

The OnTrack system provides modules to schedule production, monitor current production, review historical production, enter downtime reasons, and generate reports.

#### System Components:

- OnTrack Host with SQL Database and CS2 Data accumulator
- eTerm – Plant floor equipment monitor

#### OnTrack Host

The Host application provides a means of Scheduling production, and giving users a Web interface as a way to monitor current production and to generate reports.

The Web interface can be accessed by users, and protected through a Login security. The login will be managed on the Host server and will use SSL encryption.

#### CS2 -Data accumulator

The CS2 is the connection between the factory floor and the Host computer. The CS2 acts a data accumulator that collects information from each of the plant floor equipment monitors or *eTerms*. The collected data is time stamped as it is received which allows it to recover accurately should there ever be a Host outage. In smaller installations the CS2 application will reside on the same server as the OnTrack Host application

#### eTerm

The eTerm (short for Ethernet terminal) collects count information from up to (3) production equipment by monitoring the dry contacts of a relay.

## Screens and Reports

Included Screens, Reports and Charts include:

### Monitoring

- Plant Monitor
  - Plant Hourly
  - Line Hourly
  - Downtime
  - History
  - Time in State Chart
  - Production Drill down
  - Production Timeline
- with Mouse over details

### Data Entry

- Changeover
- Downtime
- Hit to Hit
- Count Edit
- Edit Scrap/Reject List

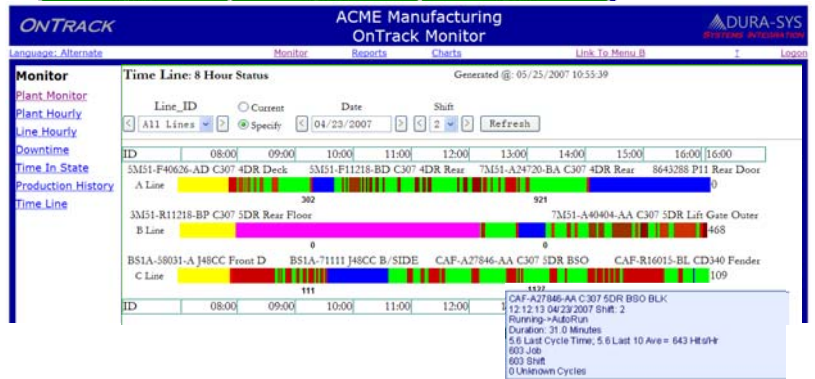
### Reporting

- Plant Hourly
- Line Hourly
- Yield Report
- Scrap Report
- Reject Report
- OEE
- Downtime
- Hit to Hit

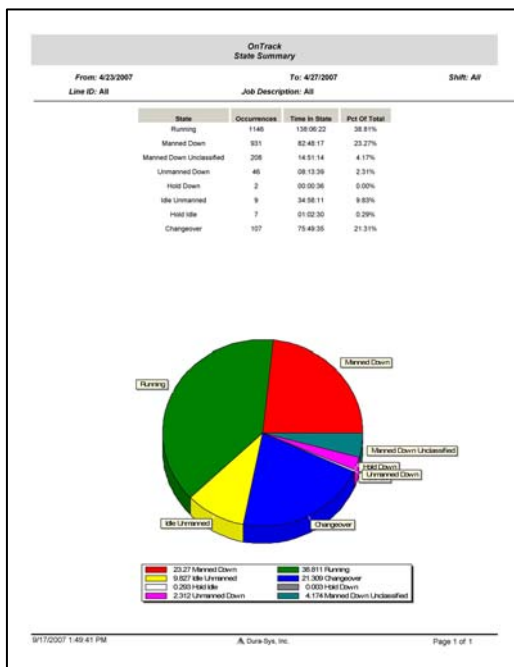
### Charting

- State Summary
- Top Down Reasons
- Yield By Date
- Yield By Line
- OEE Trend
- Scrap Reasons
- Reject Reasons
- Waste By Line

