INDEAVOR

5 Levels of Schedule Automation for Organizational Success

Guide

Intro

PEOPLE ARE YOUR MOST IMPORTANT ASSET.

A shift schedule is the most important, and usually the first, point of contact between the employer and worker. If the right employees are not in the right place at the right time, how does a job or task get accomplished? Since shift-based environments rely on hourly employees, the agility of your scheduling process can help predict your organization's success.

To help measure the value your current scheduling process is providing to your organization, we created this comprehensive guide that explores the **5 levels of schedule automation.** This guide not only covers the 5 levels, but how you can apply them to making your organization more successful and all this while providing employees - your most important asset - a more flexible work environment.

Level 0 – Level 1:
Manual Processes

Treating scheduling as an administrative task.

Level 0:
Manual Processes

This level takes a bare minimum approach to scheduling, yet a shocking majority of large organizations are still relying on outdated, time-consuming manual processes to create their shift schedules.

We surveyed nearly 150 schedulers across complex, shift-reliant industries and more than half of respondents surveyed claimed they were stuck using paper or spreadsheets to schedule employees and shifts. Ouch.

34%

Rely on paper or spreadsheets.

28%

Spend 5 hours a week dealing with OT.
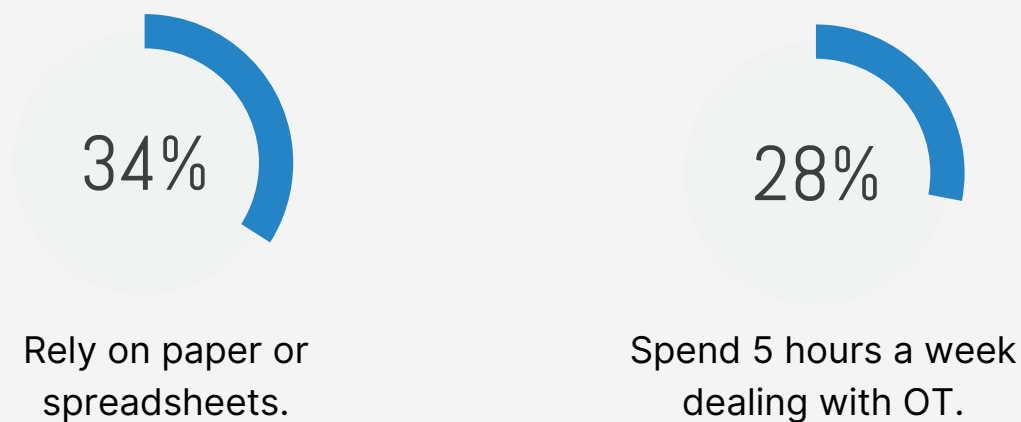
The results show just how complicated the daily nuances of scheduling can be, when done manually.

- 34% of those surveyed said they're still relying on paper or spreadsheets and are spending over 5 hours creating shift schedules each week—*and that's just the straight time schedule*.
- 28% said they are also spending over 5 hours each week dealing with overtime coverage alone.

So, why stick with manual processes and create such a hassle?

Level 0:
Manual Processes

Typically, the process is something the scheduler "owns" and is very comfortable with it. They likely created these spreadsheets years ago, and it was a giant improvement at the time. It becomes easy to rely on one person's tribal knowledge; they can spend time doing this complex thinking in their head surrounding each employee's qualifications, hours worked, and availability, and then feel accomplished hours later when they've solved the puzzle.

However, this can create serious negative business consequences. Relying on the tribal knowledge of one or a few individuals means trouble begins as soon as they resign, or are out sick, Or need to train another employee on all the complicated information they have stored in their brain, and across disparate locations. There are no cost or compliance control capabilities.

The inflexibility of paper leaves you vulnerable to errors like unexpected vacancies that hurt operational efficiency, inadequate rest periods that increase compliance risk, and un-budgeted overtime spend.

Level 1:
Templated Base Schedules

Although still an exclusively manual process, Level 1 is a slight upgrade from paper and spreadsheets.

Your scheduler has created some basic templates, most likely in a simple online tool, that contain pertinent information for each employee, like on/off patterns and their default job and default shift.

The limitations are basically the same as Level 0—inflexible, a reliance on tribal knowledge, and no cost or compliance control. Any changes to status quo requires manual entry.

