screen. Selecting one of the predetermined Start and Stop dates can generate any of the statistical reports. Any month, day, year can be chosen for any of the molds too.

Select a Report

Report Criteria

Type

Statistical
 Reference

Mold

Time Period

Begin:

End:

Reports

Statistical

Repair Sheet
 Maintenance Timeline
 Defect Cost Analysis
 Defect Tracking
 Total Time Run

Reference

IML Sheet
 TroubleShooters Guide
 Tech Tips
 List of Mold Tooling
 Last Shot Inspection

Statistical Reports

NOTE: Each of the Statistical reports requires that a date value be entered into the Begin and End text boxes. Clicking on the drop down arrow will display a listing of mold Start Dates (in the Begin box) and Stop Dates (in the End box).

Repair Sheet

This report will display a summary of mold performance criteria and In-Press Maintenance information entered from the IML (Injection Mold Layout) sheet. The repair technician uses this report to manually document, during repairs, what tooling is used and the corrective action taken to resolve a specific defect and any notes or comments about this action or defects not repaired. After this information is documented, the Repair Sheet can serve as a hard copy record of all repair information and efforts performed on the mold while it was in or out of the press.

The Repair Sheet allows the user to:

- Manually record all repair efforts for later PC input.
- Utilize accurate past repair information for quicker and more effective defect resolutions.
- Create hard copy manuals that can be utilized when PC access is not available to all parties who would find it useful such as, process control, production control, Q/A, engineering and other companies within a organization who might run this mold and would require accurate history.
- Determine whether or not the defect resolution was effective.

Plastics R Us		Repair Sheet		ISO-9007				
2003: Electron Cover								
Press No: <u>9</u> Mold Cont: <u>Red</u> Start Date: <u>9/18/2002</u> Start Time: <u>17:00</u> Start By: <u>Kriegle, Kirs</u> Stop Date: <u>10/1/2002</u> Stop Time: <u>23:00</u> Stop By: <u>Zart, Note</u> Stop Reason: <u>C/R & R1</u>		Maintenance Instructions: <small>This section can be used to include specific instructions concerning areas of the mold to be checked, cleaning level required including maintenance instructions from supervisor or process line technicians.</small> <small>If molds are sent out for repair, use this section to alert the company performing the repair about existing conditions that need attention.</small>		<small>This sample Mold Map was easily made in Excel. You can also use other drawing programs or a JPEG image.</small>				
Day's Run: <u>13 Days, 6 Hours</u> Available Cycles: <u>95,400</u> Production Cycles: <u>81,697</u>		Repair Comments: <small>This section is utilized by the persons who repaired the mold to make comments concerning the repair, or to answer any concerns noted in the above (Maintenance Instructions) section.</small>		Top Moveable Half 				
Work Order: <u>238299</u> Date Repair: <u>10/3/2002</u> Completed: Repair Hours: <u>17</u> Repaired By: <u>Goodwreck, John</u>				Flash on Flange Flash on Body Long Gate Sticks on Core Vertical Flash Open End Non-Fill /Shorts				
DEFECTS		CORRECTIVE ACTION		2003: Electron Cover				
Caused By	Pos #	Defect	Tooling	Corrective Action	Date	Rpr Hrs	Technician	Comments
All	All	General Cleaning	None Used	Chained Level "G"	10/3/2005	9:00	Kriegle, Kirs	
E3	03	Flash on Flange	C.H. Stripper Ring	Replaced	10/2/2005	2:00	Kriegle, Kirs	
E4	04	Flash on Flange	C.H. Stripper Ring	Replaced	10/2/2005	2:00	Kriegle, Kirs	
E6	06	Long Gate	H.H Gate Insert NBN CAVITY NUMBER !!	Replaced	10/2/2005	4:00	Kriegle, Kirs	

Maintenance Timeline

This report will provide you a quick synopsis of when a mold was started and stopped, how long it ran, in which press, why was it stopped or pulled, maintenance instructions and repair comments.

This report is useful in:

- Troubleshooting problems during trial start-ups or anytime a mold experiences multiple simultaneous issues.
- Comparing this documentation to relevant process or other maintenance data.
- Establishing a “real time” performance/maintenance timeline of a mold to better understand the correlation between maintenance requested, implemented the effectiveness of the repair.

Maintenance Timeline									Plastics R Us ISO-9008
Mold Name: 2003					Product Line: Amp Cover				
Mold Desc: Electron Cover					Product Part: AM-12390,AM-12354				
Start Date	Start Time	Stop Date	Stop Time	Pres	Config	Est. Time	Stop Reason	Maintenance Instructions	Mold Repair Comments
9/18/2002	17:00	10/1/2002	23:00	9	Red	13 Days, 6 Hours	C/R & R/R	This section can be used to include specific instructions concerning areas of the mold to be checked, cleaning level required including maintenance instructions from supervisor or processing technicians.	This section is utilized by the persons who repaired the mold to make comments concerning the repair, or to answer any concerns noted in the above (Maintenance Instructions) section.
								If molds are sent out for repair, use this section to alert the company performing the repair about existing conditions that need attention.	
12/23/2002	2:00	1/2/2003	1:00	12	Clear	9 Days, 23 Hours	C/R & Rack-R/R Complete	Short R/R. 1 repeater... NC P #192883 for 10A.	Manifold leaking slightly at position 1A. Cleared for now. Reworked Gates are too brittle seem to break easily. Talk to vendor about this.
2/2/2003	4:00	2/23/2003	14:00	12	Red	21 Days, 10 Hours	C/R & Changeover	Send mold to Cardinal Mold & Die for repairs. Please address these issues: 1. Make new stop bushings 2. Ejector Pin springs sticking and breaking 3. Please measure and record all gate diameters 4. Check Piston Ctrp o-rings.	1. Made 4 new stop bushings (that fit over the shoulder bolts). 2. Reworked the 2 problematic spring loaded ejector pins that have been sticking. Reamed pilot holes and made new pins out of bronze. Should be OK now. 3. Measured all Gate dia. And marked size on mold map. 4. Piston Ctrp O-Rings were bad. Replaced all and should fit all Long Gates.

Defect Cost Analysis

This report will show a list of defects, location and type repaired in a mold and a breakdown of the parts/labor and costs that were used during the corrective action to resolve the defect. Within this detailed report, the user can see everything related to the specific defect discovery date and resolution. In addition to mold start information (Start/Stop Date and Times) and who started the mold, it can be quickly determined what tooling was used in which cavity position and who implemented the repair. Part and labor prices are determined from values recorded from the Tooling List in the Detail Mold Information section and Hourly Rate in the Employees tab of the Company Information section. Subtotals for these costs are separated for each defect and the totals are displayed at the bottom of the report.

Tracking specific defect repair costs allows the user to:

- Financially analyze specific defect resolutions
- Financially analyze cleaning costs
- Improve accuracy in tooling budget planning
- Cost justify cleaning equipment such as ultrasonic cleaners and ice blasters
- Employee vs. defect tracking

Defect Cost Analysis							Plastics R Us ISO-9009		
Mold Name: 2003 Mold Desc: Electron Cover				Product Line: Amp Cover Product Part: AM 12390,AM 12354					
Start Date: 9/18/2002 Start Time: 17:00 Configuration: Red Stop Date: 10/1/2002 Stop Time: 23:00 Est. Time Run: 13 Days, 6 Hours				Started By: Kris Kringle Press Number 9					
Corrective Action		Tooling Used	Qty	Part No.	Tooling Cost	Repaired By	Repair Hours	Labor Cost	Line Total
RepBed	C.H. Stripper Ring	1	7488944-32	\$134.00	Kringle, Kris	2.00	\$100.00	\$234.00	
Must be ground to fit each pocket.									
Cavity Number	Cavity Position	Defect	Date Defect Noted						
E3	D3	Flash on Flange	2/23/2003						
Corrective Action		Tooling Used	Qty	Part No.	Tooling Cost	Repaired By	Repair Hours	Labor Cost	Line Total
RepBed	C.H. Stripper Ring	1	7488944-32	\$134.00	Kringle, Kris	2.00	\$100.00	\$234.00	
Must be ground to fit each pocket.									
Cavity Number	Cavity Position	Defect	Date Defect Noted						
E4	D4	Flash on Flange	10/1/2003						

Defect Tracking

This report will show a list of Defects observed in a mold by its cavity I.D number and position number organized by Start/Stop Dates and Times. After selecting the desired date period, a report listing the specific mold information and the defects observed during that period will be created.

Accurate defect tracking allows the user to:

- Track trends and patterns more effectively
- Target prevailing defects
- Identify repeating or reoccurring defects

Defect Tracking

Plastics R Us
ISO-9001

Mold Name: 2003	Product Line: Amb Cover				
Mold Desc: Electron Cover	Product Part: AM-12390,AM-12354				
Start Date: 9/18/2002	Start Time: 17:00	Config: Red	Start By: Kit Krieger		
Stop Date: 10/1/2002	Stop Time: 23:00	Run Time: 13 Days, 6 Hours	Run #: 9		
Cavity #	Position	Defect Description	Date Noted	Time Noted	Noted By
C9	02	Flash on Flange	2/29/2002	14:00	Dept QA
C9	03	Long Gate	2/29/2002	14:00	Mike Lee
A11	A1	General Cleaning	10/1/2002	22:00	Mike Johnson
C4	04	Flash on Flange	10/1/2002	22:00	Mike Lee
Total: 4					

Wednesday, November 20, 2002

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Page 1 of 2

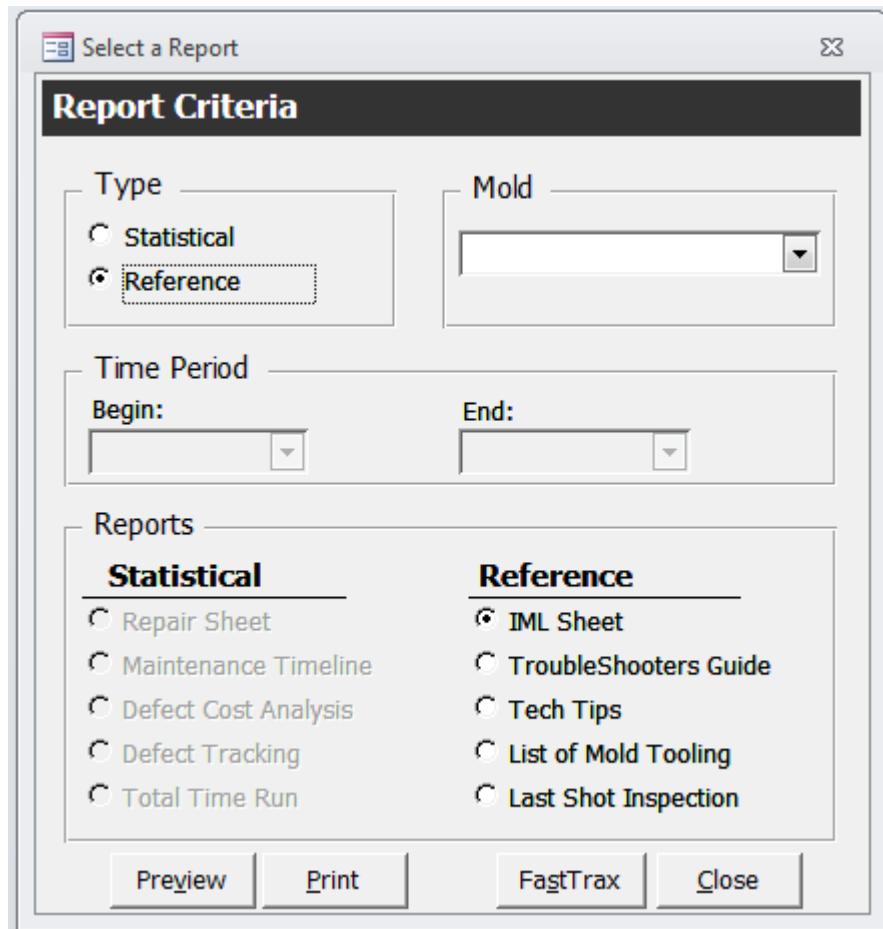
Total Time Run

This report will show the total time a mold has been running in a press by Start/Stop Dates and Times. After selecting the desired date period, a report listing the specific mold information and the total time run, in days/hours/minutes, will be created. The subtotal of the total time run for each date will appear and a Total Time Run value will be displayed at the bottom of the report.

Total Time Run							Plastics R Us ISO-9001
Mold Name: 2003 Mold Description: Electro Cover				Product Line: Amp Cover Product Part: AM-12390 AM-12354			
Start Date	Start Time	Stop Date	Stop Time	Press No.	Config	Total Time & Run	
2/12/2002	11:00	10/12/2002	29:00	2	Red	19 Days, 8 Hours	
2/12/2002	2:00	4/2/2002	1:00	12	Clear	2 Days, 23 Hours	
2/12/2002	4:00	3/29/2002	14:00	12	Red	21 Days, 10 Hours	
Total # of Production Runs: 3				Total: 44 Days, 15 Hours			

Reference Reports

Reference Reports for molds can be viewed or printed by simply clicking on "Reference" and choosing a mold from the drop down list or by typing in the mold number. Then select what type of report you want from the list under Reference Reports.



IML Sheet

This serves as a performance monitoring worksheet to be placed near the mold while it is operating in the press. It will retain up to three Start/Stop times with a generous area to import a digital image or drawing of the Mold Cavity Layout and an In-Press Servicing Frequency number and sign-off area. There is a table for process technicians to record part/mold defect criteria, specifying whether the defect is a Block off or a Q/A observation along with several areas for general performance comments from process technicians. Your list of top ten defects and the top ten reasons why the mold might be pulled are displayed at the bottom of the page. (See Servicing Tab under Detail Mold Information Button for instructions on populating these lists).

On the back (top) of the IML Sheet is a continuation of the Block off Table for multi-cavity molders and then a separate table for documenting In-Press Maintenance required and Corrective Actions performed on the mold while it was in the press. This design feature allows you to track and run a report of In-Press Maintenance events separately, and in order of occurrence with other events taking place with this mold. The IML Sheet also has the capability to list up to ten In-Press Servicing instructions at the bottom of the page. (See Servicing Tab under Detail Mold Information Button for instructions on populating this list).

To create an IML Sheet, simply click on the Reports button from the main menu and choose Reference as the Type of report and then choose which mold you want an IML Sheet for. Print off multiple copies and keep them in the molding office files for mold set technicians to place at the press whenever a mold is installed.

Plastics R Us

Injection Mold Layout Sheet

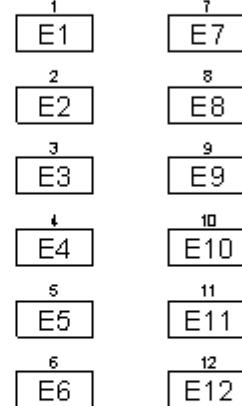
EO-9012

2003: Electron Cover

Work Order # _____ Pre # _____

Start Date Start Time Started By Config Stop Date Stop Time Stopped By Stop Reason

Top Ejector Half



Defect Listing

Reason Pulled

Product Defects

<input type="checkbox"/> CIR & Run	<input type="checkbox"/> External Water Leak	<input type="checkbox"/> Long Gate (105)	<input type="checkbox"/> Won't Shoot
<input type="checkbox"/> CIR & Rack-Run Complete	<input type="checkbox"/> Finish bases	<input type="checkbox"/> Skid Block Off	<input type="checkbox"/> Run At Gate
<input type="checkbox"/> Reached Cycle Limitations	<input type="checkbox"/> Gate bases	<input type="checkbox"/> Flash Top Skid (100)	<input type="checkbox"/> Skid On Body
<input type="checkbox"/> Cavitation	<input type="checkbox"/> Flash bases	<input type="checkbox"/> Flash Bottom Skid (100)	<input type="checkbox"/> Broken/Cracked Gate Insert
<input type="checkbox"/> Internal Water Leak	<input type="checkbox"/> Mobile bases	<input type="checkbox"/> Flange Off	

Comments:

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APPLIED ECOLOGY

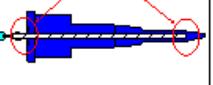
Page 1 of 3

Front of IML

Back of IML

TroubleShooters Guide

This report should be printed out and inserted into a Mold Maintenance Manual. A standard 3-ring notebook works fine for this. The manual will serve as a hardcopy shop floor guide of complete Defect identification criteria, Probable Causes, Corrective and Preventative actions to follow when resolving a problem or defect with the mold. This report will guarantee that any problems or defects the mold has experienced in the past are documented for an accurate approach for future defect resolution.

