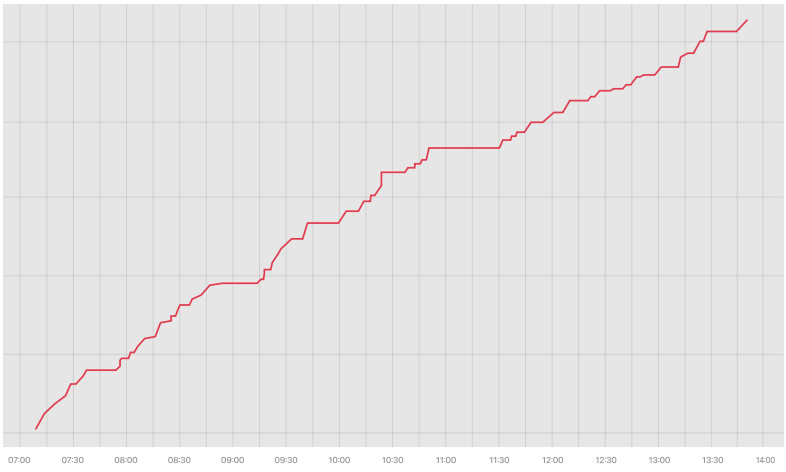
Correlation between NIVY Watch and production data

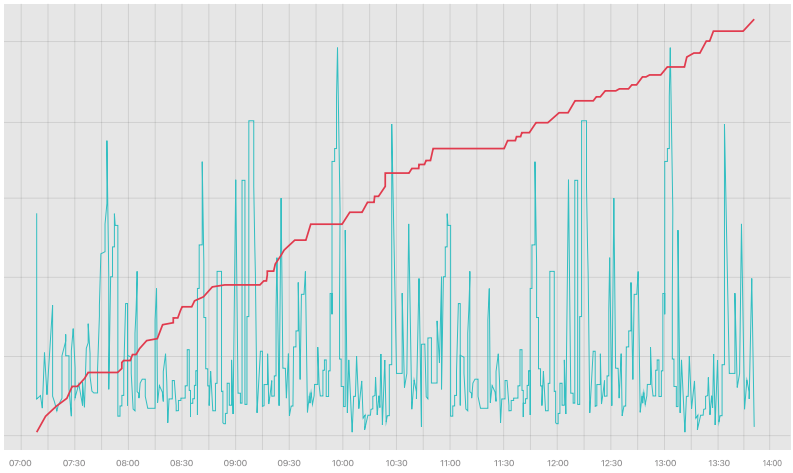
NIVY Watch system gathers important data consisting of worker activities (such as steps, distance, indoor positioning, etc.) that can be used to identify possible areas for enhancing employee productivity. Although such data alone can have substantial value, a correlation with production data identifies areas with a potential for work process improvements which could results in increased company productivity.

Let's take a look at an example of a manufacturing company. The company has workers operating machinery producing goods. All such workers are equipped with NIVY Watches, which anonymously collect workers' activities. In this case, there is no need for a personalized mode, as it would not benefit the analysis in any way. The following picture shows the productivity data of a randomly picked worker during a one working day. The curve increases when the worker produces goods and is flat when the worker does not produce anything.



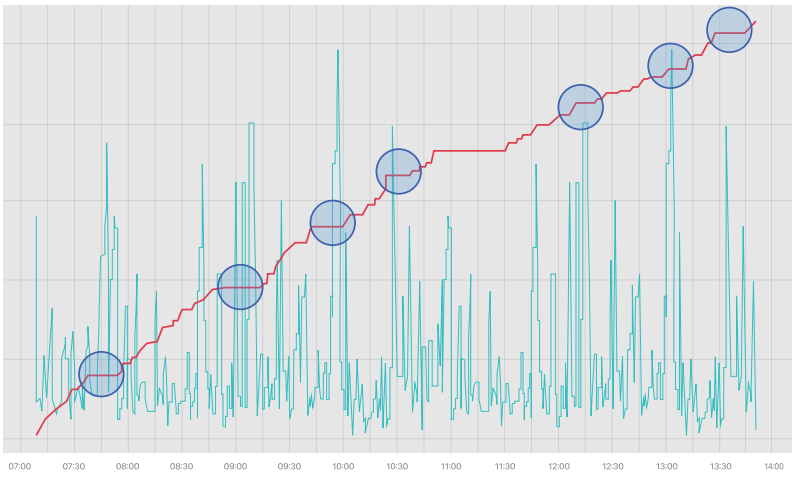
The red line shows the productivity of a worker by the number of goods produced during the workday.

So let's take a deeper look at the flat areas and whether there is a way to optimize them. It is difficult to identify the reason for the insufficient production activity without having additional data describing all other worker activities. So let's make a correlation between the production data and the worker's distance from his working place, gained from the NIVY Watch. The workplace area can be marked with a single Bluetooth beacon so that the NIVY Watch can easily measure the distance of the employee from this point. The next picture shows the correlation chart.



The red line shows the productivity line. The green line shows the employee distance (in meters) from the workplace.

As you can see, certain flat productivity areas are correlating with a significantly increased employee distance from his work area. One possible explanation can be that this happens due to a situation where the worker is out short of essential material and he needs to leave his work area and move to a storage rack to retrieve new packaging material. To get a better understanding of the situation, we gathered additional information from the NIVY Watch. The storage rack is equipped with another Bluetooth beacon and every nearby appearance of the worker (e.g. 5 meters) is recognized and stored to the NIVY system.
If we add all of the worker's rack occurrences to our correlation chart, we get the following picture.



The blue circles show every occurrence near the rack beacon.

There were seven cases per day when the worker moved to the rack to retrieve material.

Thanks to NIVY Watch we now have important information that can be used to find work process optimization which can result in increased productivity (e.g. rack movement, or to secure enough essential work material in front).

This example shows how the correlation between production data and work activities data, gained from the NIVY Watch system, can show companies hidden defects in their work processes.

For more information about NIVY Watch visit https://nivy.watch, or contact us at nivywatch@resco.net, or +421908568412.