Similar to a time and attendance system that simply tracks when an employee punches in and out, T&A tracks employees that are (or are not) at their base job and base shift; that doesn't really do much for instances that disrupt the status quo. With every change to the real-time facility schedule—employees swap shifts, someone calls out sick, etc.— someone is responsible for updating the T&A schedule so that the right people get paid for time worked.

Once the schedule is pre-set, it's static until someone initiates a change. The same can be said for templated base schedules. The limitations are basically the same as Level 0 - inflexible, a reliance on tribal knowledge, and no cost or compliance control.

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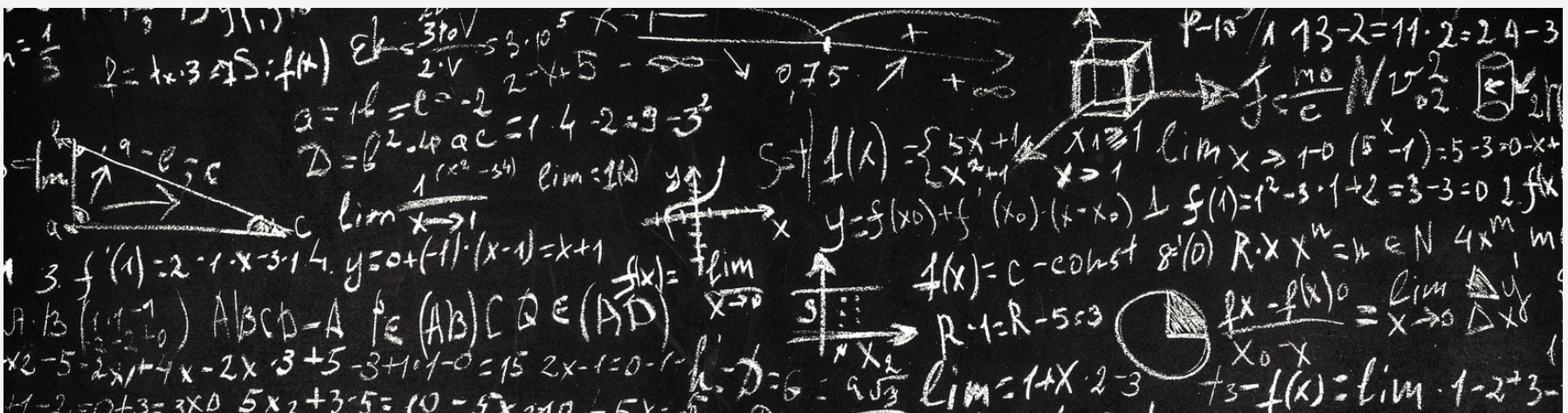
Level 2 – Level 4:
Schedule Generation Algorithms

Scheduling as a tool to keep up with demand.

Level 2:
Schedule Generation Algorithms

Organizations understand that scheduling processes can be leveraged to keep up with demand needs if they take a proactive approach which is scheduling algorithms. Labor demand and employee qualifications are part of the rule logic, but in a simple way.

Level 2 algorithms would assign employees to their home job on their home shift if demand requires. For employees that aren't put into the schedule, they either stay unassigned or are placed in a labor pool for manual intervention to take place.

In less complex environments where staffing is more predictable and static, the algorithm might be able to achieve 80% accuracy of the straight time schedule. It's certainly a start on the demand based scheduling journey, but there are many roadblocks on the way to reaching true operational efficiency: consistently being staffed to match only what you need, and in accordance to complex industry, union, and state rules.

Level 3:
Basic Demand-Driven Scheduling Algorithms

The obvious limitation is that manual intervention is almost always necessary. While your schedulers may be equipped with great plug-and-play "rule sets" that assign employees to each required job based on their qualifications, your front-line supervisors need to step in during realtime disruptions.

For example, say two employees call out an hour before their shift is due to start. Managers have to call or text employees frantically to get this filled. Not only is this a waste of their time, but it's also negating the efforts of building compliance rules into the algorithm. In reality, is that manager considering the qualifications of the employees they are reaching out to? Or, are they dialing just about anyone to fill in the gaps? Most likely, it's the latter, not the former is taking place.

Another restraint is that overtime scheduling is typically done with various unconnected tools; tools that do not consider the algorithm at all. Therefore, the OT shifts may be completely overstaffed because demand needs aren't considered. Manual intervention is almost always necessary.

