PI Machine Learning Usecases

Learn how PI Machine Learning can be utilized to predict and forecast process events to help you improving all your processes.

Improve your customer facing delivery reliability

One core problem in many companies is the customer facing delivery reliability. In many cases promised delivery times cannot be hold and orders will be delivered significantly later than planed. Frequent missed delivery dates will set you under pressure of failing to offer an explanation and lower your customer's satisfaction significantly.

Correct planned delivery times

In our example we take a look at a purchasing organization. In all purchasing organizations a planned delivery time for each order is set whenever a new order is placed. It is of great importance that these estimated delivery times are estimated correctly. On the one hand you will pile up too much goods if you allways order too early and your warehousing costs will explode. On the otherhand whole production lines might have to stop if the necessary goods are not arriving on time.

PI Machine Learning can leverage existing R-algorithms to recommend correct planing times. For example you can simply fit a distribution on delivery times and specific materials. Thereby it is possible to set a confidence interval for example of 80 %, implying you want to be 80 % sure a delivery is made after that many days. Fitted to all orders that were made in the past, PI Machine Learning can give you a recommendation, on how you should adjust your planned delivery times.
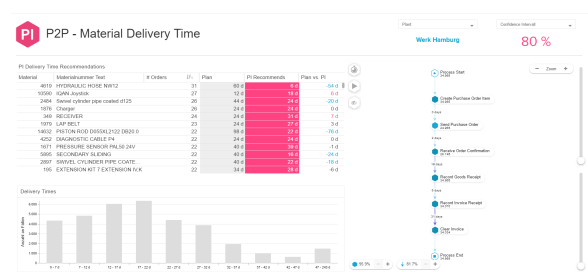
Predict when will my open orders arrive
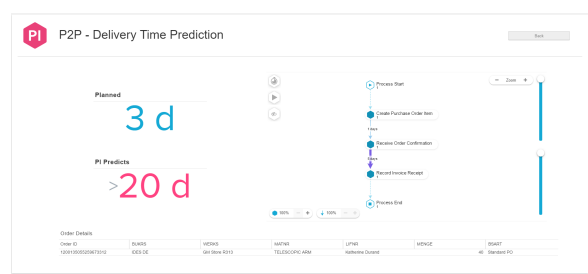
Of course a good plan is a nice thing to have, but you also need to know how will my already open orders behave. PI Machine Learning allows you to utilize the most advanced machine learning algorithms from neural networks and deep learning to simply fitting algorithms to make predictions on all your open orders.

For example you can train a Bayesian Predictor on features like the material number, plant, vendor and many more to make a prediction on when will my order actually be delivered. All of a sudden it is possible to react to delays or early deliveries before they even happened. Of course this will increase your own customer facing order reliability by light years.