Reports and Charts are viewable on screen and can be saved or printed from a PDF

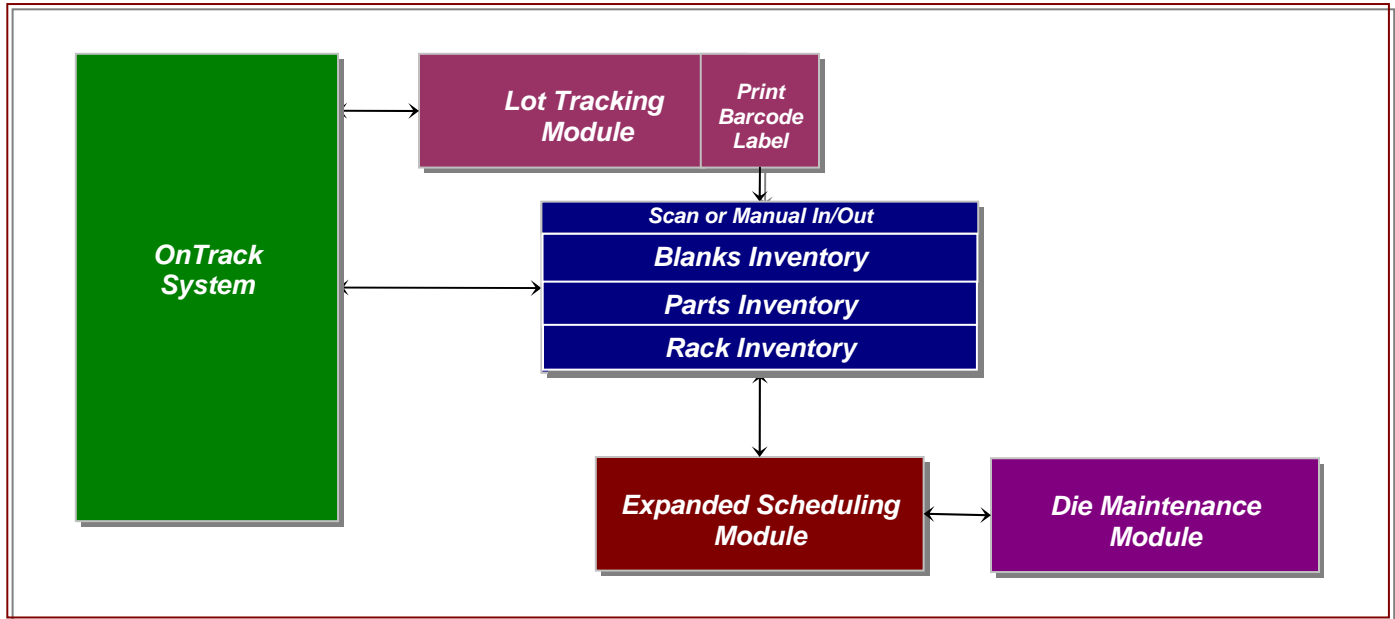


OnTrack OEE Report (Overall Equipment Effectiveness)										
Production From: 4/23/2007		Production To: 4/23/2007		Shift: All						
<b>C307 4DR Decklid Inner</b>										
Line A Line	Job: C307 4DR Decklid Inner	SW1-F4026-AD	Job Regn: 84232007 84.36	Job End: 84232007 89.21						
Availability:	62.3%	Performance Efficiency:	87.2%	Quality Rate:	100.0%	OEE:	54.3%			
Total (Hrs) Available	9.351	Total Cycles	321	Total Parts Plan	321	Total Defects	0			
<b>C307 4DR Rear door inner</b>										
Line A Line	Job: Summary C307 4DR Rear door inner	SW1-A34720-BA / SW1-A34721-BA	Job Regn: 84232007 13.47	Job End: 84232007 16.00						
Availability:	6.6%	Performance Efficiency:	0.0%	Quality Rate:	0.0%	OEE:	0.0%			
Total (Hrs) Available	2.214	Total Cycles	0	Total Parts Plan	0	Total Defects	0			
<b>C307 4DR Rear door inner</b>										
Line A Line	Job: C307 4DR Rear door inner	SW1-A34720-BA / SW1-A34721-BA	Job Regn: 84232007 17.48	Job End: 84232007 22.17						
Availability:	60.7%	Performance Efficiency:	98.0%	Quality Rate:	100.0%	OEE:	59.5%			
Total (Hrs) Available	6.329	Total Cycles	1223	Total Parts Plan	2446	Total Defects	0			
<b>Summary C307 4DR Rear door inner</b>										
Line A Line	Job: Summary C307 4DR Rear door inner	SW1-A34720-BA / SW1-A34721-BA	Job Regn:	Job End:						
Availability:	60.7%	Performance Efficiency:	98.0%	Quality Rate:	100.0%	OEE:	59.5%			
Total (Hrs) Available	8.543	Total Cycles	1223	Total Parts Plan	2446	Total Defects	0			
<b>C307 4DR Rear Floor</b>										
Line A Line	Job: C307 4DR Rear Floor	SW1-F11218-BD	Job Regn: 84232007 89.21	Job End: 84232007 13.47						
Availability:	70.2%	Performance Efficiency:	95.9%	Quality Rate:	100.0%	OEE:	67.2%			
Total (Hrs) Available	4.435	Total Cycles	1505	Total Parts Plan	1505	Total Defects	0			