TroubleShooters Guide				
Mold Name: 2003		Plastics R Us ISO-9013		
Mold Desc: Electron Cover				
Defect and Image	Problem Explanation	Probable Cause	Corrective Action	Preventative Action
1 	Plastic sticks out past (more than .015) from the flange end of part.	1. Worn H.H. Cavity or H.H. Cavity Housing 2. Residue build-up between H.H. Cavity face and H.H. Cavity Housing.	1. Examine tooling fit under microscope and replace worn component. 2. Clean mold	Do a complete Last Shot Inspection of all parts before repairing mold.
2 	Plastic sticks out past the skirt more than .015 from the cone end of part.	1. Valve Pin tip to Insert Gate 1. NAS. Usually a worn H.H. Gate Bushing 2. Worn Valve Pin 3. Worn Piston Cup O-Rings.	1. Check fit of Valve Pin to Gate Insert under microscope. Interchange new tooling with old to determine which piece is worn out. 2. Replace piston cup o-rings.	Do a complete Last Shot Inspection of all parts before repairing mold.
3 	Core gets hot during production.	1. Bent Bubbler or an obstruction as shown in the image. 2. Water hooked up wrong.	1. Clean and replace bent or damaged Bubblers. 2. Verify correct water hookup.	DO NOT USE EFLON TAPE ON PIPE FITTINGS AND EXERCISE CAUTION WHEN ASSEMBLING THE BUBBLERS INTO THE CORES. THEY ARE EASILY BENT OR DAMAGED. SEE ASSEMBLY INSTRUCTIONS.

Tech Tips

This report will serve as a guide for critical steps, procedures, techniques or sequences to take when working with the mold. The Tech Tips procedures are categorized by: Disassembly, Cleaning, Final Check, Polishing Procedures and Tool Kit. This Report also includes the settings, measurements and procedures for the Hot Runner hardware if the mold is equipped with it.

Mold Name: 2003	Tech Tips	Plastics R Us
Mold Desc: Electron Cover		ISO-9014
Disassembly Procedures		
REMOVING THE MANIFOLD VALVE PINS:		
<ol style="list-style-type: none">1. Disconnect center Nozzle heater and thermocouple wires from the electric box After the mold has cooled to touch, carefully separate H.H. plates #3 & 4.2. Number the Ceramic Insulators and mark an orientation line (to reference their position)3. Heat the PROBES to 200 degrees, or just warm enough to remove the Insulators.4. Remove the insulators (use heat resistant gloves) and inspect the insulators for cracks/chips and clean out any plastic that will not allow for a flush fit back on to the probes.5. Heat the manifold to 350 degrees.6. Using a slide hammer, (the hammer screws into the back of the piston cap) carefully remove the Valve Stems taking care not to bend or break the Stems.7. Handle all tooling carefully and do not mix anything mix.		
REMOVING AND CLEANING THE MANIFOLD PISTON CUP HOUSINGS:		
<ol style="list-style-type: none">1. The manifold may be cold for this procedure.2. Remove the nut (15/16 --6 point socket) from the Housing.3. Use the slip hammer (in mold repair cabinet) to remove the Housing taking care not to ding the inside walls of the Housing.4. Use a small sharpened steel prick punch to remove the Crush Ring from the counter bore.5. Place the punch in the center of the Crush ring and tap very lightly until the Crush ring pops up, allowing you to get underneath it for easy removal. Discard the Crush Ring.6. Be extremely careful not to ding or scratch the counter bore or the area around it.7. Clean Housing by drilling out weep holes with the appropriate sized drill bit (see Tooling Stack View in Manual), place in Ultrasonic for 3 hours.8. Use the small brass rod in the tool kit to remove the slug of hardened weepage from the hole going through the stem of the Valve Pin Bushing (shown in blue in the Manifold Components drawing in the manual).9. While Housing are being cleaned, clean remainder of tooling. See cleaning details.		
Wednesday, November 30, 2005	MOLDTRAX Copyright 2005	Page 1 of 6

List of Mold Tooling

This report will serve as a hard copy reference for mold tooling and to record specific aspects of the tooling.

Mold Tooling					Plastics R Us 180-9015
Mold Name : 2003		Product Line: Amp Cover			
Description: Electro Cover		Product Part: AM-12390/AM-12354			
Type	Description	Detail Print #	Part#	Cost	
Caulky	*A* & *B* side Caulky Blocks (Matched ± 0)	1555-01	Z34C8-029	\$6,700.00	
Caulky	C.H. Core Pin	1555-29	738838-53	\$280.00	
	Also used in the 1996 mold. See Tech Tips for polishing and handling Instructions.				
Caulky	C.H. Stripper Ring	1555-94	7482944-32	\$134.00	
	Must be ground to 0.01 each side.				
Caulky	H.H. Gate Insert #BV CAVITY NUMBER !! 420 SS 52-54 Rc	1555-45	7388377	\$234.00	
	See Tech Tips for polishing and handling Instructions.				
Caulky	H.H. Core Pin	1555-47	7482847-53	\$2,500.00	
	See Tech Tips for polishing and handling Instructions.				
Frame	Parting Line Interlocks 1 spare set	-021	HP-75X137	\$350.00	
Frame	Pin, Leader	-11	LP-293	\$23.00	
	1.25 X ±.03 LG.				
Frame	Piston Cup O-Ring Kit	MM-02	7823	\$320.00	
Frame	Probe Heater	2009-21	238-PH-934	\$320.00	
Frame	Thermocouple, Probe	TC-00	TH-948J	\$57.00	
Frame	Value Pin	MM-210	92187	\$75.00	
Procedure	None Used			\$0.00	
Procedure	Tooling Not In Stock			\$0.00	

Last Shot Inspection

This report will serve as a worksheet to be filled out by Q/A personnel or any employee performing an inspection on the final production shot of parts collected before a mold is pulled for repairs or to rack. It will allow you to document part flash lengths and other issues which could soon become product nonconformances that you may want to address during future repairs. Utilizing Last Shot information allows you to work pro-actively by resolving defects before they become quality issues. The image or drawing of the part you copy/paste into the Detailed Mold Information section under Tech Tips will be generated on this report for more accurate defect identification. Once you construct your image or drawing, in your favorite drawing software, simply copy and paste it into the Last Shot Image or Diagram of Part box under “Specs” found in the Detail Mold Information section. To position the image (left, right, centered, etc...) in the Last Shot Image area on the Last Shot Inspection Sheet, box the image within the drawing program that you are using, and adjust it to fit the box on the Last Shot Inspection Sheet.

2003: Electron Cover

Open Cavity: _____

Sample Collected: _____

Samples Collected

Date: _____

Time: _____

By: _____

Parts Inspected

Date: _____

Time: _____

By: _____

Product Defects

Long Gates (.015)

Shuttle Gate Off

Flash Top Shut (.005)

Flash Bottom Shut (.005)

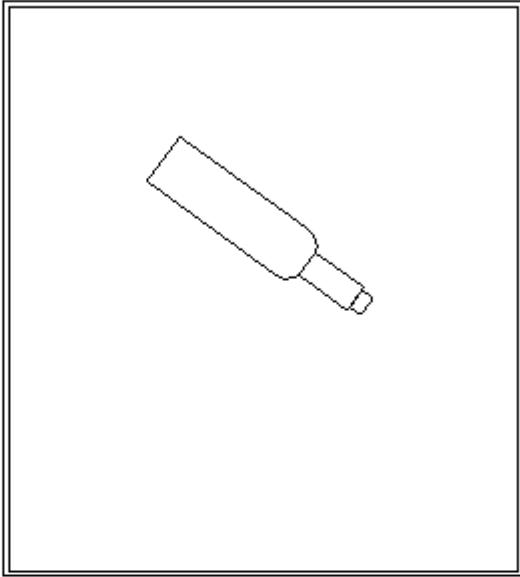
Flame Off

Worn Shut

Burn At Gate

Scuff On Body

Broken Coated Gate Insert



Measure and Record

All Gates

Flash Over 1/2 of Limit

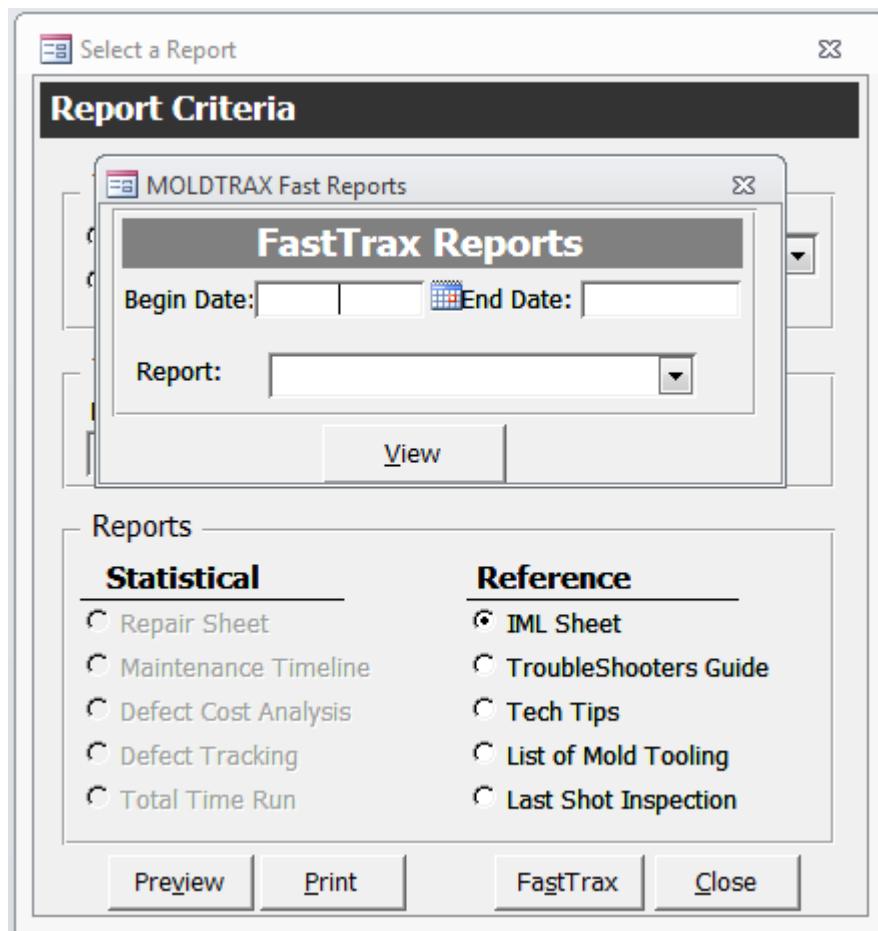
Visual Only

Flash Limits

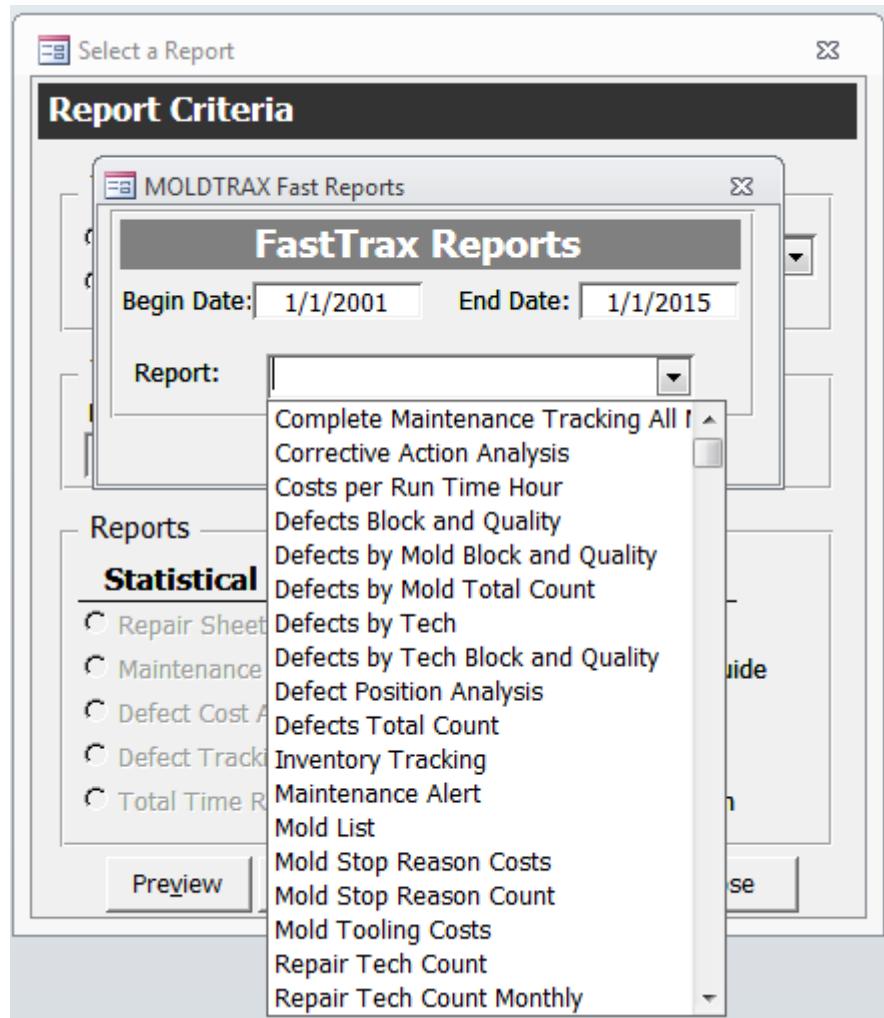
Cavity Number						

FASTTRAX REPORTS

The new FastTrax Reports for molds can be viewed by simply clicking on “FastTrax” and typing in a date range (Begin Date then End Date).



Then simply pick a report from the drop-down list



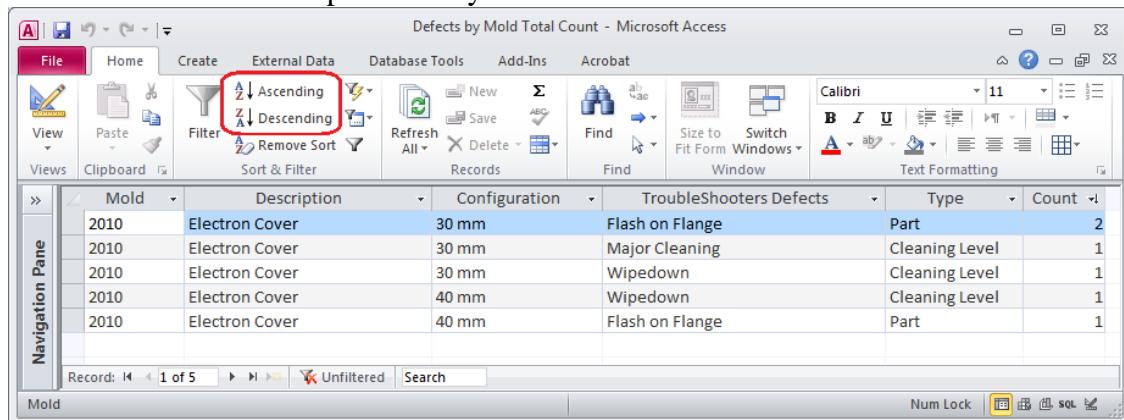
FastTrax Reports

FastTrax reports allow the user to quickly summarize and view mold performance and maintenance information that will reveal patterns and trends that will allow you to set goals and target nonconformance issues.

