



Advanced Scheduling:

The Devil is in the Details

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Ask any labor scheduler at a large organization about their job and the response will likely include words such as skill, magic, and luck. Successful scheduling means getting the right people to do the right job at the right time. When scheduling is done right, jobs are filled, employees are satisfied, and the organization is saving money in the process.

Many organizations are battling overtime costs. Read a newspaper and you are bound to find a story about a municipality or state agency fighting high overtime costs, or an article discussing the percentage of labor that healthcare organizations spend on overtime.

Scheduling is the best method of containing these costs, but it is difficult to do. The difficulty stems from the nature of the problem. Scheduling is a very complicated puzzle; it not only has many pieces, but those pieces are constantly moving. Manually solving this puzzle is time-consuming, and automation significantly decreases the time spent on this process.

Organizations searching for ways to automate the scheduling process are looking for a comprehensive solution that makes it easy to find and use schedule information, regardless of its source. Retailers, for example, need to correspond schedules to known “demand information” gathered from point-of-sale (POS) systems. To be effective, the scheduling system must seamlessly integrate with POS and other systems.

This paper discusses four common scheduling scenarios that can be automated with WorkForce Software’s EmpCenter™ Advanced Scheduler.

- Filling Unpopular Shifts
- Staffing During Vacations
- Backfilling Unplanned Absences
- Schedule and Shift Swapping

Filling Unpopular Shifts

Unpopular shifts are the ones that nobody really wants to work. Organizations that operate around the clock have three or four shifts per day, so the 11 pm to 7 am shift might be unpopular. Employees might have the opposite reaction at another organization, and the scheduler must take this into consideration. For example, the nighttime activity is stronger at casinos than during the day, so dealers prefer the busier slots so they can earn more tips.

Getting employees to fill unpopular positions can be challenging. Organizations that run 24/7 year-round, including weekends and holidays, do so because it is mission critical. However, they are faced with the challenge of how to fill those shifts within a framework that allows them to attract and retain the best labor within their market.

One way of attracting and retaining skilled employees is by empowering them with the ability to manage their work time and select shift preferences. For example, an employee might find a day shift more preferable to a night shift, or a particular job category might be easier for that employee’s family schedule.

While considering employee preferences, employers must also remain fair and impartial when assigning shifts and jobs. They must be careful to distribute unpopular shifts evenly. They may

accomplish this goal by using rotation patterns or complex algorithms, but the employees must feel they are being treated fairly.

Another scheduling factor that may have an impact on aligning schedules with employee preferences is the collective bargaining agreement. Union contracts often determine who works these unpopular shifts, so it may not be possible for the scheduler to assign shifts according to preferences. The big challenge is in correctly enforcing a contract and avoiding fines and penalties, while attempting to keep employees happy.

Automating the Unpopular Shift Scenario

An automated system like EmpCenter's Advanced Scheduler can be configured so preferences, union agreements, equalization, and distribution of unpopular shifts are optimized in a way that treats employees fairly while reduces overtime costs for employers.

For example, an organization with a shift pattern that schedules employees for 12-hour shifts for two days, then off for two days, and then on again for three days before finally letting them off for three days, is said to have a two/three shift pattern. This pattern also rotates employees through day and night shifts. Advanced Scheduler manages this and other patterns automatically. The result is a win-win for the employees and the organization.

In addition, an employee who works 24 hours in two days, and then the next week works 60 hours in five days actually works a total of 84 hours in two weeks instead of the more traditional 80. The net result, and the reason it is good for an employee, is the employee has more days off. An employer will also benefit because every two weeks they are getting 84 hours of productive time from an employee instead of 80.

Another pattern example is the 9/80 rule, where an employee works nine hours a day for five days and then nine hours a day for four days, taking every other Friday off. These patterns help organizations ensure that day and night shifts are covered. It also gives employees more time off, while increasing productivity for the organization.

Managing multiple work crews in a variety of environments or departments, with different start dates within a week, can be a daunting task. However, by automating these rules and patterns and then assigning employees to these patterns, scheduling the baseline labor is pretty straightforward.

Organizations also have to manage elements that sit outside of labor, but are within the workday. For example, an organization might mandate that its employees have annual health exams, attend trainings or seminars, etc.

When employees need a certification to qualify for their job, it is important that the organization can plan for and schedule those employees for those events, even though they are not part of their regular job. It is equally important that the organization is able to backfill that position during the employee's absence.

Staffing Popular Vacation Times

Vacations are great, but not when everyone wants to take one at the same time. Regardless of the market or the industry, most people want the same time off. Popular holidays in the United States

include July 4th, Christmas and Thanksgiving. When an organization has a limited amount of labor and a maximum amount of work, it must ensure that the right staff complement is on-hand at all times.

Organizations handle the distribution of vacation in different ways. They may have a bidding process, a first-come first-serve process, or a rolling bidding process. It is important that the work rules and collective bargaining agreements are met, and that vacations are distributed fairly.

Automating the Popular Vacation Times Scenario

Imagine a scenario in which an organization manages the distribution of popular vacation times by offering multiple rounds of bidding via a web browser. This self-service model allows employees to participate over a period of time and decreases the costs of processing vacation requests.