Line	Total	Unknown	Reject	Scrap	Yield	Scrap Rate	Reject Rate	Yield %	Scrap %	Reject %
A Line	970	0	0	0	970	0.00%	0.00%	100.00%	0.00%	0.00%
B Line	1640	0	0	0	1640	0.00%	0.00%	100.00%	0.00%	0.00%
C Line	6991	0	0	0	6991	0.00%	0.00%	100.00%	0.00%	0.00%

**Dura-Sys, Inc.**  
 25313 Dequindre  
 Madison Heights, MI 48071  
 (248) 543-2383  
 dura-sys@dura-sys.com



The OnTrack system provides modules to schedule production, monitor current production, review historical production, enter downtime reasons, and generate reports.

Add-on System Components:

- The OnTrack modules utilize the same PC platform as the Base OnTrack application

#### Lot Tracking Module

This Module interacts with the OnTrack system to retrieve Current Part numbers. The end of line operator has a Print Request button to produce a Barcode tag for the rack of parts that they just filled. The Lot tracking module will route the print request to a barcode printer located near the racking station. Each button push will print a barcode tag that has the Part Number, Description, Standard Rack Quantity, Date, Time, and a Unique Serial Number that will be tracked and used to identify it to the Inventory module.

Ad-hoc tags can be printed from a plant floor PC using a web browser. This will allow users to modify the Quantity printed on the tag or give them the ability to print a tag for a Part Number that is not currently running/scheduled.

#### Inventory Module

This module will allow the active scanning of the Barcode tags affixed to parts racks as they enter and exit the warehouse. This module will also provide a means of tracking material in the form of Blanks.

A Web form that can be accessed from a PC's browser will be used to enter parts into and out of the inventory. This form will be auto completed with the use a Barcode scanner. If the scanner should become inoperative the Web form can be completed manually. This will also provide the way to manually enter "Blanks" into the inventory system. Additionally this Web form can allow a tag to be adjusted, reprinted, or allow for the printing of a new barcode tag.

The Inventory module tracks parts (Blanks and Production) reporting any balances on hand (BOH).

The Production parts are subtracted from the Inventory when an exit scan from the warehouse is completed.

The quantity of Blanks is reduced as OnTrack records their use in production.

**Expanded Scheduling Module**

The Scheduling Module is a tool to Schedule production in both extended and daily plans according to inventory and plant requirements. The module will also show die maintenance status and maintain communication between the Tool Room and Production personnel.

The status of the Blanks, Racks, Dies, along with Inventory requirements can be viewed and analyzed using the different screens and reports that are available to facilitate the decision making process.