By simply sorting of different columns, mold numbers, part descriptions etc. the user is instantly attuned to how molds are performing and costs associated with maintenance problems.

Outlined on the next few pages are examples of all 22 FastTrax Reports and a brief synopsis on how they can work for you.
 Typical Microsoft sorting icons highlighted in the first report can be used in all 20 reports.

Use these icons to sort alphabetically



Defects by Mold Total Count - Microsoft Access

File Home Create External Data Database Tools Add-Ins Acrobat

View Paste Filter Sort & Filter

Ascending Descending Remove Sort

Mold Description Configuration TroubleShooters Defects Type Count

2010 Electron Cover 30 mm Flash on Flange Part 2

2010 Electron Cover 30 mm Major Cleaning Cleaning Level 1

2010 Electron Cover 30 mm Wipedown Cleaning Level 1

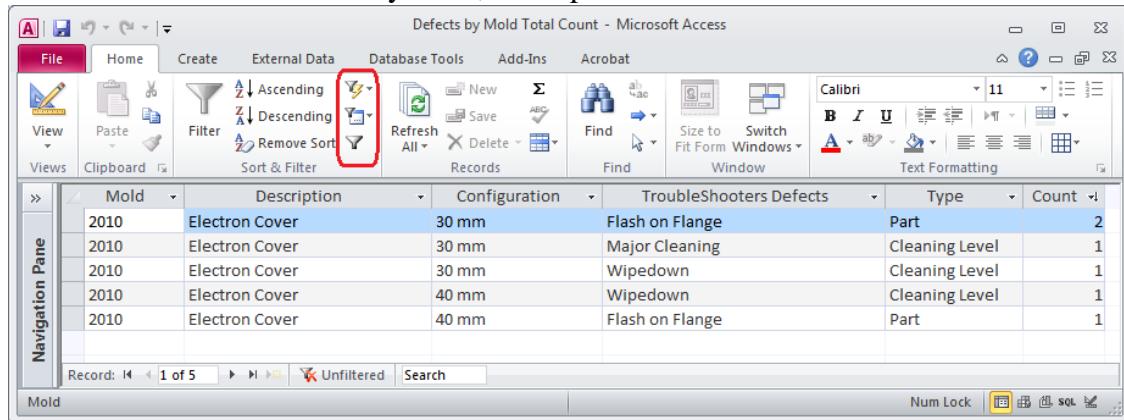
2010 Electron Cover 40 mm Wipedown Cleaning Level 1

2010 Electron Cover 40 mm Flash on Flange Part 1

Record: 14 1 of 5 Unfiltered Search

Mold

Use these icons to filter on any word, description or mold number



Defects by Mold Total Count - Microsoft Access

File Home Create External Data Database Tools Add-Ins Acrobat

View Paste Filter Sort & Filter

Filter

Mold Description Configuration TroubleShooters Defects Type Count

2010 Electron Cover 30 mm Flash on Flange Part 2

2010 Electron Cover 30 mm Major Cleaning Cleaning Level 1

2010 Electron Cover 30 mm Wipedown Cleaning Level 1

2010 Electron Cover 40 mm Wipedown Cleaning Level 1

2010 Electron Cover 40 mm Flash on Flange Part 1

Record: 14 1 of 5 Unfiltered Search

Mold

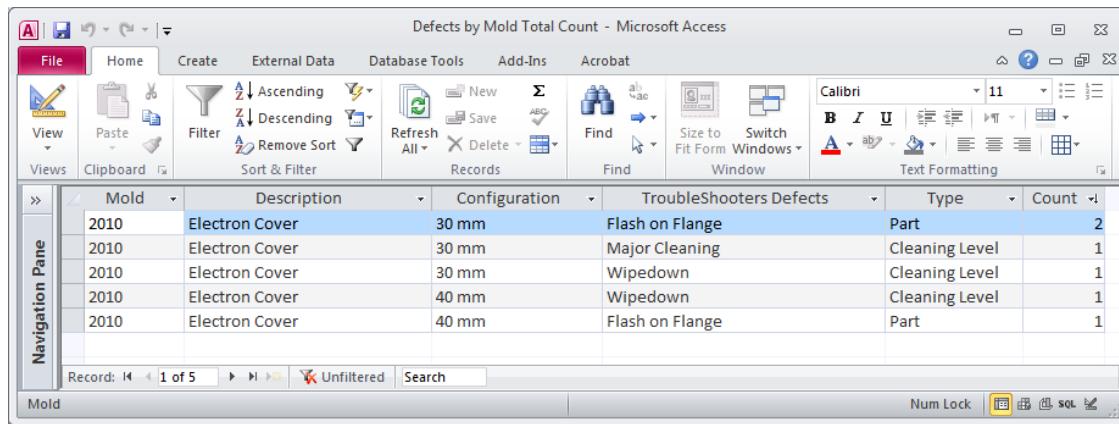
To export your filtered mold data to Excel, press the 'Ctrl' and 'A' keys on the keyboard to highlight all the records, then press the Excel smart icon to bring up Excel and then paste the mold data into it.

Defects Total Count Report

This report displays defects, the type of defect and the total count of the defects in your chosen time frame. By categorizing your defects i.e. Electrical, Part, Mold etc, you can quickly determine which type of defect is most frequent.

Defects By Mold Total Count Report

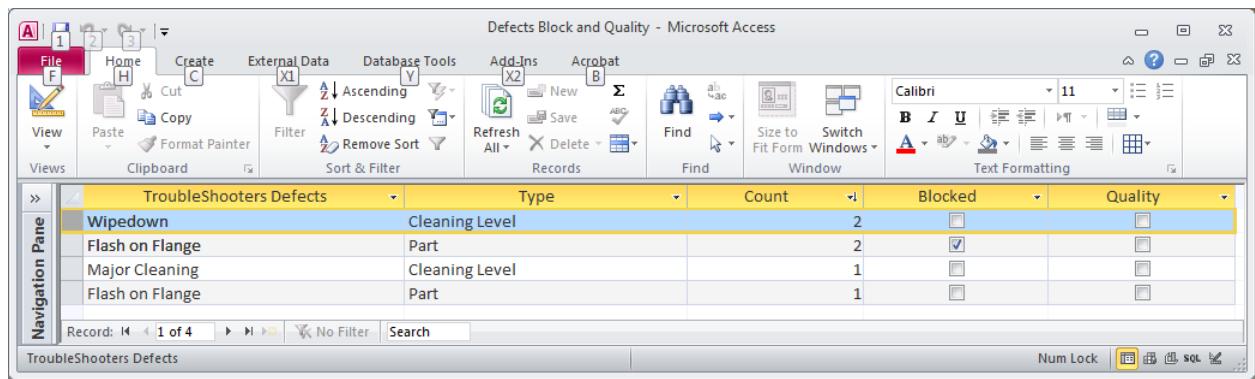
This report displays defects by mold, description, configuration, type and the total count of the defects in your chosen time frame. By categorizing your defects i.e. Electrical, Part, Mold etc, you can quickly determine which type of defect is most frequent, and with which mold or part configuration or product line.



Mold	Description	Configuration	TroubleShooters Defects	Type	Count
2010	Electron Cover	30 mm	Flash on Flange	Part	2
2010	Electron Cover	30 mm	Major Cleaning	Cleaning Level	1
2010	Electron Cover	30 mm	Wipedown	Cleaning Level	1
2010	Electron Cover	40 mm	Wipedown	Cleaning Level	1
2010	Electron Cover	40 mm	Flash on Flange	Part	1

Defects Block and Quality

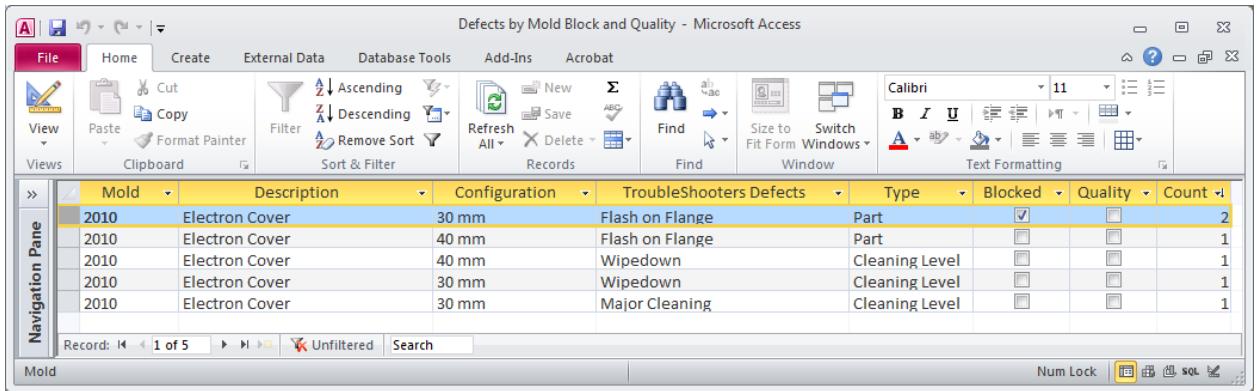
This report, for multicavity molds where cavities are sometimes blocked off, displays defects by type, the total count of the defects, and whether the defect was blocked off or a potential quality issue that is close to being a non-conformance part in your chosen time frame.



TroubleShooters Defects	Type	Count	Blocked	Quality
Wipedown	Cleaning Level	2	<input type="checkbox"/>	<input type="checkbox"/>
Flash on Flange	Part	2	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Major Cleaning	Cleaning Level	1	<input type="checkbox"/>	<input type="checkbox"/>
Flash on Flange	Part	1	<input type="checkbox"/>	<input type="checkbox"/>

Defects By Mold, Block and Quality

This report, for multicavity molds where cavities are sometimes blocked off, displays defects by mold, type, configuration and the total count of the defects, and whether the defect was blocked off or a potential quality issue that is close to being a non-conformance part in your chosen time frame.

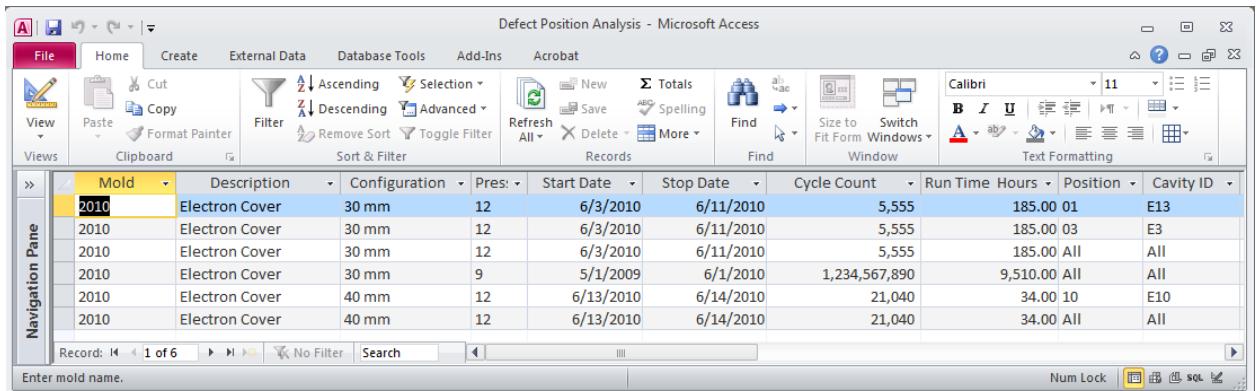


The screenshot shows a Microsoft Access window titled 'Defects by Mold Block and Quality - Microsoft Access'. The table has the following columns: Mold, Description, Configuration, TroubleShooters Defects, Type, Blocked, Quality, and Count. The data is as follows:

Mold	Description	Configuration	TroubleShooters Defects	Type	Blocked	Quality	Count
2010	Electron Cover	30 mm	Flash on Flange	Part	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2
2010	Electron Cover	40 mm	Flash on Flange	Part	<input type="checkbox"/>	<input type="checkbox"/>	1
2010	Electron Cover	40 mm	Wipedown	Cleaning Level	<input type="checkbox"/>	<input type="checkbox"/>	1
2010	Electron Cover	30 mm	Wipedown	Cleaning Level	<input type="checkbox"/>	<input type="checkbox"/>	1
2010	Electron Cover	30 mm	Major Cleaning	Cleaning Level	<input type="checkbox"/>	<input type="checkbox"/>	1

Defect Position Analysis

This report displays all defect information seen in previous reports and includes press, mold start, stop dates, cavity blocked date, position and cavity I.D. number for a complete defect analysis. Use this report to discover trends and patterns concerning where defects are occurring and how in your chosen time frame.



The screenshot shows a Microsoft Access window titled 'Defect Position Analysis - Microsoft Access'. The table has the following columns: Mold, Description, Configuration, Pres, Start Date, Stop Date, Cycle Count, Run Time Hours, Position, and Cavity ID. The data is as follows:

Mold	Description	Configuration	Pres	Start Date	Stop Date	Cycle Count	Run Time Hours	Position	Cavity ID
2010	Electron Cover	30 mm	12	6/3/2010	6/11/2010	5,555	185.00	01	E13
2010	Electron Cover	30 mm	12	6/3/2010	6/11/2010	5,555	185.00	03	E3
2010	Electron Cover	30 mm	12	6/3/2010	6/11/2010	5,555	185.00	All	All
2010	Electron Cover	30 mm	9	5/1/2009	6/1/2010	1,234,567,890	9,510.00	All	All
2010	Electron Cover	40 mm	12	6/13/2010	6/14/2010	21,040	34.00	10	E10
2010	Electron Cover	40 mm	12	6/13/2010	6/14/2010	21,040	34.00	All	All

Defects by Technician

This report displays the total amount of defects blocked by process technicians in your chosen time frame.

The screenshot shows the Microsoft Access ribbon interface with the 'File' tab selected. The main window displays a query results grid with two rows of data. The columns are labeled 'Tech' and 'Count'. The first row shows 'Kringle, Kris' with a count of 4, and the second row shows 'Johnson, Mike' with a count of 2. The 'Navigation Pane' on the left is collapsed. The status bar at the bottom shows 'Record: 1 of 2' and 'No Filter'.

Tech	Count
Kringle, Kris	4
Johnson, Mike	2

Defects by Technician Block and Quality

This report displays the total amount of defects blocked or noted by process technicians in your chosen time frame.

Defects by Tech Block and Quality - Microsoft Access

Tech	Blocked	Quality	Count
Kringle, Kris	<input type="checkbox"/>	<input type="checkbox"/>	2
Kringle, Kris	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2
Johnson, Mike	<input type="checkbox"/>	<input type="checkbox"/>	2

Record: 1 of 3 | No Filter | Search

Mold Stop Reason Count

This report displays the reasons and total count of mold stops in your chosen time frame. These cost report calculations are based upon the mold run times specified in the in the FastTrax report criteria screen.

The screenshot shows the Microsoft Access ribbon with the 'File' tab selected. The main area displays a query results grid titled 'Mold Stop Reason Count - Microsoft Access'. The grid shows three rows of data:

Mold Stop Reason	Count
X-Flashed Manifold	1
Clean Only & Run	1
C/R & Rack--Run Complete	1

At the bottom, the status bar shows 'Record: 1 of 3' and 'No Filter'. The 'Navigation Pane' is visible on the left side of the interface.