Level 4:
Multi-Stage, Custom & Configurable Demand-Driven Scheduling Algorithms

Extremely similar to Level 3, except the algorithms are configurable as opposed to some sort of plugged-in code extension. If scheduling rules change, the updates can be done easily and transparently without paying the vendor for an entirely new statement of work.

What's better is these algorithms can usually accommodate more complex logic, like upgrading. Ever have a situation where there is an open, high-paying job, but you do not know how to fairly "open up the playing field"?

With upgrading logic, this backfilling process is automated. The jobs are ranked by pay, and the most senior employee—who is both available and qualified—would be offered to take that job instead of their normally assigned job. Such advanced, configurable algorithms can actually help keep your employees satisfied.

With paper and basic Level 2 processes, you would not be able to leverage scheduling as an opportunity to boost employee satisfaction. Such advanced, configurable algorithms can actually help keep your employees satisfied.

Another restraint is that overtime scheduling is typically done with various unconnected tools that fail to consider the algorithm at all. Therefore, the OT shifts may be completely overstaffed because demand needs aren't considered. Manual intervention is almost always necessary.

Level 5:
True Automation

Treating scheduling as a business-driving solution for increasing productivity and cost savings.

Level 5:
Automation of Straight Time, Overtime & Regeneration Scheduling Processes

You deal with minor, if any, manual scheduling—for straight time, overtime, and even those pesky unforeseeable real-time management incidents.

By achieving 99% automation with all your complex scheduling needs, your schedulers, and front-line supervisors are equipped to handle any known or unforeseen circumstance. Someone calls in sick at the last minute and a replacement is required. An event occurs that significantly changes your production plans, like a machine breaking mid-shift.

Do any of these operational hiccups cause a ripple effect where many assignments need to be moved around as a result?

No problem.

The re-adjustment of the schedule is complete in just a few clicks of a button, putting managers and hourly employees on the same page, and helping your organization achieve scheduling operational efficiency.

With full scheduling automation for all scheduling-related issues, supervisors no longer need to rely on exhaustive manual processes, while still ensuring rules are followed.

Use Cases

Indeavor's automated employee scheduling and absence management solution can provide organizations Level 5 capabilities. Our scheduling method builder tool allows us to configure complex algorithm logic you can use long-term.

We optimize scheduling based on an organization's specific needs. Whether it's scheduling by seniority, getting volunteers into job bids first, or offering overtime to those with the least amount of OT first. Maximizing how many employees you can have on a straight time schedule reduces overtime spend, and is referred to as "accommodation".

Indeavor specializes in automating the "accommodation" process. Without automation, frontline managers are stuck making accommodations manually, which is extremely error prone, especially while attempting to adhere to your scheduling rules.

