

Sight Machine Shift Handoff Agent

Generates shift reports in seconds using natural language prompts and agents

Shift handoff reporting, an essential part of daily shift change meetings, is a critical but time-intensive process that requires manual data collection from whiteboards and multiple systems. Traditional reports take at least 5 minutes per machine, which translates to a significant amount of time spent on the line for each shift and are typically stored in Excel or Word files with limited reuse.

Sight Machine's Shift Handoff Agent automates this process through a natural language interface and integrated into Microsoft's M365 Copilot. Operators use simple prompts to generate complete shift reports in seconds instead of manually gathering scattered data.

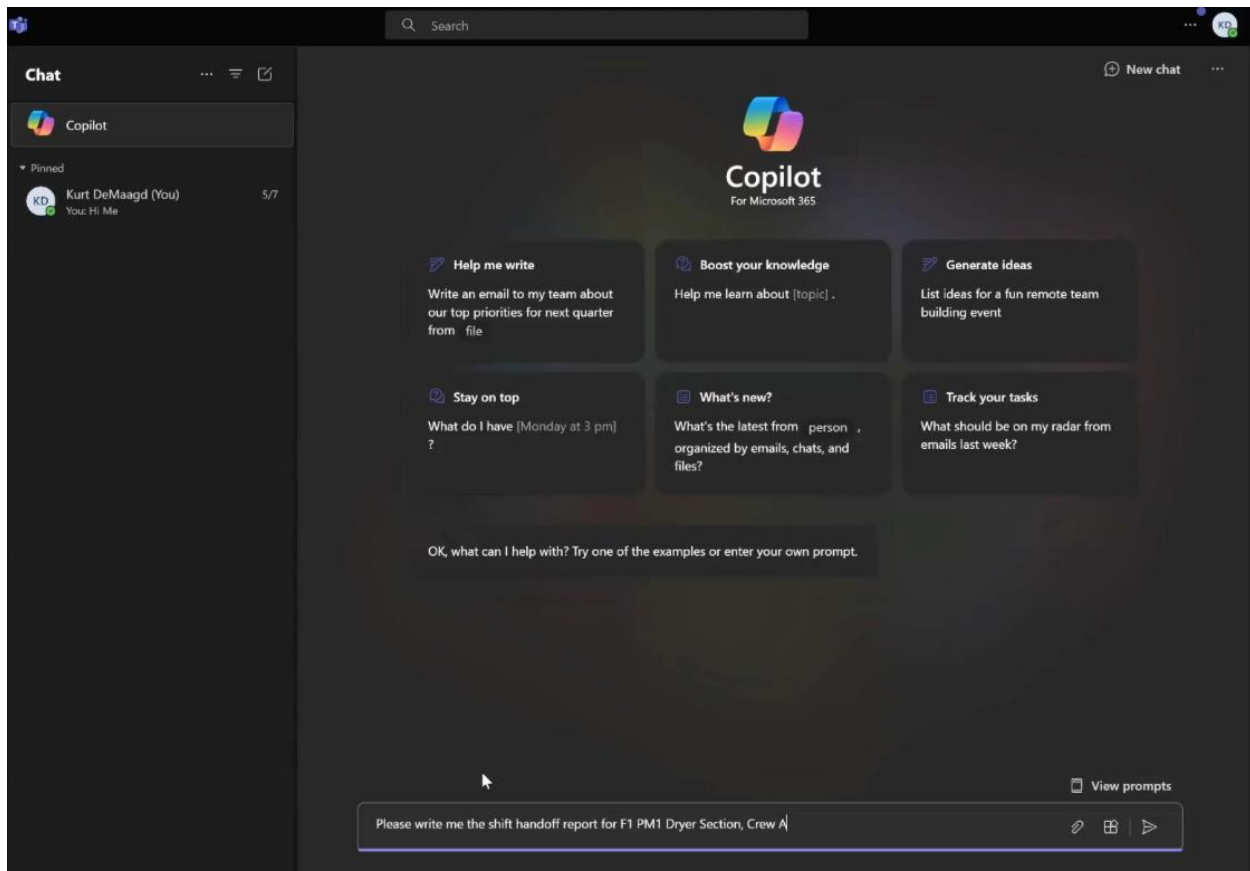
The Agent produces a ready-to-use report that can be shared in shift change meetings immediately. The report includes not only key KPI values and metrics but also provides insights into factors that improved or reduced performance during the shift.

Individual operator feedback can also be incorporated into the report using a human-in-the-loop workflow where they enter their own comments to the automated report for a complete final report. The report can be easily stored in a centralized location, for further analysis.