Mold Stop Reason Costs

This report displays the reasons and total count of mold stops and associated costs in tooling and labor in your chosen time frame.

Mold Stop Reason	Stop Count	Labor Hours	Labor Cost	Tooling Cost	Total Cost
X-Flashed Manifold	1	31.00	\$2,026.00	\$6,352.00	\$8,378
C/R & Rack-Run Complete	1	8.00	\$400.00	\$0.00	\$400
Clean Only & Run	1	8.00	\$400.00	\$0.00	\$400

Complete Maintenance Tracking All Molds

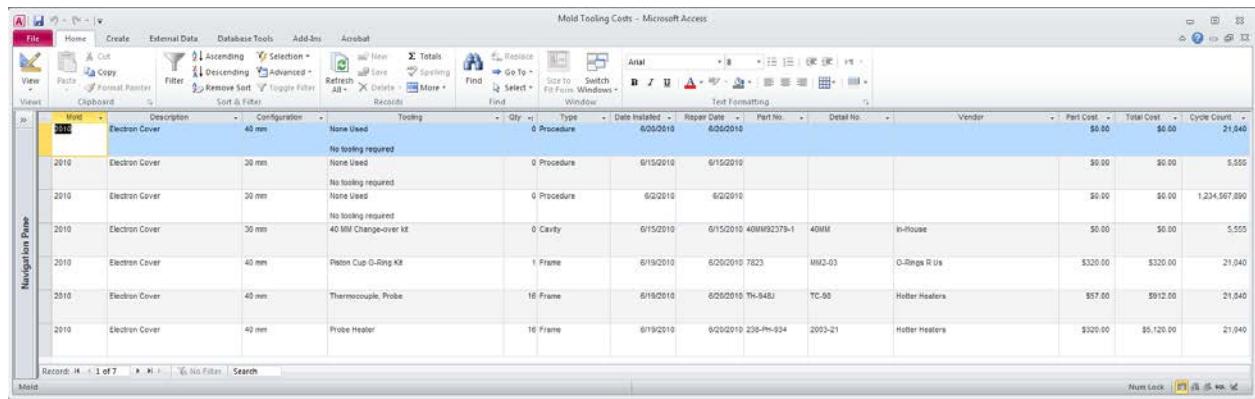
This comprehensive report (shown in 2 scrolled positions) displays 22 different aspects of a molds production run including cycles, hours run, maintenance instructions and repair comments for a complete analysis.

Mold	Description	Configuration	Start Date	Start Time	Press	Start Tech	Stop Date	Stop Time	Mold Stop Reason
2010	Electron Cover	30 mm	5/1/2009	17:00	9	Kringle, Kris	6/1/2010	23:00	C/R & Rack-Run Complete
2010	Electron Cover	30 mm	6/3/2010	8:00	12	Zart, Mote	6/11/2010	1:00	Clean Only & Run
2010	Electron Cover	40 mm	6/13/2010	4:00	12	Kringle, Kris	6/14/2010	14:00	X-Flashed Manifold

Cycle Count	Run Time Hours	Stop Tech	Repair Date	Repair Hours	Status	Repair Tech	Work Ord	Actual	Adjust
1,234,567,890	9,510.00	Zart, Mote	6/2/2010	8	Green Tag	Goodwrench, John	Your ERP W/	9,510.00	0.00
5,555	185.00	Kringle, Kris	6/15/2010	8	Green Tag	Goodwrench, John	Your ERP W/	185.00	0.00
21,040	34.00	Zart, Mote	6/20/2010	31	Green Tag	Goodwrench, John	Your ERP W/	34.00	0.00

Mold Tooling Costs

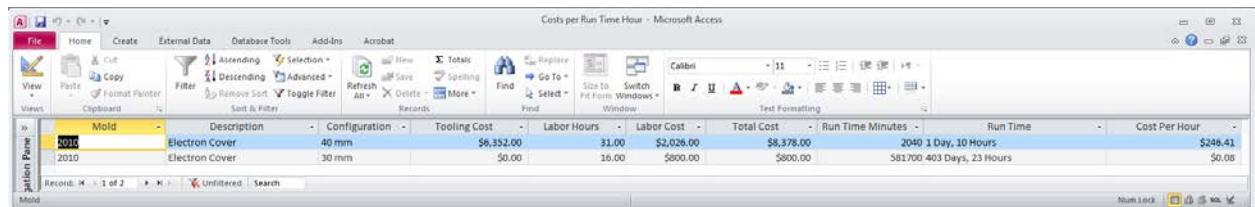
This report shows the total costs of parts installed in the mold between the dates specified in the FastTrax report criteria screen. This report displays important tooling information including quantity used, date the part was installed, part number, vendor, unit cost and the total cost a mold repair, part or product line. These cost report calculations are based upon the corrective action dates specified in the in the FastTrax report criteria screen.



Mold	Description	Configuration	Tooling	Qty	Type	Date Installed	Repair Date	Part No.	Detail No.	Vendor	Part Cost	Total Cost	Cycle Count
2010	Electron Cover	40 mm	None Used		No tooling required						\$0.00	\$0.00	21,840
2010	Electron Cover	30 mm	None Used		No tooling required						\$0.00	\$0.00	5,555
2010	Electron Cover	30 mm	None Used		No tooling required						\$0.00	\$0.00	1234,567,899
2010	Electron Cover	30 mm	40 MM Change-over Kit		0 Cavity	6/15/2010	6/15/2010	40MM92279-1	40MM	In-house	\$0.00	\$0.00	5,555
2010	Electron Cover	40 mm	Piston Cup O-Ring Kit		1 Frame	6/19/2010	6/20/2010	7823	MW2-03	O-Rings R Us	\$320.00	\$320.00	21,040
2010	Electron Cover	40 mm	Thermocouple, Probe		16 Frame	6/19/2010	6/20/2010	Th-948J	TC-90	Hotter Heaters	\$57.00	\$912.00	21,540
2010	Electron Cover	40 mm	Probe Heater		16 Frame	6/19/2010	6/20/2010	238-Ph-924	2053-21	Hotter Heaters	\$320.00	\$6,120.00	21,840

Costs Per Run Time Hour

This unique report divides tooling and labor costs by the hours of run time to determine a maintenance cost per hour of run (production) time. These cost report calculations are based upon the mold run times specified in the in the FastTrax report criteria screen.

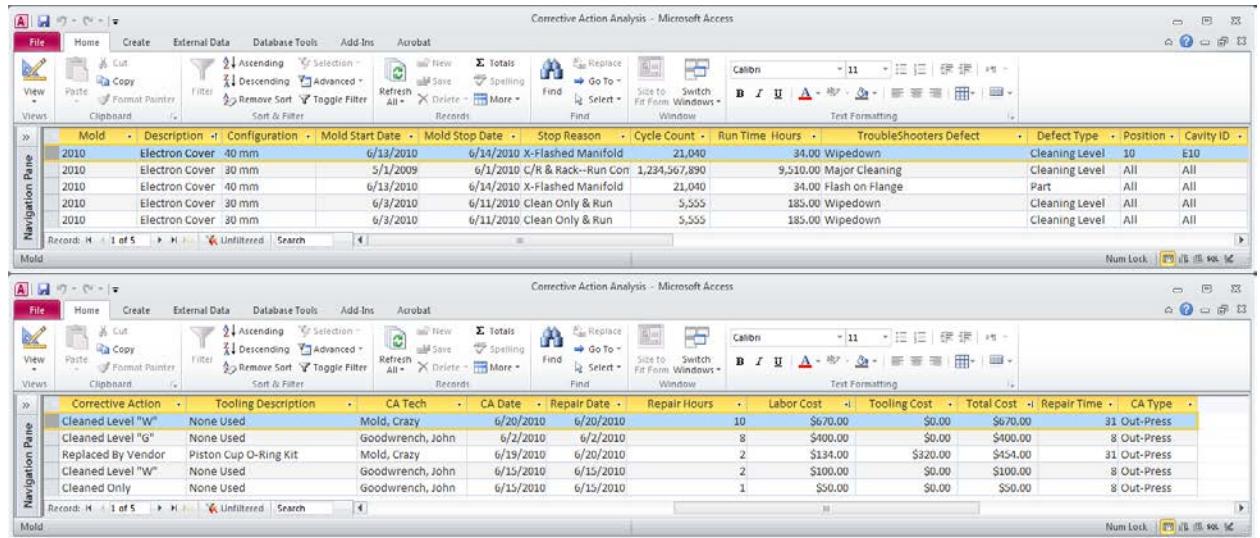


Mold	Description	Configuration	Tooling Cost	Labor Hours	Labor Cost	Total Cost	Run Time Minutes	Run Time	Cost Per Hour
2010	Electron Cover	40 mm	\$6,352.00	\$1.00	\$2,026.00	\$8,378.00	2040	1 Day, 10 Hours	\$248.41
2010	Electron Cover	30 mm	\$0.00	16.00	\$800.00	\$800.00	581700	403 Days, 23 Hours	\$0.08

Corrective Action Analysis Report

This report is a compilation of corrective actions performed on the mold between the dates specified in the FastTrax report criteria screen and is based upon the final repair date.

Another unique report only from MoldTrax allows the user complete flexibility in sorting and viewing all aspects of a corrective action. This report will display run dates, stop reasons etc. and associate them with relative costs in tooling and labor. These cost report calculations are based upon the corrective action dates specified in the in the FastTrax report criteria screen.



The screenshot shows two Microsoft Access tables side-by-side.

Corrective Action Analysis - Microsoft Access

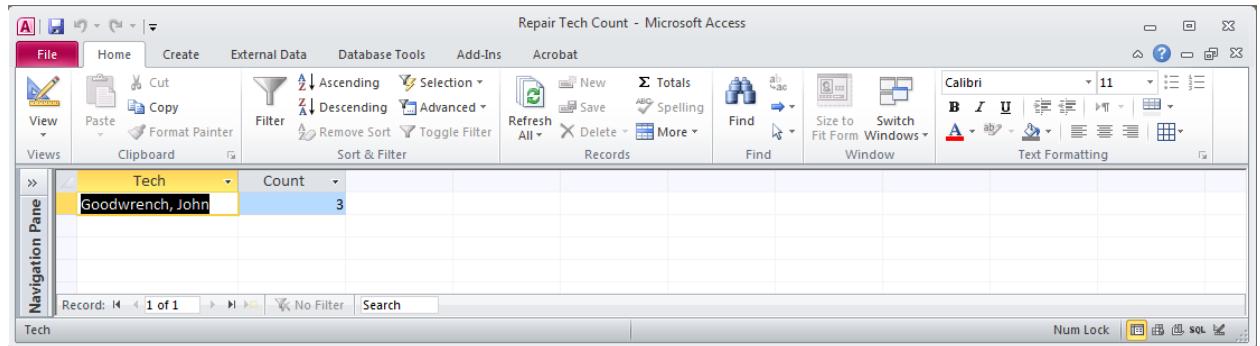
Mold	Description	Configuration	Mold Start Date	Mold Stop Date	Stop Reason	Cycle Count	Run Time Hours	TroubleShooters Defect	Defect Type	Position	Cavity ID
2010	Electron Cover	40 mm	6/13/2010	6/14/2010 X-Flashed Manifold	21,040	34.00	Wipedown	Cleaning Level	10	E10	
2010	Electron Cover	30 mm	5/12/2009	6/1/2010 C/R & Rack-Run Con	1,234,567,890	9,510.00	Major Cleaning	Cleaning Level	All	All	
2010	Electron Cover	40 mm	6/13/2010	6/14/2010 X-Flashed Manifold	21,040	34.00	Flash on Hinge	Part	All	All	
2010	Electron Cover	30 mm	6/3/2010	6/11/2010 Clean Only & Run	5,555	185.00	Wipedown	Cleaning Level	All	All	
2010	Electron Cover	30 mm	6/3/2010	6/11/2010 Clean Only & Run	5,555	185.00	Wipedown	Cleaning Level	All	All	

Repair Tech Count - Microsoft Access

Corrective Action	Tooling Description	CA Tech	CA Date	Repair Date	Repair Hours	Labor Cost	Tooling Cost	Total Cost	Repair Time	CA Type
Cleaned Level "W"	None Used	Mold, Crazy	6/20/2010	6/20/2010	10	\$670.00	\$0.00	\$670.00	31	Out-Press
Cleaned Level "G"	None Used	Goodwrench, John	6/2/2010	6/2/2010	8	\$400.00	\$0.00	\$400.00	8	Out-Press
Replaced By Vendor	Piston Cup O-Ring Kit	Mold, Crazy	6/19/2010	6/20/2010	2	\$134.00	\$320.00	\$454.00	31	Out-Press
Cleaned Level "W"	None Used	Goodwrench, John	6/15/2010	6/15/2010	2	\$100.00	\$0.00	\$100.00	8	Out-Press
Cleaned Only	None Used	Goodwrench, John	6/15/2010	6/15/2010	1	\$50.00	\$0.00	\$50.00	8	Out-Press

Technician Repair Count

This report shows how many molds a technician has repaired and signed off on over your chosen time frame.



The screenshot shows the 'Repair Tech Count' table in Microsoft Access.

Repair Tech Count - Microsoft Access

Tech	Count
Goodwrench, John	3

Technician Repair Count Monthly

This report shows how many molds a technician has repaired by month and signed off on over your chosen time frame.

The screenshot shows the Microsoft Access ribbon menu with the 'Home' tab selected. The main area displays a table with three rows of data: 'Tech' (highlighted), '1', and 'Goodwrench, J'. The '1' and 'Goodwrench, J' rows are also highlighted. The ribbon tabs include 'File', 'Home', 'Create', 'External Data', 'Database Tools', 'Add-Ins', and 'Acrobat'. The 'Home' tab has sections for 'Views', 'Clipboard', 'Filter', 'Sort & Filter', 'Records', 'Find', 'Window', and 'Text Formatting'. The 'Text Formatting' section includes buttons for Calibri, 11pt, and various font styles. The status bar at the bottom shows 'Record: 1 of 2', 'No Filter', 'Search', 'Num Lock', and icons for 'Find', 'Select All', and 'SQL'.

Technician Repair Mold Count

This report shows which molds a technician has repaired and how many times over your chosen time frame.

The screenshot shows the Microsoft Access application window titled "Repair Tech Mold Count - Microsoft Access". The ribbon menu is visible with tabs for File, Home, Create, External Data, Database Tools, Add-Ins, and Acrobat. The Home tab is selected. The ribbon contains various icons for operations like Cut, Copy, Paste, and Find. Below the ribbon is a toolbar with icons for View, Clipboard, Filter, Sort & Filter, Refresh, Records, Find, Window, and Text Formatting. A navigation pane on the left lists tables: "Mold Count" (selected), "Mold" (disabled), "Mold Type", "Repair Tech", and "Repair Tech Type". The main area displays a table with columns: Name, Mold, Description, and Count. The data shows one record: Goodwrench, John, 2010, Electron Cover, Count 3. The status bar at the bottom shows "Record: 1 of 2" and "Unfiltered".

Process Technician Start Count

This report displays how many molds a process technician has started up over your chosen time frame.