When mistakes happen, like an employee consistently being passed up for OT opportunities, this leads to an employee grievance. Not only does this negatively impact their satisfaction, but it can also lead to fines if you are failing to meet state labor laws or stipulations in a union contract.
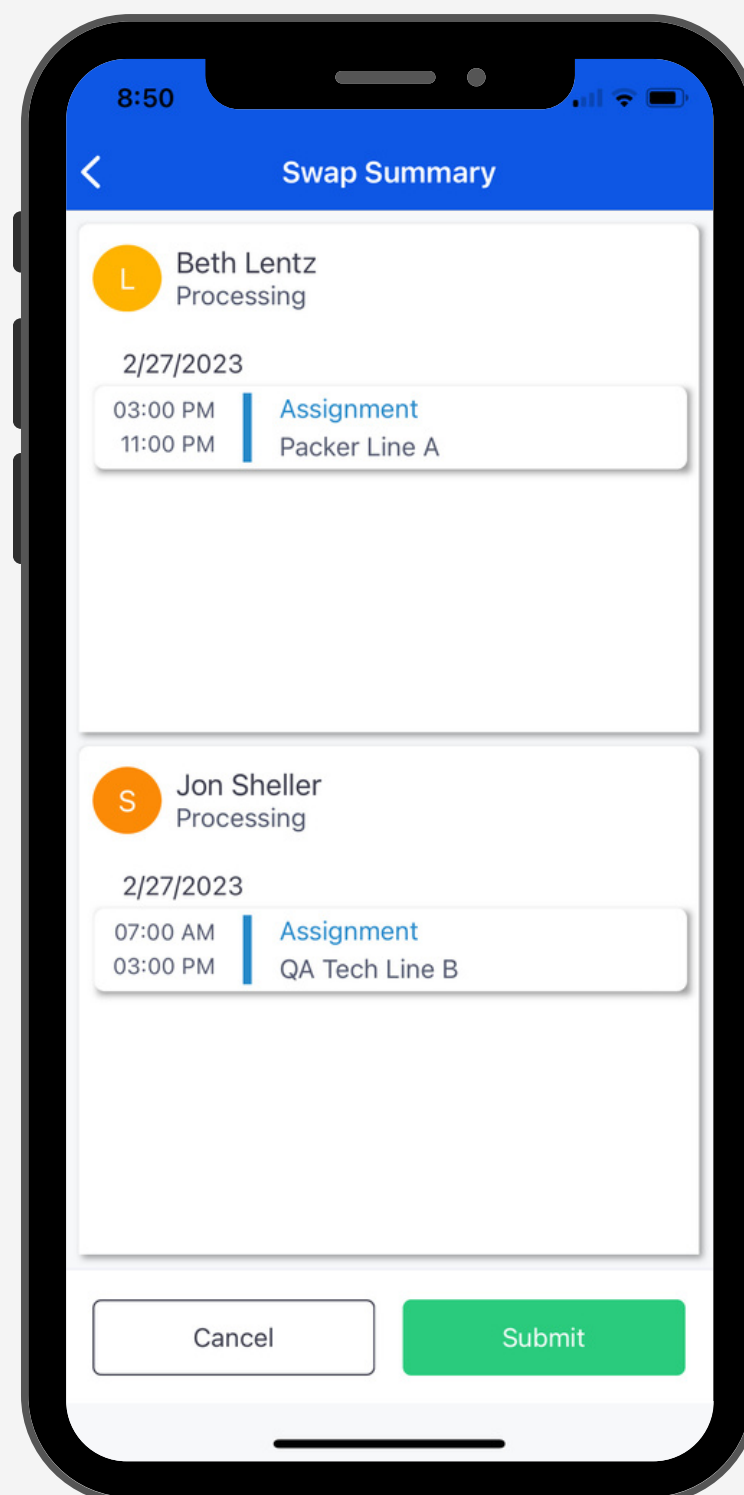
Use Cases

Some organizations simply don't have accommodations. This leads to two outcomes: gaps in production that create overtime overruns, or filling said gaps with an inefficient resource (i.e., higher cost or burned out employee). Before partnering with us, a current customer had OT hours account for 25% of their labor. We are now reducing their overall OT by 10%.

Without Indeavor Schedule, frontline managers have to call or text employees. This leads to mistakes concerning efficiency and/or cost. If you fail to consider each employee's skillset as you scramble to fill the vacancy, that can impact production cycles or cause a task to be completed poorly.

If you don't know each employee's hours worked for the week, you risk offering unnecessary and not budgeted OT.

Use Cases

Displaced employees would have to go out of their way to volunteer for shifts in the event that their regular job is not available. This is extra frustrating when an employee shows up to work and is told they are not needed. The scheduler also has to spend multiple hours correcting the schedule in order to ensure that it adheres to union and plant rules. This is equally as frustrating for them, as it is time-consuming and error-prone.

Our de-crewing algorithm takes displaced employees and assigns them to other available jobs they are able to work, so they do not lose out on the shift. Since there is no manual volunteering and the checks and balances are already in place to ensure the employee is qualified, managers can push a button and focus on other important tasks. Meanwhile, employees are taken care of in this process.

Employees do not like required overtime; they prefer being able to volunteer for it on their terms. Without accommodations, forced OT becomes necessary. The more employees can volunteer for OT, vacant jobs, or last-minute replacements, the more you increase morale. The Indeavor Engage mobile app gives the power to do that.

Conclusion

#01 — *Keep operations running smoothly—automatically schedule only qualified employees in accordance with your staffing standards*

#02 — *Save time and money on violations and grievances with consistent compliance to your scheduling and union rules*

#03 — *Ensure schedule fairness with proper distribution of overtime, rest periods, and days off*

#04 — *Give employees more control over their work/life balance and improve morale*

#05 — *Eliminate excess labor costs that arise from over/understaffing, distributing unnecessary overtime, and backfilling with higher cost resources*

The five levels of scheduling automation is designed to help organizations realize how a solution exists that can help you achieve operational efficiency in your complex environment. Keep the 6 Tenets of Scheduling Nirvana Processes in mind.

INDEAVOR

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