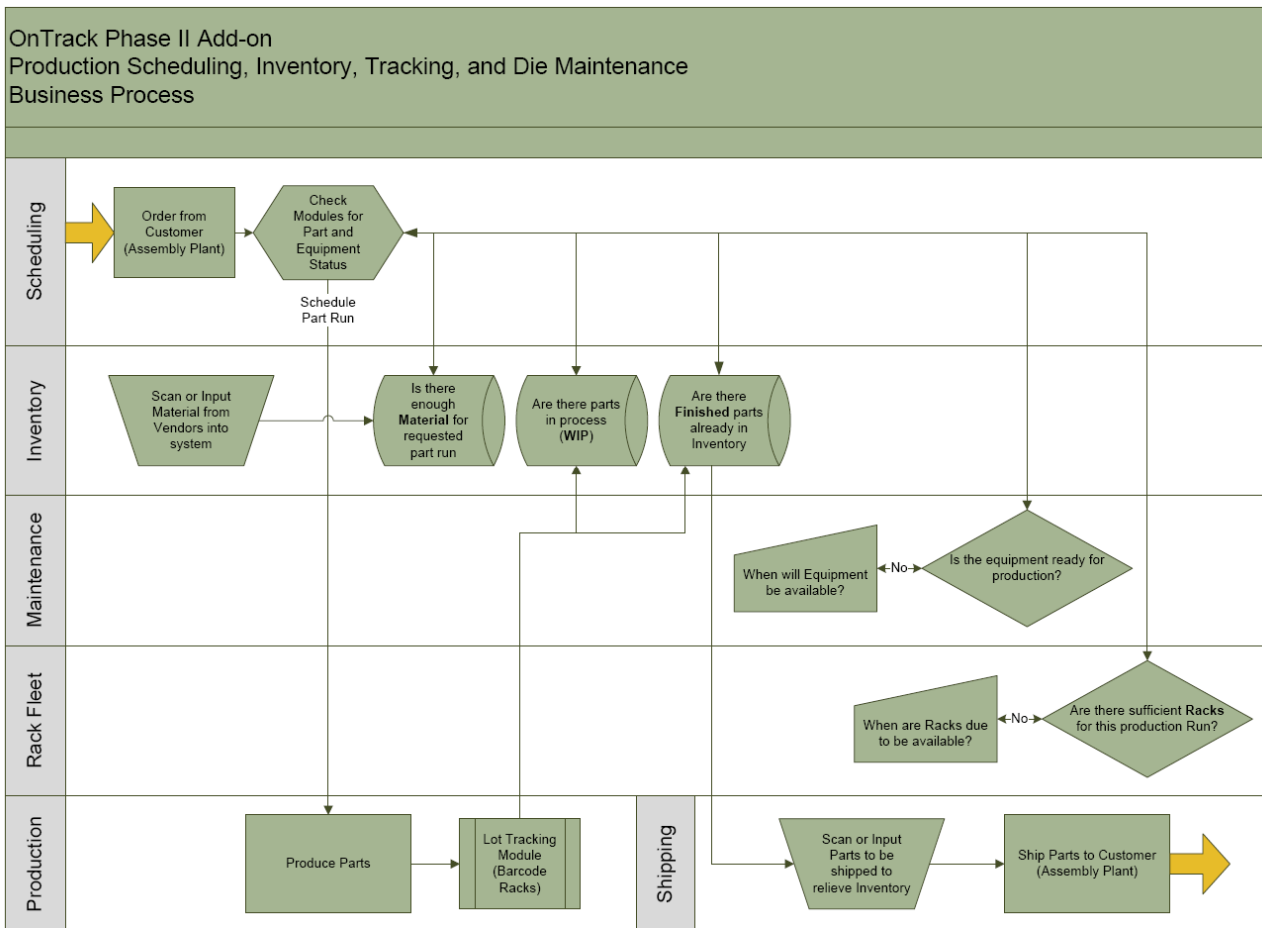
- Look at inventory BOH: blanks and stamped parts
- Manual input of build schedule for next 14 days
- Flag when less than 2 days supply
- Build plan will be generated based on:
  - Rack fleet size
  - Blanks on Hand
  - Die availability
- Forecast for timing and quantity of when blanks will be delivered
- Recommend die set schedule based on BOH and build schedule

**Die Maintenance Module**

Each die will have current status (waiting repair or available), repair history, washing history, and production history. The Current Status will include whether the die is available. If it is not, then also included will be the problem description, date and time entered into the system, estimated repair time, and the repair priority/urgency.

This information will then be used to generate Work Orders and provide reporting of:

- Daily report to T&D leader of work to do  
(List of dies to be repaired sorted by priority/urgency)
- Ability to show work done to a die so far
- History of selected die will include repairs, washing, and summarized production.



**Business Process Flow Diagram**

-Additional information and demonstration can be obtained at [www.dura-sys.com](http://www.dura-sys.com)

**Dura-Sys, Inc.**  
25313 Dequindre  
Madison Heights, MI 48071  
(248) 543-2383  
dura-sys@dura-sys.com