Process Tech Start Count - Microsoft Access

File Home Create External Data Database Tools Add-Ins Acrobat

Views Clipboard Filter Sort & Filter Records Find Window Text Formatting

Navigation Pane

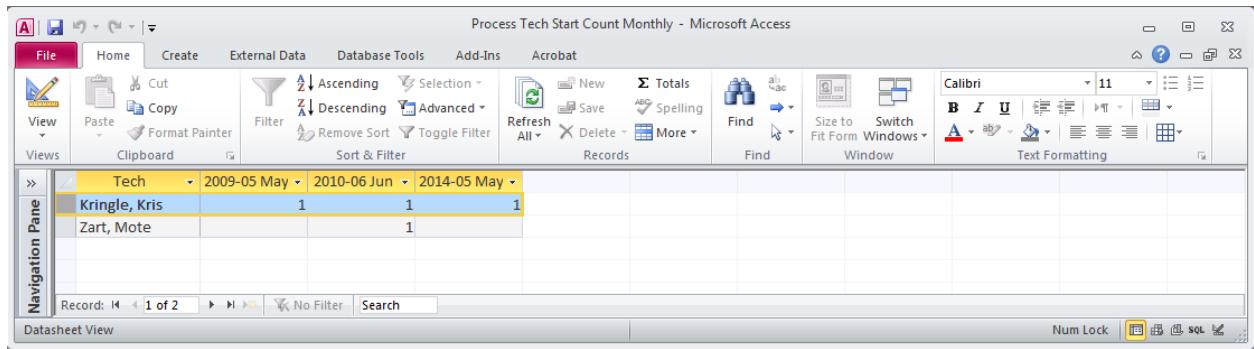
Tech	Count
Kringle, Kris	2
Zart, Mote	1

Record: 1 of 2 No Filter Search

Num Lock

Process Technician Start Count Monthly

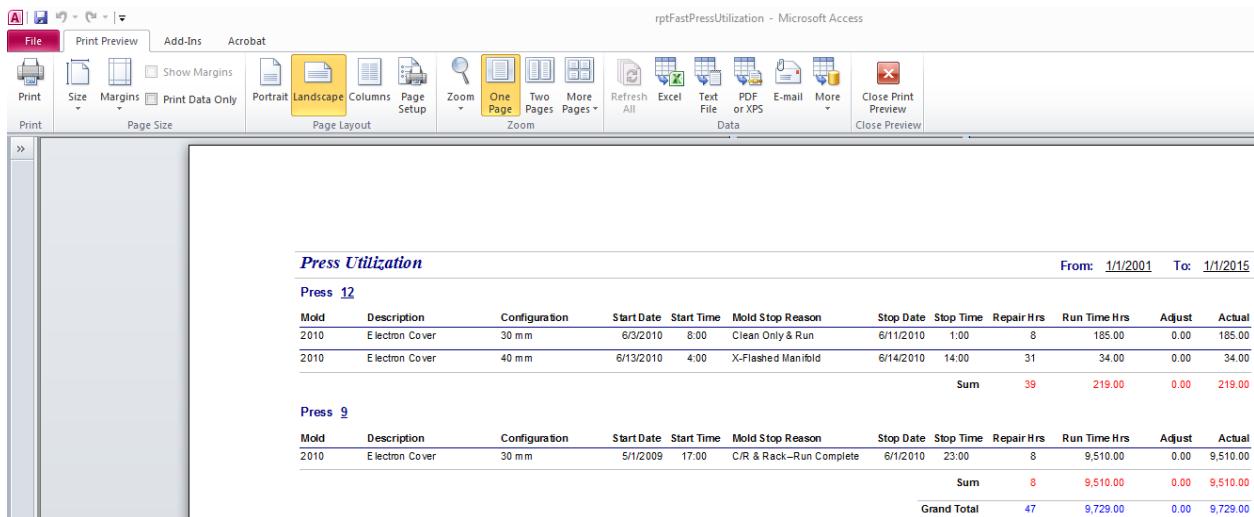
This report displays how many molds a process technician has started up by month over your chosen time frame.



Tech	Start Date	End Date	Stop Date
Kringle, Kris	2009-05 May	2010-06 Jun	2014-05 May
Zart, Mote			1

Press Utilization Report

This read-only report shows relevant press information concerning when a mold ran, why it was stopped, how long it ran and related repair hours. This information can be used to determine earned press hours and includes and grand total of hours run. Your chosen time frame is displayed in the upper right hand corner of the report.



Press Utilization												From: 1/1/2001	To: 1/1/2015
Press 12													
Mold	Description	Configuration	Start Date	Start Time	Mold Stop Reason	Stop Date	Stop Time	Repair Hrs	Run Time Hrs	Adjust	Actual		
2010	Electron Cover	30 mm	6/3/2010	8:00	Clean Only & Run	6/11/2010	1:00	8	185.00	0.00	185.00		
2010	Electron Cover	40 mm	6/13/2010	4:00	X-Flashed Manifold	6/14/2010	14:00	31	34.00	0.00	34.00		
								Sum	39	219.00	0.00	219.00	
Press 9													
Mold	Description	Configuration	Start Date	Start Time	Mold Stop Reason	Stop Date	Stop Time	Repair Hrs	Run Time Hrs	Adjust	Actual		
2010	Electron Cover	30 mm	5/1/2009	17:00	C/R & Rack-Run Complete	6/1/2010	23:00	8	9,510.00	0.00	9,510.00		
								Sum	8	9,510.00	0.00	9,510.00	
								Grand Total	47	9,729.00	0.00	9,729.00	

Mold List

This handy report displays all input information concerning specific characteristics about a single mold or all your molds.

Mold List - Microsoft Access

Mold Name	Mold Description	Mold Configuration	Product Part #	Owner ID	Total Cavity Cc	Repair Status	Resin Type
2010	Electron Cover	30 mm		8930-03		12 Green Tag	ABS
2010	Electron Cover	40 mm		8930-03		12 Green Tag	ABS
57-684B	Quarter Cap	30 mm					

Mold List - Microsoft Access

Date Acquired	Date De-Act	Cycle Time (sec)	Comments
9/26/2005			12 <div>Simply click on the star below and to the left to add more mol
9/26/2005			12 <div>Simply click on the star below and to the left to add more mol
			12 Only a Mold Number, Description and Cycle Time (in seconds) is re

Mold List - Microsoft Access

Nozzle Size	Sprue Size	Runner Size	Gate Size	Project Engineer	Height	Width	Depth	Weight	Width
.350	.325	.325	.050	Eric Johnson	24"	19"	22"	1100 lbs.	4"
.350	.325	.325	.050	Eric Johnson	24"	19"	22"	1100 lbs.	4"

Mold List - Microsoft Access

Width Open	Total Height	Ejector Stroke	TTHRSystem	TTHRSerialN	TTHRType	TTHRActuator	TTHRMaxOp	TTHRProbeT	TTHRProbeL	TTHRProbeH
4"	35"	2.25"								
4"	35"	2.25"								

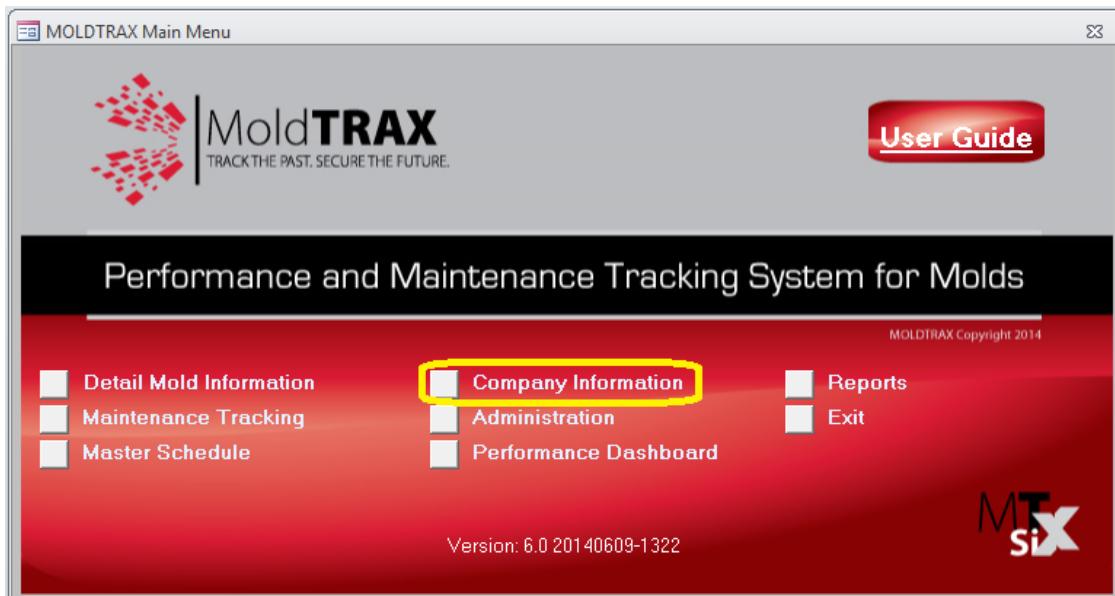
Inventory Tracking

MoldTrax

Inventory Tracking - Microsoft Access												
 Home Create External Data Database Tools Add-Ins Analyze  Ascending  Selection    Spelling              												
Mold Name	Mold Description	Description	Part No.	Detail No.	Vendor	Cost	Parts on	Reorder Level	Number Ordered	Date Ordered	Number Received	
2010	Electron Cover	None Used				\$0.00						
57-684B	Quarter Cap	Add tooling description by clicking on				\$0.00						
2010	Electron Cover	Tooling Not In Stock				\$0.00						
57-684B	Quarter Cap	Double click any of these fields to zoom				\$0.00						
2010	Electron Cover	"A" & "B" side Cavity Blocks (Matched 234CB-029	1555-01	Tooling R US	\$6,700.00							
2010	Electron Cover	Probe Heater	23B-PH-934	2003-21	Hotter Heaters	\$120.00						
2010	Electron Cover	40 MM Change-over kit.	40MM92379-1	40MM	In-House	\$0.00						
2010	Electron Cover	H.H Gate Insert	7388377	1555-45	Tooling R US	\$234.00						
2010	Electron Cover	C.H. Core Pin	7388378-93	1555-23	Tooling R US	\$890.00						
2010	Electron Cover	H.H. Core Pin	7488847-93	1555-47	Tooling R US	\$2,500.00						
2010	Electron Cover	C.H. Stripper Ring	7488944-32	1555-34	Tooling R US	\$134.00						
2010	Electron Cover	Piston Cup O-Ring Kit	7623	MM2-03	O-Rings R US	\$320.00						
2010	Electron Cover	Valve Pin	92187	MM-210	Tool Makers Inc.	\$75.00						
2010	Electron Cover	Parting Line Interlocks	NP-75X137	-021	Interlocks R US	\$150.00						
2010	Electron Cover	Pin, Leader	LP-293	-11	Tooling R US	\$23.00						
2010	Electron Cover	Thermocouple, Probe	TH-948J	TC-90	Hotter Heaters	\$57.00						

Maintenance Alert

COMPANY INFORMATION BUTTON



Managing Company Tab

This is a **REQUIRED** field. You must enter a company name under the Managing Company tab for proper reporting operations.

The Managing Company form will allow the user to input information relating to the Company Managing molds with the MoldTrax software. This form is designed to be a single document to record the name, mailing and contact information of the Company. Completing this form permits the Managing Company acting as a custom molder to track molds that are owned by another company, or to track molds they own and produce parts that are sold to Customers.

The screenshot shows the 'ToolingDocs' software interface for managing companies. The 'Managing Company' tab is selected. The 'Company Name & Address' section contains fields for Name (ToolingDocs), Address (1555 County Rd 995), City (Ashland), State/Prov (OH), ZIP/Postal (44805), and Country (USA). The 'Contact Information' section includes fields for Phone (419.289.0281), Fax, and Toll Free. The 'Web Information' section shows the Address (http://www.moldtrax.com) and Email. A large 'Company Notes' area is at the bottom.

The fields to complete are:

Company Name and Address

Name

Enter in the Managing Company name.

Address

Enter in the Managing Company's mailing address.

City

Enter in the city the Managing Company resides in.

State/Prov

Enter in the state the Managing Company resides in.

ZIP/Postal

Enter in the ZIP code used for mailing to the Managing Company.

Country

Enter in the country of the Managing Company.

Contact Information

Phone

Enter the phone number of the Managing Company.

Fax

Enter the fax number of the Managing Company.

Toll Free

Enter the toll free phone number of the Managing Company.

Web Information

Address

Enter in the web address of the Managing Company's home page.

Email

Enter in the email address of a main contact at the Managing Company.

Company Notes

Enter any other miscellaneous information required for the Managing Company.

Customers Tab

The Customers form will allow the Managing Company, acting as a custom molder who runs molds for others, to track them and their contact information here. As Customers are added, a dynamic Customer list on the left side of the screen will allow you to view all the Customers in the database. After a Customer is selected from the list on the left side of the screen, the related contact information will display on the right side of the screen. Three sections of contact information are provided and can be edited at any time.

The screenshot shows the MoldTrax software interface. The window title is 'Company' and the tab is 'ToolingDocs'. The 'Customers' tab is selected. The left pane shows a list of customers with 'Electronic Supplies' selected. The right pane shows customer details for 'Electronic Supplies' and contact information for three contacts (First, Second, and Third). A note at the bottom says 'Simply click on the star below to add more customers!'.

Customer Name & Address	
Name	Electronic Supplies
Address	2345 West East Street
City	San Diego
State/Prov	CA
Zip/Postal	23442
Country	USA
Phone	(419) 288-1234
Fax	(419) 288-1235
Web Site	www.elos.com

First Contact	
First Name	Brance
Last Name	Johnson
E-Mail	B.JJ@AOL.com
Phone	(419) 288-1234
Fax	(419) 288-1234
Mobile	(419) 288-1234

Second Contact	
First Name	
Last Name	
E-Mail	
Phone	
Fax	
Mobile	

Third Contact	
First Name	
Last Name	
E-Mail	
Phone	
Fax	
Mobile	

Customer Notes

Simply click on the star below to add more customers!

Record: 14 < 1 of 1 > No Filter Search

The fields to complete are:

Customer Name & Address

Name

Enter in the Customer Name.

Address

Enter in the Customers Mailing Address.

City

Enter in the City your Customer resides in.

State/Prov

Enter in the State or Providence your customer resides in.

ZIP/Postal

Enter in the ZIP Code used for mailing to the Customer.

Country

Enter in the Country of the Customer.

Phone

Enter the Phone Number of the Customer

Fax

Enter the Fax Number of the Customer.

Web Site

Enter in the Web Site Address of the Customer.

Contact Information can also be entered and tracked:

First Name

Enter in the First Name of the Customer Contact.

Last Name

Enter in the Last Name of the Customer Contact.

E-Mail

Enter in the Email Address of the Customer Contact.

Phone

Enter in the Phone Number and extension of the Customer Contact.

Fax

Enter in the Fax Number of the Customer Contact.

Mobile

Enter in the Cellular Phone Number of the Customer Contact.

Customer Notes

Enter any other miscellaneous information required for the Customer.

Vendors Tab

The Vendor form will allow the Managing Company to track their Vendor information. As new Vendors are added, a dynamic Vendor list on the left side of the screen will appear and allow viewing of all the Vendors in the MoldTrax database. Once a Vendor is selected from the list on the left side of the screen, its related contact information will display on the right side of the screen. Three sections of contact information are provided and can be edited at any time.