The process would look something like this:

- The organization allocates vacation blocks at the beginning of each year
- The first round of picks is sorted by seniority (the organization may also factor in good performance and attendance) and employees are allowed to select preferred times for about a third of their picks, so the less-senior people also have a chance at selecting their preferences
- After the first-round of selections, a second round is open with no limitations on preferred selections
- Finally, a third round is open on a first-come first-serve basis

This is an example of the rules and processes that can be automated by EmpCenter's Advanced Scheduler. It ensures that the organization can reward employees for length of service, and provides incentive for employees to stay with the same organization and work their way upward. The net result is a process that helps an organization stay competitive and retain employees.

Managing Sick Days

Regardless of the industry, most companies have a problem with employees calling in sick or just not showing up for work. Perhaps an employee resigns without giving a two-week notice and just decides not to come in the next day, or an employee comes down with the flu and cannot come into work.

While organizations cannot stop unexpected vacancies, they can prepare themselves with processes designed to rapidly find qualified replacements for empty positions. A second business benefit of advanced planning is employee satisfaction, because employees often request extra shifts so they can earn extra money.

Organizations can take extra shift requests into account when trying to determine who should fill a vacancy; often, they will first refer to the list of employees who expressed an interest in working the extra shifts before they begin to call other employees.

The process starts when someone calls in sick. The first thing the organization must do is remove the employee from the schedule, so the supervisor knows not to expect that employee. Next, a list of qualified substitute employees must be assembled, with employees ranked in order by seniority, the last time they had the opportunity to substitute, etc.

If the scheduler is able to create replacement-worker lists quickly and accurately with all the information needed to find a substitute, then the chance of a lag in productivity is significantly reduced.

Automating Sick-Day Substitutions Scenario

ACME manufacturing has multiple labor unions and multiple work categories. There are also a number of union-negotiated rules that determine the order in which employees are called in for extra shifts; the process remains the same regardless of the cause of the shift change.

For example, when a substitute worker reaches the threshold for overtime pay, the organization may elect to choose a substitute that is further away from the threshold. For example, when filling a seven-hour substitute shift, the employee with 33 hours time worked that week is a better choice for the organization than an employee who has already worked 36 hours that week, because the latter will be paid for 3 hours of overtime pay.

An organization automating the substitute process will sort eligible employees from the furthest distance to overtime to the shortest in order to minimize overtime costs. However, contracts may also take into account how often employees can be skipped.

For example, a contract may stipulate that an employee can be skipped over by supervisors once per shift, so the scheduler and the scheduling automation system must ensure this rule is applied only once per shift.

EmpCenter's Advanced Scheduler also provides an audit trail for each transaction. Employee responses are recorded and overtime totals are updated, so if an employee challenges any decision, the organization will have a complete record of the circumstances.

The automation process looks like this:

- Record employee sick time and notify manager
- Create a list of suitable replacements
- Sort list by rules, including extra time requests, distance to overtime, seniority, etc.
- Call names on list until substitute is found
- Place substitute on schedule and notify manager
- Record all transactions and factors for each decision

Managing Shift Swaps

Shift swaps are becoming increasingly popular, and many organizations are finding it is a terrific way to reduce absenteeism. Companies that give employees greater control over their schedules and allow them to proactively manage their absences spend less on overtime costs, because their employees do not have to resort to calling in sick or taking personal leave.

Without automation, employees manage shift trades using a manual process. They must meet with the co-worker, go to the HR office, fill out forms, and wait for the reply. Notes left on a desk may get lost, and information may be inaccurate. An inefficient process, it costs the company in lost productivity. Organizations can increase productivity simply by giving employees the tools to manage shift swaps outside of their shifts.

One way is through a self-service interface, in which employees submit a request for a shift swap with another employee. Organizations can automate the approval process using workflow technology. Business rules for factors such as overtime, skill requirements, and maximum work days in a row can be enforced with a web-based system.

The Shift-swap Automation Scenario

Organizations that offer employee self-service applications increase productivity and employee satisfaction. With automation, employees manage the shift-swap process on their personal time. Self-service can also be used to push responsibility back on the employees by making them find substitute workers for their absences, instead of shrugging off this work to the scheduler.

When employees submit shift trade requests via self-service, the application can evaluate the request, calculate the impact of the request on the organization, and automatically reject shift trades that violate specific rules.

For example, if two employees want to trade shifts, but one does not have the skills to do the other job, the application can automatically reject that request and notify the schedulers.

Either way, proper status notifications are sent to supervisors and the employees involved, so everyone is kept in the information loop.

Getting Information into the Right Hands

Once the schedule is complete, managers, schedulers, supervisors, and other constituents need access to it, so reporting becomes a very important element. Most scheduling applications have canned reports that convey 90% of the information, but the remaining 10% of those information needs cannot be anticipated; thus, the ability for managers to create ad-hoc reports is a must.

The automated solution must have a reporting tool that is robust and easy to use. The tool must also adhere to security protocols, so a system user only has access to the information they are supposed to see. It must also be flexible to adapt to the specific requirements of each sub-unit within the organization.

Lastly, compliance with many state and federal regulations, and labor agreements, is dependent on specific reporting requirements. They must be simple and clear, so everyone can understand the information and have access to it.

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