

Tips for Using Downtime Codes & Gaining Buy-in

EXPERT INSIGHTS

by Paul Hogendoorn Founder of FreePoint Technologies

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INTRODUCTION

As the founder of FreePoint Technologies, I have gathered various insights into the challenges manufacturers face while navigating the world of machine monitoring.

The following notes are some helpful tips, reporting examples, and best practices learned from other ShiftWorx users:

- Using Multiple Views on a Single Display
- Reading Notes For Downtime Code Entries
- Using Colors in Reason Code Reports
- Encouraging Entry of Reason Codes



Paul Hogendoorn Founder & Chair FreePoint Technologies

| | 8 min 2 % | SPINDLE ON VALUE ADDED TIMER YESTERDAY |
|------------------------------------|---|--|
| CNC-1 | | Apr 25, 2019 |
| 1 pm 2 pm 3 pm 4 pm 5 pm 6 pm 7 pm | т вам эам тоам тгам тгри три гри зри ари | зрм ерм 7рм врм торм 11рм |
| | | |
| Setup | No Machine Tear | Setup Maint |
| | 37.09% Downtime Explained | |
| | | |
| | | X |
| | 0 197 min | 39 % 1003 min |
| CNC 2 | | Apr 25, 2019 |
| 100 24M 34M 44M 54M 64M 74M | 1 8.4M 9.4M 10.4M 11.4M 12.0M 1.0M 2.0M 3.0M 4.0M | 5 PM 6 PM 7 PW 8 PM 9 PM 10 PM 11 PM |
| | | |
| | | |
| Sotup 10 | Machina No. Mai Mai Mai 38.96% Downtime Explained | No Toar Se To |
| | | |
| | | |
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| | | |

Multiple Views on a Single Display

To be able to rapidly switch from one view to another, many customers choose to open multiple instances of ShiftWorx - with WatchLive set up to show a group of machines in the area of interest, and Narrative showing specific machines of interest.

The example below shows that 2 instances of ShiftWorx are running (see browser tabs circled on the top left), with the WatchLive instance in view. This is the view that would be typically on the floor for everyone in that area to see.



Narrative View

In the WatchLive View screen shot above, only 2 of the 5 machines are active this particular day. If a supervisor or manager wants to get a quick view of downtime reasons for these two machines, it can be achieved by clicking on the second ShiftWorx instance on the browser bar. In the Narrative View, the second instance of ShiftWorx is set to the Narrative module showing activity of machines 20 and 24.

Having 2 instances running eliminates the need to go back to Dashboard to change between the WatchLive view and the Narrative view.

Reading Downtime Code Entry Notes

Tip #2

On the screen to the right (Narrative), the small "notes" icon (circled in red) beside the machine name is amber, indicating at least one downtime period has a note added to it by the operator or maintenance person. Clicking on the "notes" icon will open up a window that displays all the notes added recently, indicating the time and date the note was added.

Paying attention to these notes by speaking to the operator or maintenance person and mentioning that you've read it is important to do, even if you cannot resolve the issue at that time. If operators know the notes are

read, they will continue to enter them. If they are not being read, they will likely stop.

| View Notes | × |
|--|---|
| Septmeber 06, 2019, 11:23:00 AM | |
| 1st die case split. Couldn't get it out of machine. | |
| Septmeber 06, 2019, 11:24:18 AM | |
| 1st die inner insert was too long, re-work | |
| Septmeber 06, 2019, 02:56:03 PM | |
| While down for weld, ET put pressure gauge on coolant system | |
| Septmeber 06, 2019, 06:28:57 PM | |
| Welding wire | |



Narrative

Close

Using our "Narrative" module, Operators are engaged in the data collection process by empirically identifying all the non-value adding periods (downtime causes), giving management the information they need to make better decisions.

Using Colors in Reason Code Reports

Downtime reason codes can be grouped into categories, and each category can have its own color. This is very useful for making key information evident at a glance.

For instance, if all anticipated reasons for being down were amber (scheduled maintenance, for instance), all production related reasons were green (set ups, for instance), all management related reasons were grey (no work or no operator scheduled, for instance), and all unexpected reasons were red (machine breakdown, no material, for instance), a quick glance at the Reason Code Report would draw the viewer to the appropriate conclusion quickly.

Since the results are shown in pareto format, seeing grey, green and amber columns on the left indicate everything is going according to plan. Seeing red columns closer to the left side however, indicate that something unexpected is happening and needs attention. In the example below, there are 4 small red columns for specific machine failures, but they are all far to the right. (They do require attention, but it is obviously minor).



Encouraging The Use of Reason Codes

To encourage Operators to enter reason codes, the Reason Code Report includes a report that shows what percentage of downtime periods have been identified.

Five 'best practices' we have observed to improve reason code usage (and overall engagement) include:

1) Posting the pareto chart in a highly visible place weekly

2) Promptly comment on or express thanks for any note that was added to the downtime period

3) Draw attention to every improvement that the company may have made as a result of the reason code data and operator input

4) Post the usage report summary (percentage of downtime entered) in a highly visible place

5) Acknowledging or rewarding people or groups with high reporting percentages

| ¢ | \rightarrow C | anar.getsh | iftworx.com/ | #/reasoncoder | report | |
|---|-----------------|--------------------|--------------------|--------------------|--------------------|----------------|
| | | Sun May 5, 2019 | Mon May 6, 2019 | Tue May 7, 2019 | Wed May 8, 2019 | Thu May 201 |
| | CNC | 1 70.56% | 98.25% | 100.00% | 54.20% | 54.209 |
| | CNC | 2 55.24% | 54.20% | 100.00% | 100.00% | 100.009 |
| | CNC | 3 54.20% | 100.00% | 100.00% | 88.54% | 98.25 |
| | CNC | 4 50.00% | 70.56% | 98.25% | 100.00% | 89.22 |
| | CNC | 5 53.23% | 96.66% | 100.00% | 100.00% | 100.00 |
| | CNC | 6 98.25% | 100.00% | 100.00% | 100.00% | 100.00 |
| | CNC | 7 99.00% | 54.20% | 100.00% | 96.66% | 53.23 |
| | CNC | 8 100.00% | 100.00% | 100.00% | 100.00% | 98.25 |
| | CNC | 9 96.66% | 100.00% | 54.20% | 100.00% | 70.569 |
| | CNC | 10 53.23% | 98.25% | 70.56% | 73.10% | 100.009 |
| | CNC | 11 100.00% | 96.66% | 96.66% | 89.22% | 96.669 |
| | CNC | 12 99.00% | 100.00% | 99.00% | 54.20% | 100.00 |

The image above indicates strong buy-in by the Operators.

Outcomes of Using Reason Codes

Tip #4 Contd.

One customer bought brand new tool-boxes for every station because the number one unexpected downtime reason the previous month was "looking for tools". Another customer created a revised crane priority procedure when they saw "waiting for crane" had a major effect on their bottleneck operations.

Another customer rewarded their top reporting operators and best suggestions received every month with a \$35 coffee card.

The key is to put the information you collect from your operators and maintenance people into action quickly, and to let everyone know that you did, and why you did; *because their input matters*.

Interested in an IIoT Solution?

Reach out to us today to speak with an Account Manager.



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