The screenshot shows the 'ToolingDocs' application window with the 'Vendors' tab selected. On the left, a list of vendors is displayed, with 'Molds R Us' selected. The right side of the screen contains form fields for vendor details and contact information. The vendor details are as follows:

Name	Molds R Us		
Address	94 Showny Dr		
City	Cleveland		
State/Prov	OH		
Zip/Postal	39405-93		
Country	USA		
Phone	230-122-0001		
Fax			
Web Site	www.MRUSId.olv		

On the right, there are three sections for contacts:

- First Contact:** First Name: Larry, Last Name: Zonka, E-Mail: lzonk@CM.org, Phone: 939-949-0220, Fax: 939-949-0220, Mobile: (empty)
- Second Contact:** First Name: (empty), Last Name: (empty), E-Mail: (empty), Phone: (empty), Fax: (empty), Mobile: (empty)
- Third Contact:** First Name: (empty), Last Name: (empty), E-Mail: (empty), Phone: (empty), Fax: (empty), Mobile: (empty)

Vendor Notes: Simply click on the star below to add more vendors!

Record: 14 1 of 2 Search

The fields to complete are:

Vendor Name & Address

Name

Enter in the Vendor Name.

Address

Enter in the Vendor Mailing Address.

City

Enter in the City your Vendor resides in.

State/Prov

Enter in the State your Vendor resides in.

ZIP/Postal

Enter in the ZIP Code used for mailing to the Vendor.

Country

Enter in the Country of the Vendor.

Phone

Enter the Phone Number of the Vendor.

Fax

Enter the Fax Number of the Vendor.

Web Site

Enter in the Web Site Address of the Vendor.

Contact information three Contacts can be entered and tracked:

First Name

Enter in the First Name of the Vendor Contact.

Last Name

Enter in the Last Name of the Vendor Contact.

E-Mail

Enter in the Email Address of the Vendor Contact.

Phone

Enter in the Phone Number and extension of the Vendor Contact.

Fax

Enter in the Fax Number of the Vendor Contact.

Mobile

Enter in the Cellular Phone Number of the Vendor Contact.

Vendor Notes

Enter any other miscellaneous information required for the Vendor.

Employees Tab

This is a **REQUIRED** field. You must have at least one employee name entered here in order to populate all the dropdown Tech boxes and run many of the MOLDTRAX reports.

The Employee form will allow the Managing Company to track information relating to an employee that starts and stops a mold, blocks off cavities or notes defects, or performs corrective action. Their hourly pay rate is also recorded here to track labor costs associated with repairs.

As employees are added, a dynamic Employee list is sorted on the left side of the screen will keep track of all the employees in the database. Once an employee is selected from the list on the left side of the screen, their related contact information will display on the right side of the screen.

This employee information is very important in many of the reports used in MoldTrax. NOTE: Only one employee can be tracked to a specific action. If several employees are involved in a specific action, you can track them by entering their names in associated Notes section following most fields.

The screenshot shows the ToolingDocs software interface with the 'Employees' tab selected. The window title is 'ToolingDocs' and the sub-section is 'Crazy Mold'. On the left, a 'Select Employee' list shows names: Goodwrench, Johnson, Kringle, Mold, Q/A, and Zart. The main area is divided into three sections: 'Employee Name & Address' (First Name: Crazy, Last Name: Mold, Address: 94 Showny Dr., City: Cleveland, State/Prov: OH, Zip/Postal: 39411-93), 'Employee Phone & Hire Info' (Work Phone: 230-122-0001, Home Phone: [empty], Employee Number: CM-10293, Email Address: Sales@Crazy.org, Department: Mold Repair, Office Location: 94 Showny Dr., Job Description: Vendor, Hire Date: [empty], Chargeout Rate: \$67.00), and 'Employee Notes' (a text area with placeholder text: 'List your vendors to track labor hours (Chargeout Rate)').

The fields to complete are:

Employee Name & Address

First Name

Enter in the Employee's First Name.

Last Name

Enter in the Employee's Last Name.

Address

Enter in the Employee's Mailing Address.

City

Enter in the Employee's City.

State/Prov

Enter in the Employee's State.

ZIP/Postal

Enter in the Employee's ZIP Code.

Employee Phone & Hire Info**Work Phone**

Enter in the Employee's Internal Phone Number (if applicable).

Home Phone

Enter in the Employee's Home Phone Number (if applicable).

Employee Number

Enter the Employee's Identification Number (if applicable).

Email Address

Enter in the Employee's Email Address (if applicable).

Department

Enter in the Employee's Department Number (if applicable).

Shift

Enter in the Shift the Employee works.

Office Location

Enter in the Location of the Employee's Office (if applicable).

Hire Date

Enter in the Employee's Hire Date.

Job Description

Enter in the Employee's Job Description.

Hourly Rate

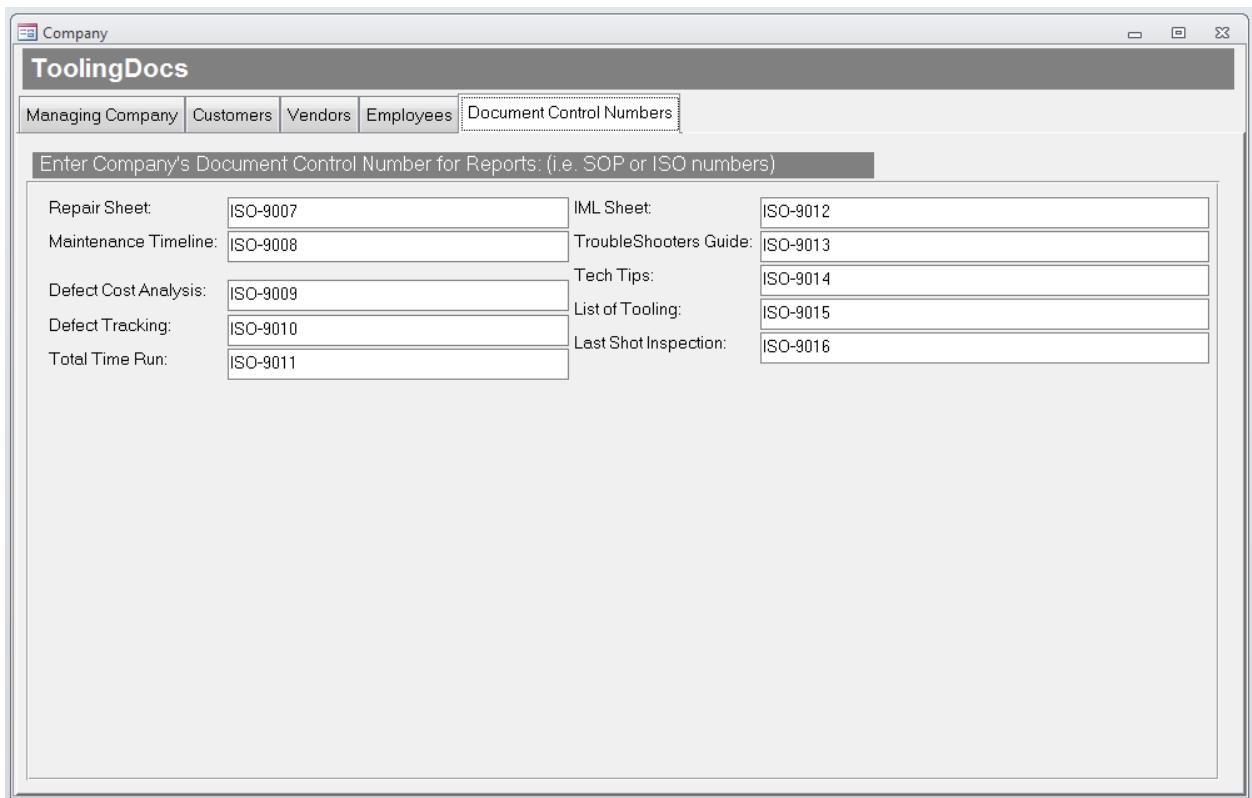
Enter in the Hourly Rate at which the Employee charges out for labor. This rate is required to calculate labor costs for repairs made.

Employee Notes

Enter any other miscellaneous information needed for the Employee.

Document Control Numbers Tab

The Document Control Number form will allow the Managing Company to track information relating to internal documents. These numbers will display in the reports.



The screenshot shows a software window titled 'ToolingDocs' with a 'Company' tab selected. Below the tabs is a search bar: 'Enter Company's Document Control Number for Reports: (i.e. SOP or ISO numbers)'. The main area contains a grid of document control numbers:

Repair Sheet:	ISO-9007	IML Sheet:	ISO-9012
Maintenance Timeline:	ISO-9008	TroubleShooters Guide:	ISO-9013
Defect Cost Analysis:	ISO-9009	Tech Tips:	ISO-9014
Defect Tracking:	ISO-9010	List of Tooling:	ISO-9015
Total Time Run:	ISO-9011	Last Shot Inspection:	ISO-9016

The fields to complete are:

Repair Sheet

Enter the Document Control Number for the Repair Sheet report.

Maintenance Timeline

Enter the Document Control Number for the Maintenance Timeline report.

Defect Cost Analysis

Enter the Document Control Number for the Defect Cost Analysis Report.

Defect Tracking

Enter the Document Control Number for the Defect Tracking report.

In Press Repairs

Enter the Document Control Number for the In Press Repairs report.

Total Time Run

Enter the Document Control Number for the Total Time Run report.

IML Sheet (Injection Mold Layout)

Enter the Document Control Number for the IML (Injection Mold Layout) sheet.

Troubleshooters Guide

Enter the Document Control Number for the Troubleshooters Guide report.

Tech Tips

Enter the Document Control Number for the Tech Tips report.

List of Mold Tooling

Enter the Document Control Number for the List of Tooling report

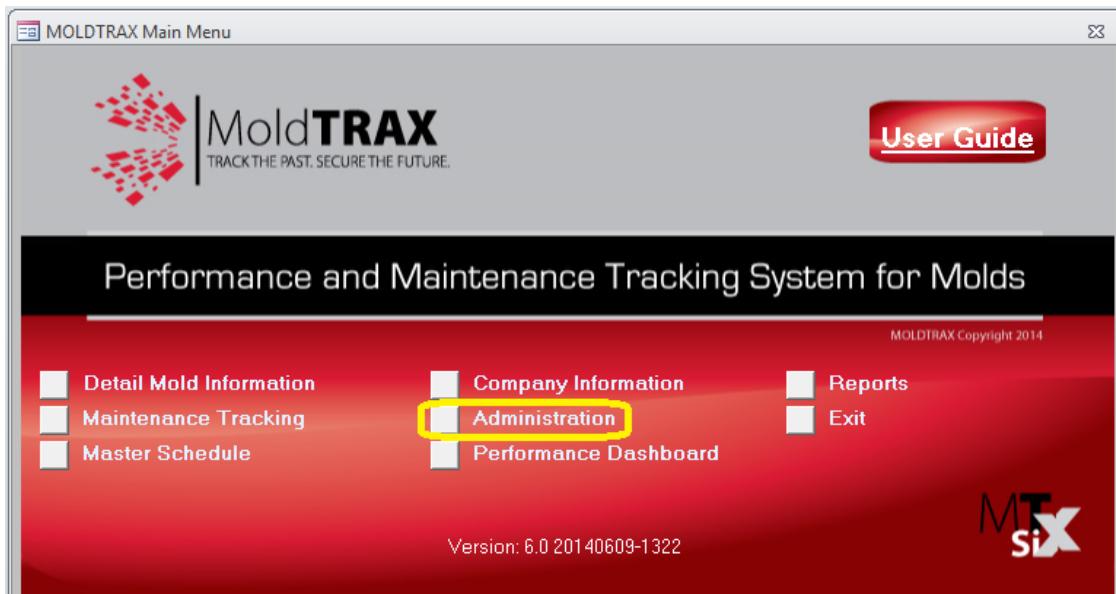
Repair Status (All molds)

Enter the Document Control Number for the Repair Status Report

Last Shot

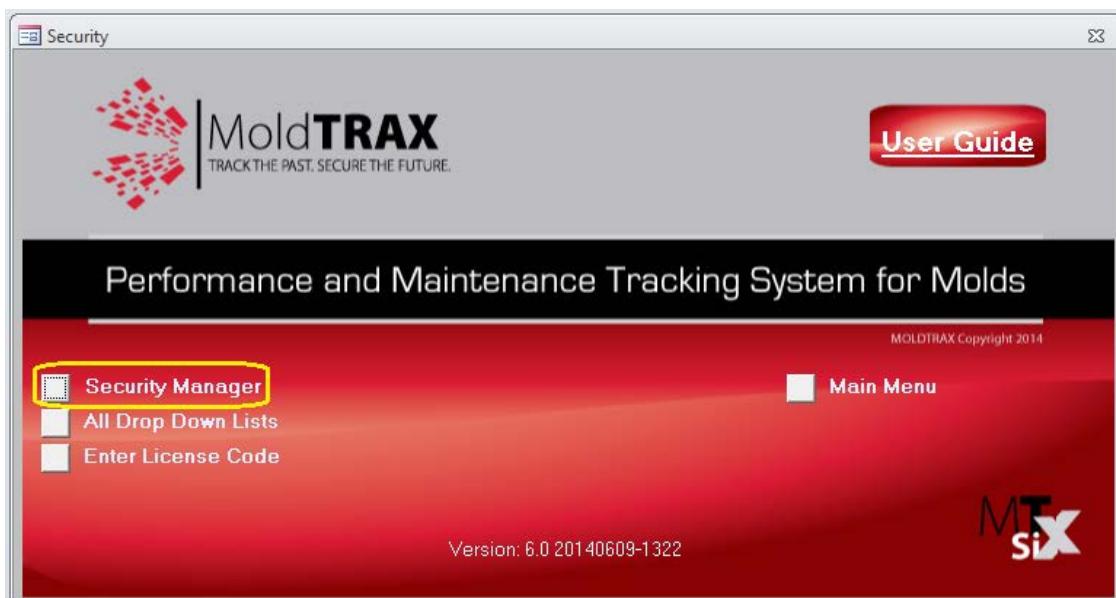
Enter the Document Control Number for the Last Shot sheet.

ADMINISTRATION BUTTON



Other new features of MoldTrax 5 include **Security Manager** and **Drop Down Lists**. This new functionality is customized within the Administration button. With Security you can control who can read, create, edit and delete MoldTrax records and with Drop Down Lists you have the ability to pre-populate all of the user selectable drop down lists used in the Detail Mold Information and Maintenance Tracking sections.

Security Manager Button



With security activated in the MoldTrax database, the Administrator can control who can read, create, edit and delete MoldTrax records.

There are three levels or groups of Security built into MoldTrax:

- **Admins** – Full Administrative access; can read/write/create/delete anything (including users)
- **Editors** – Can read/write/create delete any mold-related record
Cannot create or delete users, cannot delete entire records, and cannot enter any information within the Company Information Section
- **Users** – Read only access, cannot write/create/delete anything

Each user is assigned a *user name* and *password* for accessing the database and must enter this to gain entry to the database.

Creating and Working with Users

The **Users** tab within the MoldTrax Security Manager is where you should create a user id for every user you want to be able to access the database.

About Users

Each user who will be using the application must have an entry in the MoldTrax Security System and be assigned to at least one group. The Users tab stores the following information about each user:

- Logon ID
- Full name
- Password
- List of Groups the user is a member of

The **Login ID** is the set of characters that the user will use to log into the database. Login IDs are not case sensitive and can consist of any number of alphanumeric characters.