How the Shift Handoff Agent Works

The Shift Handoff Agent employs a multi-agent architecture consisting of an Orchestrator Agent that coordinates system operations and manages data flow between components, an Analysis Agent that interfaces with Sight Machine's native CoPilot system to leverage underlying machine learning algorithms, and an Intelligence layer that processes data to identify primary factors affecting production performance.

M365 CoPilot integrates with Sight Machine's production systems through standardized REST API endpoints to retrieve key performance indicator (KPI) values and operational metrics in real-time.



The Shift Handoff agent provides shift-level analysis by:

1. Collecting quantitative performance data through API integration
2. Applying machine learning models to identify production influencers
3. Generating qualitative insights regarding shift performance and operational events
4. Delivering contextual information to support operational decision-making

Accessing the Agent

Operators can use simple prompts to specify the target machine and shift in M365 CoPilot; the Agent then automatically generates a comprehensive report using the multi-agent architecture described above.

Operators can enrich the automated reports with contextual insights through the "Add Operator Comments" feature. This human-in-the-loop approach combines automated efficiency with valuable operator expertise that pure automation cannot capture.

Chat

Copilot

Pinned

Kurt DeMaagd (You)

You: Hi Me

5/7

Copilot

For Microsoft 365

Help me write

Write an email to my team about our top priorities for next quarter from file

Boost your knowledge

Help me learn about [topic] .

Generate ideas

List ideas for a fun remote team building event

Stay on top

What do I have [Monday at 3 pm] ?

What's new?

What's the latest from person , organized by emails, chats, and files?

Track your tasks

What should be on my radar from emails last week?

OK, what can I help with? Try one of the examples or enter your own prompt.

Please write me the shift handoff report for F1 PM1 Dryer Section, Crew A

View prompts

Activity

Chat

Copilot

Pinned

Kurt DeMaagd (You)

You: Hi Me

5/7

Copilot

Please write me the shift hand...

Factory Copilot Insight

Detected Issues:

- Performance on the Dryer Section (F1_Paper_Mill_PM1_Dryer_Section) is primarily measured by the 5th Dryer Section Speed FPM [1.2].
- Factors positively affecting performance include 4th to 5th Dryer Section Draw, 1st Section Draw %, 4th Section Draw, 2nd Section Drive Load, 3rd Section Dryer Pressure Diff OP, and 1st Section #3, 5, 7 Dryer Diff COV [1.1].
- Factors negatively affecting performance include 3rd Section 2nd to 3rd Dryer Section Draw, 1st Section Draw, 1st Section #3, 5, 7 Dryer Diff Pressure Indicator B, and 1st Section #7 Dryer Steam Pressure COV [1.2].

KPIs and Metrics

Machine Speed: 2702

Basis Weight: 30.51758

Good Tons: 505.036

Cull Tons: 4.5525

Add Operator Comments

OK

Send the shift handoff report to my manager

What are the performance metrics for Crew B?

What are the detected issues for Crew A?

...

Activity

Chat

Teams

Calendar

Calls

OneDrive

Developer ...

...

Apps

Chat

Copilot

Pinned

KD

Kurt DeMaagd (You)

You: Hi Ma

5/7

Copilot

Please write me the shift hand...

New chat

Factory Copilot

F1 PM1 Dryer Section

Crew A (9 May 2024 at 06:00 to 9 May 2024 at 18:00)

Factory Copilot Insight

Detected Issues:

- Performance on the Dryer Section (F1, Paper Mill, PM1, Dryer, Section) is primarily measured by the 5th Dryer Section Speed FPM [1.3]
- Factors positively affecting performance include 4th to 5th Dryer Section Draw, 1st Section Draw %, 4th Section Draw, 2nd Section Drive Load, 3rd Section Dryer Pressure Diff OP, and 1st Section #3, 5, 7 Dryer Diff COV [1.3]
- Factors negatively affecting performance include 3rd Section 2nd to 3rd Dryer Section Draw, 1st Section Draw, 1st Section #3, 5, 7 Dryer Diff Pressure Indicator B, and 1st Section #7 Dryer Steam Pressure COV [1.3]

Operator Comments:

- Short staffed, working multiple machines
- Contamination from material from WIP

KPIs and Metrics

Machine Speed: 2702

Basis Weight: 30.51758

Good Tons: 505.036

Cull Tons: 4.5525

Edit Operator Comments

Send the shift handoff report to my manager

What are the performance metrics for Crew B?

What are the detected issues for Crew A?