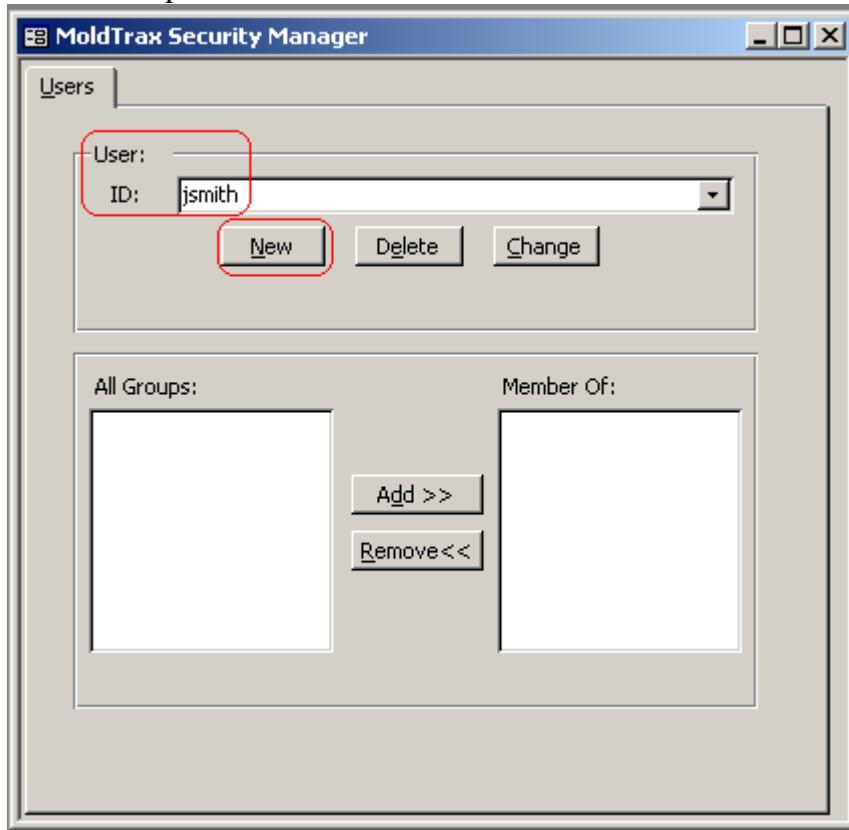
The **Full Name** is displayed when the user is logging in.

The **Password** field is not case sensitive and can consist of any number of alphanumeric characters.

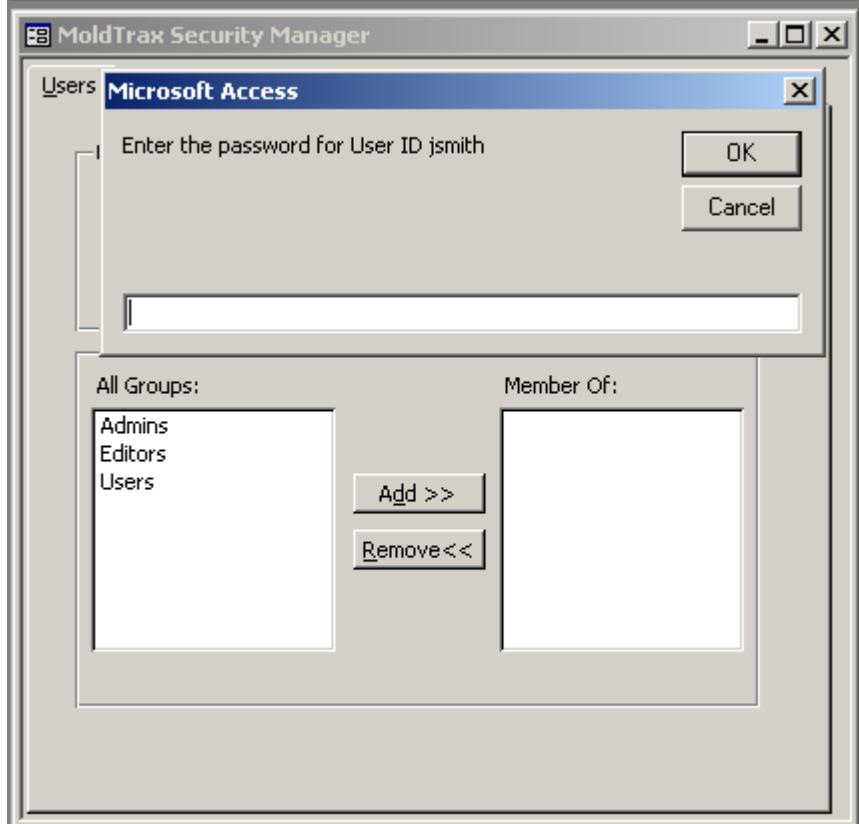
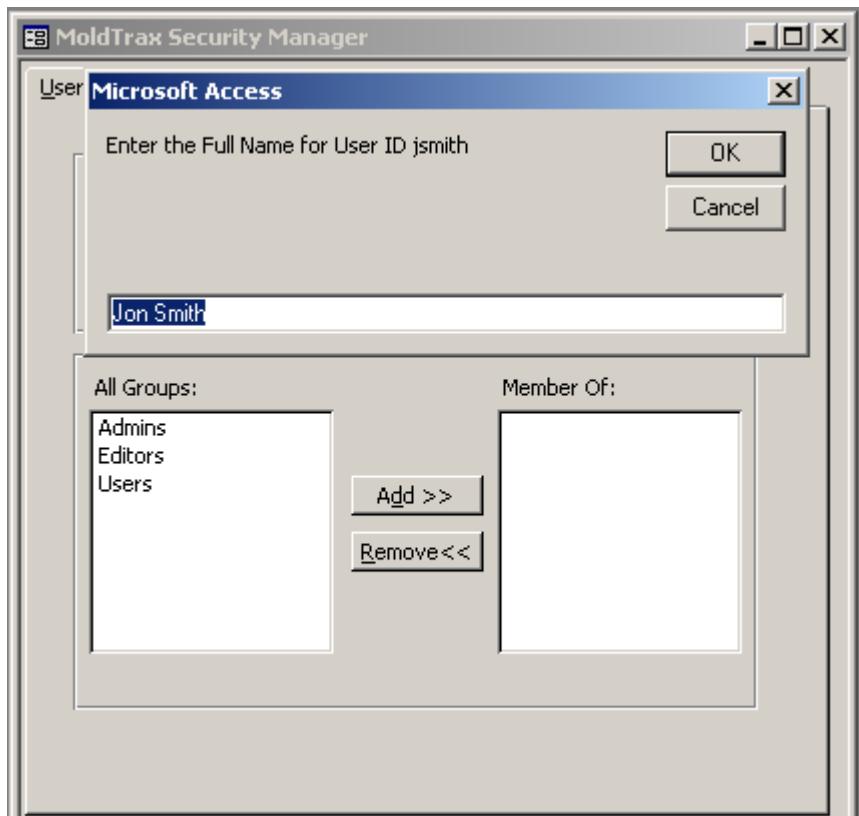
The **List of Groups** the user is a member of will determine what level of access (Admins, Editors, Users) they have to the MoldTrax records.

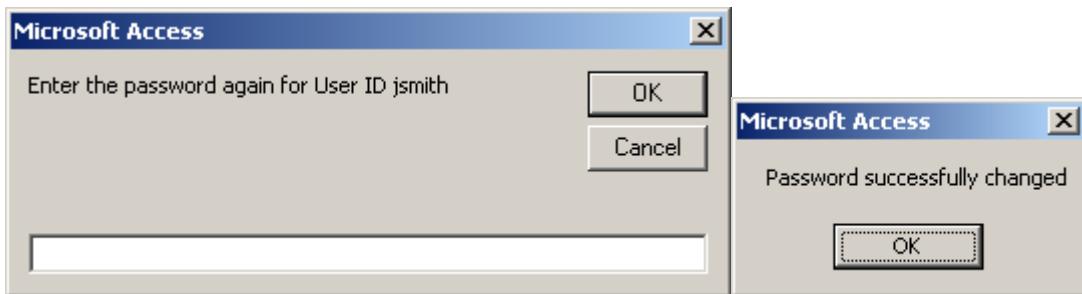
Adding a New User

Each user who will be accessing the Application must be entered into the MoldTrax security system. To enter a new user, first enter the ID of the user in the field labeled ID and then press the **New** button. The user will be added.

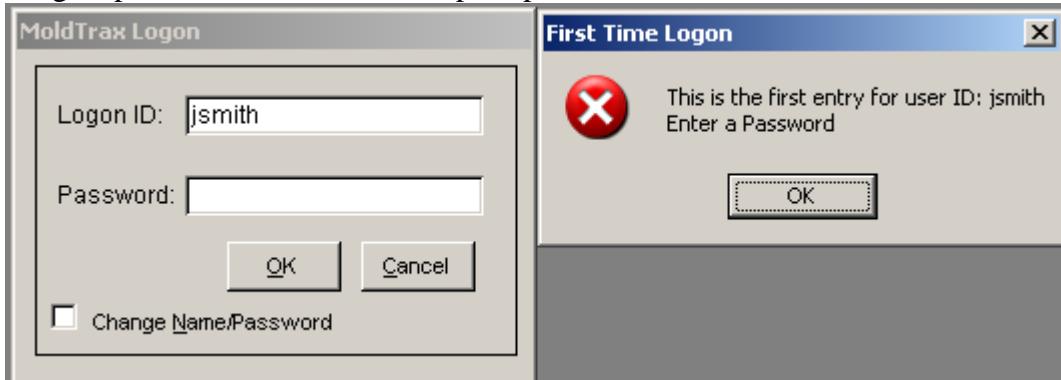


To enter a password or the full name, press the **Change** button. You will be prompted to enter a full name and password for the user. You can leave the password field blank if you want the user to enter their own password the first time the user logs in. If you enter a password, you will have to enter it a second time to verify the entry.



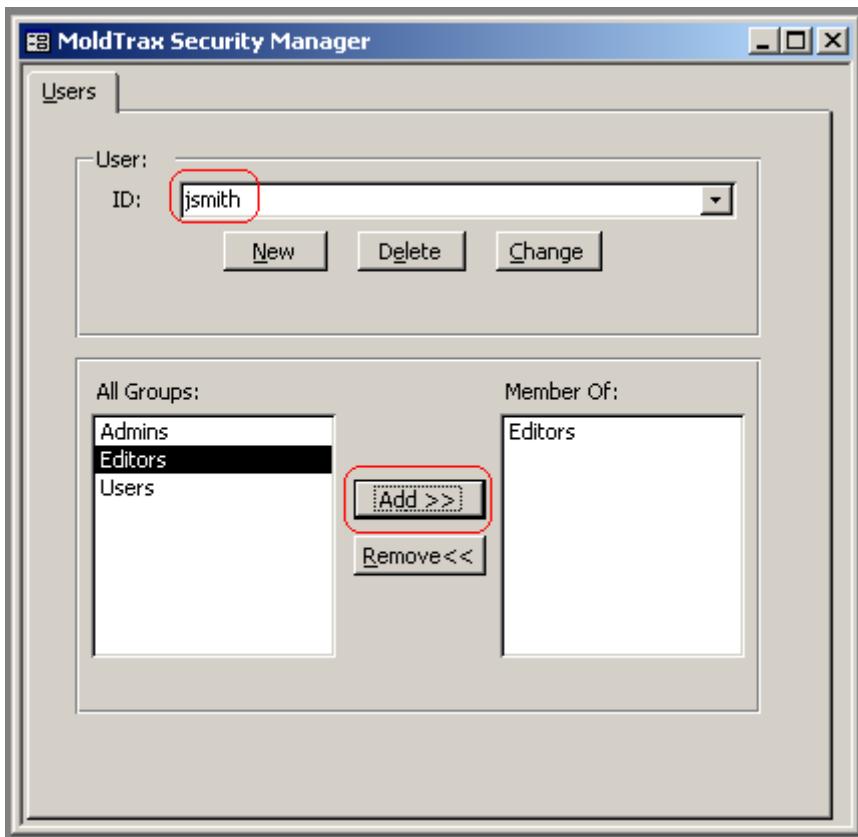


When the new user logs onto MoldTrax for the first time and the Manager did not assign a password, the user will be prompted to create one.



Assigning a User to a Group

Users must be assigned to a group to have permissions. The user must be assigned to **one** group. To assign a group to a user, first select the user id you want to work with from the top of the form. Next, select a group from the list of groups shown on the bottom left portion of the User tab. Then press the **Add** button and the group will appear in the list labeled *Member Of*. When finished, simply click on the “X” in the upper right corner to exit this screen.



Deleting a User

Deleting a user is done by selecting a user ID from the drop-down list on the top of the tab where you select a user ID and pressing the **Delete** button. This will delete the user profile information from the MoldTrax Security Manager. The user will also be removed from any groups the user is a member of.

Changing a User

You can only change a user's full name and password. Once created, the User ID cannot be changed without actually deleting the user. If you need to change an ID, then you will need to create a new one and delete the old one. Pressing the **Change** button with the user id that you want to change selected, you will be prompted for a new full name and a password. These dialog boxes will be filled in with the current full name and password, so you can just press the Enter key to accept the current one and not change it. Or, you can use the current last name and edit it.

Removing a User from a Group

To remove a user from a group, select the user id from the drop down box then select the group in the list labeled *Member Of*. Press the **Remove** button to permanently remove the user from the selected group.

All Drop Down Lists Button



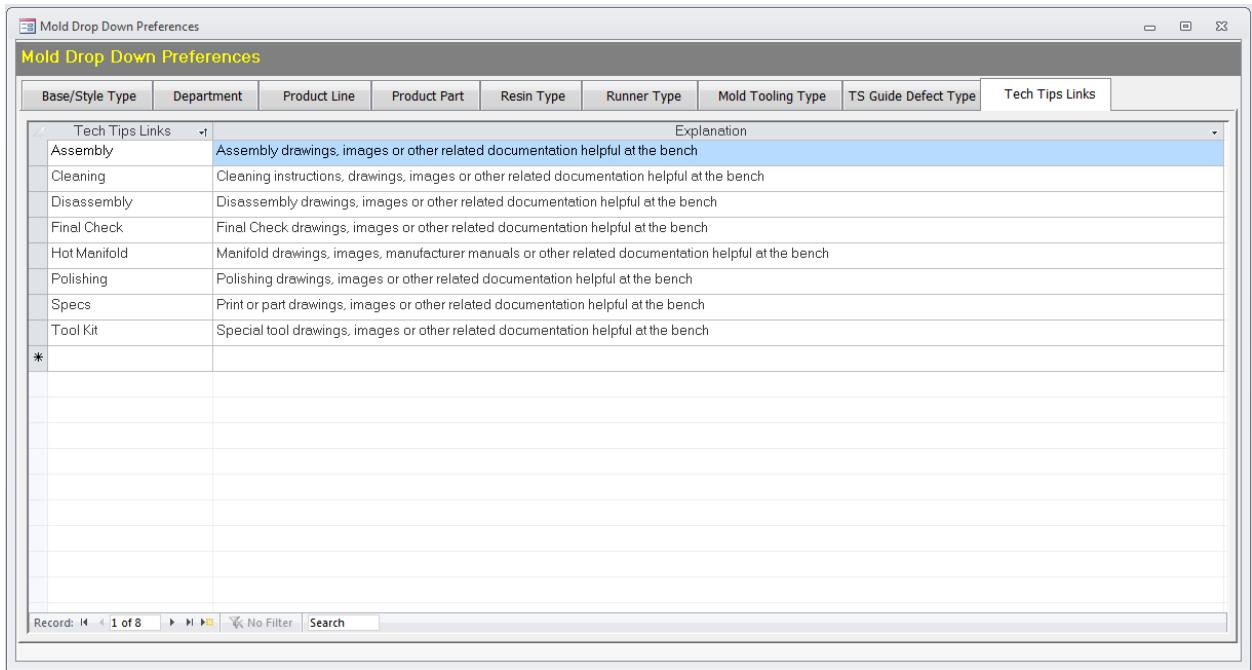
Within the **All Drop Down Lists** button you have the ability to pre-populate all of the user selectable drop down lists used in the Detail Mold Information and Maintenance Tracking sections on the MoldTrax Main Menu.

After clicking on this button, the first choice is to populate the drop down lists contained within the Detail Mold Information section:



Detail Mold Lists Drop Down Button

There are several ‘drop down’ fields on the Detail Mold Information screens that can be pre-populated to insure consistent terms are used throughout the MoldTrax database. Each of these fields is listed on a separate tab on this screen.



The screenshot shows a software window titled "Mold Drop Down Preferences". The window has a tab bar at the top with "Tech Tips Links" selected. Below the tab bar is a table with two columns: "Base/Style Type" and "Explanation". The table contains the following data:

Base/Style Type	Explanation
Assembly	Assembly drawings, images or other related documentation helpful at the bench
Cleaning	Cleaning instructions, drawings, images or other related documentation helpful at the bench
Disassembly	Disassembly drawings, images or other related documentation helpful at the bench
Final Check	Final Check drawings, images or other related documentation helpful at the bench
Hot Manifold	Manifold drawings, images, manufacturer manuals or other related documentation helpful at the bench
Polishing	Polishing drawings, images or other related documentation helpful at the bench
Specs	Print or part drawings, images or other related documentation helpful at the bench
Tool Kit	Special tool drawings, images or other related documentation helpful at the bench
*	

At the bottom of the window, there is a status bar with "Record: 14 < 1 of 8 > >> No Filter Search".

These fields are:

Base/Style Type

Specify specific Mold Base categories. (MUD frame, 2-plate, 3-plate, etc...).

Department

Enter Department names or numbers having mold responsibility.

Product Line

Specify the Product Lines that molds could produce parts for.

Product Part Number

Enter the name of the Part Numbers that could be produced.

Resin Type

Enter Resin Types used in your molds

Runner Type

Specify Runner Types or Configurations of your molds

Mold Tooling Type

Specify the Tooling Types most commonly used or separating tooling into categories for more complete tracking and analysis. If you want to designate a specific corrective action to a repair that does not require replacing tooling, select “Procedure”. This helps to clarify reports used later on.

TS Guide Defect Type

Specify the most commonly used Troubleshooters Guide Defect Types. Several MoldTrax descriptions and explanations are already entered for you.

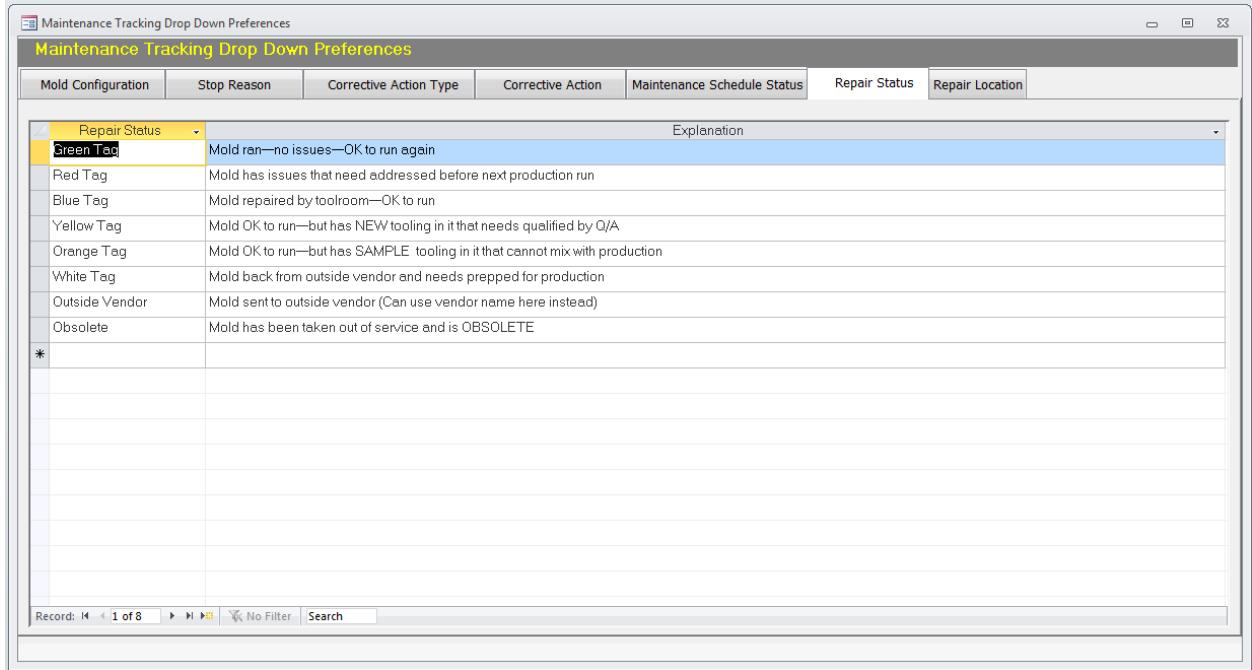
Tech Tips Links

Enter the Tech Tip Category, Name and Link to an external file or image. In some cases, the tabs within the Tech Tips section might not be enough to contain all the

details for a particular mold. The Links section can reference additional documentation or SOP's to be utilized when Assembling, Cleaning or Polishing.

Maintenance Tracking Lists Drop Down Button

There are several 'drop down' fields on the Mold Maintenance screens that can be pre-populated to insure consistent terms are used throughout the MoldTrax database. Each of these fields is listed on a separate tab on this screen.



The screenshot shows a software window titled 'Maintenance Tracking Drop Down Preferences'. The window has a tab bar at the top with 'Mold Configuration', 'Stop Reason', 'Corrective Action Type', 'Corrective Action', 'Maintenance Schedule Status', 'Repair Status' (which is selected), and 'Repair Location'. The main area is a table with two columns: 'Repair Status' and 'Explanation'. The 'Repair Status' column contains color-coded tags: Green Tag, Red Tag, Blue Tag, Yellow Tag, Orange Tag, White Tag, Outside Vendor, and Obsolete. The 'Explanation' column provides a brief description for each tag. At the bottom of the table, there is a note starting with an asterisk (*). The bottom of the window includes a toolbar with buttons for 'Record: 14 < 1 of 8 > >> No Filter Search'.

Repair Status	Explanation
Green Tag	Mold ran—no issues—OK to run again
Red Tag	Mold has issues that need addressed before next production run
Blue Tag	Mold repaired by toolroom—OK to run
Yellow Tag	Mold OK to run—but has NEW tooling in it that needs qualified by Q/A
Orange Tag	Mold OK to run—but has SAMPLE tooling in it that cannot mix with production
White Tag	Mold back from outside vendor and needs prepped for production
Outside Vendor	Mold sent to outside vendor (Can use vendor name here instead)
Obsolete	Mold has been taken out of service and is OBSOLETE
*	

Mold Configuration

Specify the types of configuration that your molds could be in. This allows you to track different tooling configurations or part numbers back to a single mold frame/base number. If there is no specific configuration that you want to track, or if the mold only runs one configuration, then use a generic term such as "Standard" or "Typical".

Stop Reason

List common reasons the mold was stopped from producing parts. Choose short, clear terms such as C/R & Rack meaning "Clean and Repair and Rack" or "Internal Water Leak". Several common terms are listed for you. For easier sorting when analyzing the information or creating reports, be sure to prefix any Unscheduled Stop Reason with an X- which will keep all unscheduled mold stops as a group.

Corrective Action Type

Specify types of Corrective Action that could be taken on your molds. This information is required in order to generate an In-Press Repairs report.

Corrective Action

Enter brief descriptions or terms of potential actions that could be performed to resolve a Defect or Problem. Several common terms are listed here. You may choose one of these or enter you own.

Maintenance Schedule Status

Specify descriptions or terms of a status. Several common terms are listed here. You may choose one of these or enter you own Select one of the pre-determined Status selections from the drop down list provided.

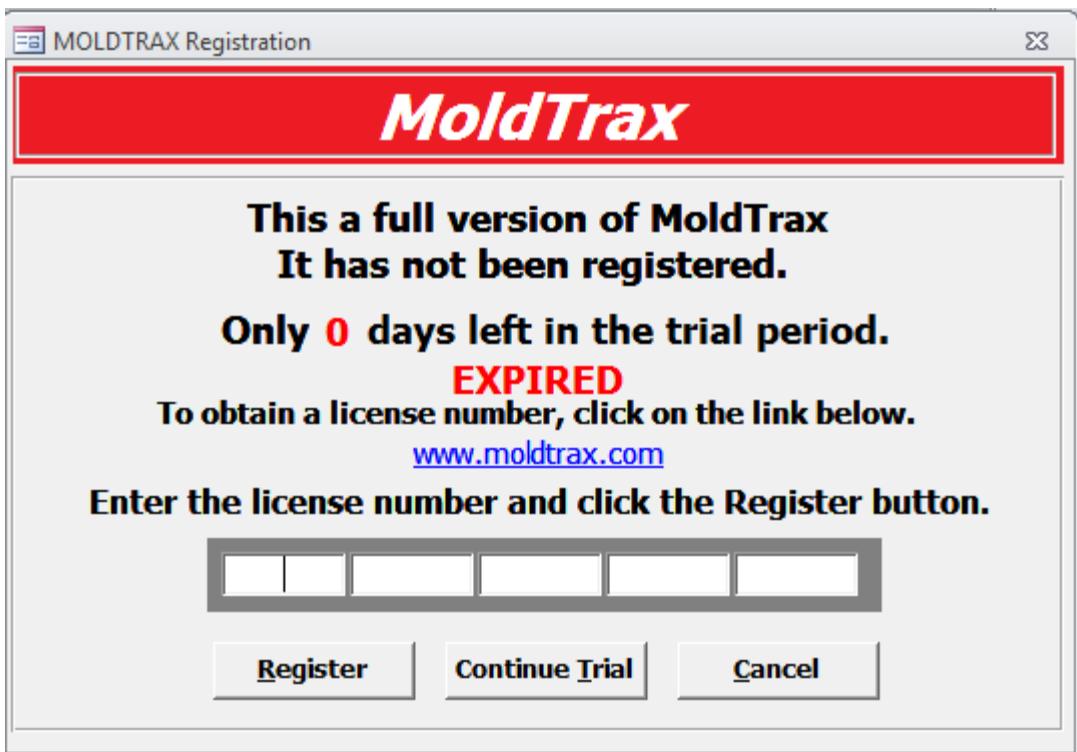
Repair Status

Enter in the Repair Status' such as Red, Green, Yellow Tag or you can enter the name of an outside Vendor where the mold has been shipped for repairs or to run.

Repair Location

Enter in the Repair Location of where the mold has been shipped for repairs or to run.

Enter License Code



Using Reference Reports To Create Mold Manuals

Creating a manual in MOLDTRAX is as simple as generating printouts of information accumulated through daily use of the system, and putting these into a standard 3-ring binder, with sleeves in the front and back cover. Maintenance Manuals should consist of IML Sheets stapled to the relevant Repair Sheets and stored in the front sleeve of the binder, printouts of the Troubleshooter's Guide, Tech Tips and a Last Shot Inspection Sheet in the center of the binder. It is also handy to keep any miscellaneous drawings or notes about the mold in the back sleeve. Manuals are extremely useful to various personnel such as repair and process technicians on the floor who do not have access to a computer and who need the information to effectively troubleshoot and repair. Quality Control and Production Personnel also need repair information to verify defect resolution or to regulate schedules for production runs. And if a mold is sent to another plant or company for continued production or refurbishing, the manual can travel with the mold as a ready reference to past performance and defect resolution.

Using Digital Images in MOLDTRAX

MOLDTRAX stores all digital images and drawings within the database for quick recovery and viewing. Because MOLDTRAX stores the images and drawings, it is important that the digital images or drawings do not exceed a recommended file size of 500K. It is possible to paste digital images of a much higher file size (pixel rating) into MOLDTRAX, but doing so, over a period of time could slow the application considerably.

MoldTrax Index

A

- Action Item..... 36
- Action Review Tab..... 34
- Assembly 17, 18

B

- Block off Table..... 49

C

- Cavity Position Number 4, 12, 29
- Cavity Tooling..... 11, 12
- Cleaning 15, 17, 18, 53
- Comments..... 9, 27, 32
- Company Name and Address 70
- Company Notes 71
- Complete Maintenance Tracking All
Molds..... 63
- Contact information..... 74
- Contact Information 70, 72
- Corrective Action 15, 16, 27, 30, 31, 32,
33, 34, 38, 39, 49, 87
- Corrective Action Analysis Report ... 65
- Corrective Action Tab 27, 30
- Costs Per Run Time Hour 64
- Customer Name & Address..... 72
- Customers Tab..... 71
- Cycles 7, 35, 36

D

- Date Repair Completed 26
- Defect Cost Analysis 27, 33, 45, 77
- Defect Items 21
- Defect Map 26
- Defect Map Image 26
- Defect Position Analysis 61
- Defect Tracking 46, 77
- Defects.... 15, 16, 21, 28, 29, 30, 33, 34,
38, 46
- Defects Block and Quality 60
- Defects By Mold Total Count Report 60
- Defects By Mold, Block and Quality 61
- Defects by Technician..... 61
- Defects by Technician Block and
Quality 62
- Defects Repaired 33
- Defects Total Count Report..... 60

- Digital Images 38, 89
- Disassembly 17, 18, 53
- Document Control Numbers Tab 77

E

- Employee Name & Address..... 75
- Employee Phone & Hire Info..... 76
- Employees tab 45
- Employees Tab..... 75

F

- Fast-Start 4
- FASTTRAX REPORTS 57
- Final Check 17, 18, 53

G

- Getting Started 16

I

- Image 15, 16, 18, 38, 55
- IML Map 4, 14
- IML Sheet .. 4, 5, 14, 22, 27, 29, 35, 49,
77, 89

- In Press Repairs..... 77
- In Press Servicing Frequency..... 35
- Injection Mold Layout..... 4, 14, 43, 77

L

- Last Shot 18, 21, 55, 78, 89
- Layout Tab 12
- List of Mold Tooling 54, 78
- Lists of Common Corrective Actions 31
- Lists of Common Scheduled and
Unscheduled Stop Reasons 25

M

- Maintenance Instructions 26, 27
- Maintenance Schedule Tab 35
- Maintenance Timeline..... 27, 44, 77
- Maintenance Tracking Form 5
- Managing Company Tab..... 69
- Microsoft Access 2000..... 3
- Mold Config 24, 87
- Mold List 68
- Mold Maintenance Manual 52, 89
- Mold Stop Reason Costs 63
- Mold Stop Reason Count 62

Mold tab	4
Mold Tooling Costs.....	64
N	
Notes Tab	20
O	
Out of Press PM Frequency	36
P	
Polishing.....	17, 18, 19, 53, 87
Press	21, 23, 30, 35, 43, 49
Press Utilization Report	67
Preventative Action	16, 38
Probable Cause.....	15, 16, 38, 52
Problem Explanation	16, 38
Procedure.....	10, 11, 39, 86
Process Technician Start Count.....	66
Process Technician Start Count	
Monthly	67
Production Cycles	27
Pull Items.....	21
R	
Reference Reports	48, 57
Repair Hours	27, 32
Repair Sheet	5, 30, 32, 43, 77, 89
Repair Status	35, 78, 88
Reports	4, 23, 27, 41, 48, 49
S	
Service Items	21
T	
Tech Tips.....	17, 53, 55, 78, 89
Technician Repair Count.....	65
Technician Repair Count Monthly....	66
Technician Repair Mold Count.....	66
Tool Kit	17, 18, 53
Total Time Run	47, 77
TroubleShooters Guide ...	15, 16, 37, 52
Type..	4, 7, 8, 10, 11, 15, 16, 24, 27, 30, 37, 39, 49, 86, 87
V	
Vendor Notes	74
Vendors Tab	73
W	
Web Information	71
Work Order	27