



Sheet metal processing/Metallurgy

REFERENCE
2021

INTRODUCTION

METAL TRADE COMAX, a.s., (MTC) is engaged in continuous painting (as the only company in Europe), it is also a producer of foundry alloys, aluminium and copper pre-alloys and as the only one in the Czech Republic, it also provides supplies of liquid aluminium. It has 4 production plants and employs 670 people. They were looking for a complement to their existing SCADA system for their plants that would better meet the requirements of modern production, help to optimize processes and thus reduce costs.



ABOUT THE PROJECT

Currently, mySCADA is running in Kolín and Velvary and monitors operations on the painting, cutting and packaging lines. The system connects about 20 machines and allows to collect, store and evaluate production data. Individual screens relevant to each part of production can be displayed using a clear menu.

Ex. The foreman can see and work with the entire system, quality control primarily uses real output data and compares it with planned figures. Employees have been trained and can therefore use the system to its full potential, e.g. they can export important data themselves or add notes for others.

As production information grew, the developers had to look for a new system that better matched their requirements.

The flexibility and openness of the development environment became the most important criteria for selecting a new system. The ability to **continuously adapt the project** and modify it according to the needs that arose at the time proved to be the most important requirement for the new system. **Interconnectivity** with the existing system was also absolutely crucial. Another plus point that contributed significantly to the choice of mySCADA was the ability to connect an **unlimited number of users**. This solved MTC's licensing problem.

An important selection criterion was the local technical support both by phone and email, which contributed to the rapid development of the project and its easy integration into the existing system.

mySCADA allows the connection of a large number of static and mobile devices, which was not possible in the original SCADA version. Moreover, connecting more devices does not mean more costs in the case of mySCADA, which is, on the contrary, a classic "trick" of most SCADA manufacturers.

Ex. Previously, operational problems occurred mainly in the execution of orders: parameters were written in the form of long text directly on the purchase contract, inaccuracies occurred, non-compliance with the yardage, late arrival of colours or wrong choice of colours, non-compliance with the packaging code, all this led to errors and huge costs (high scrap rate).

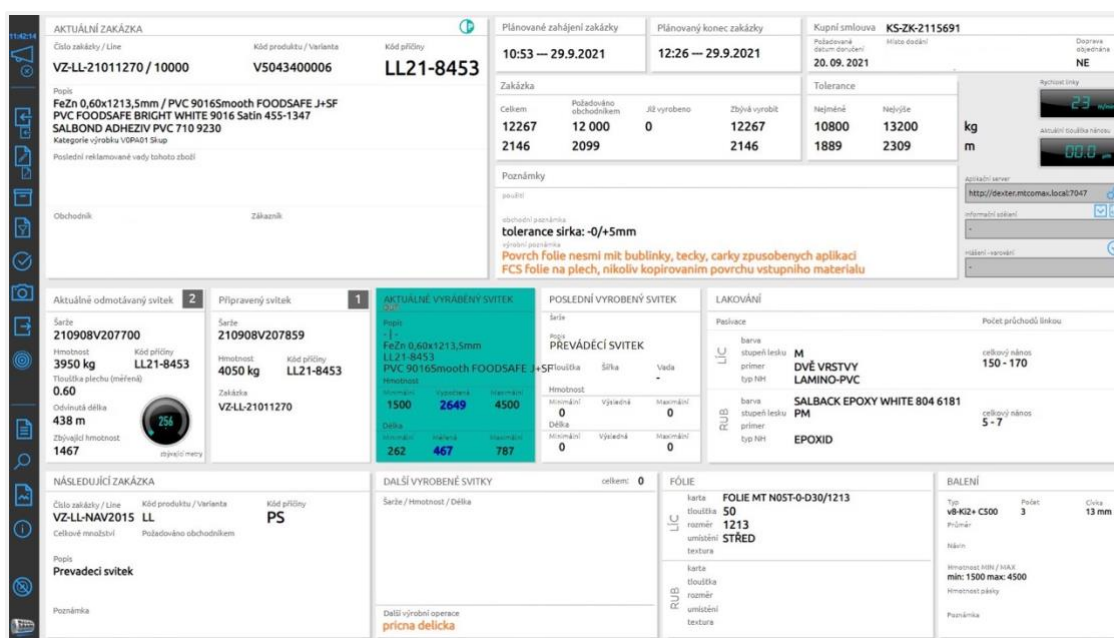
It was because of these shortcomings that the company had to implement mySCADA software in addition to the existing Genesis 32 (Iconics) system, which eliminated the errors of the past and added many features that MTC uses extensively.

PROJECT - VISUALIZATION

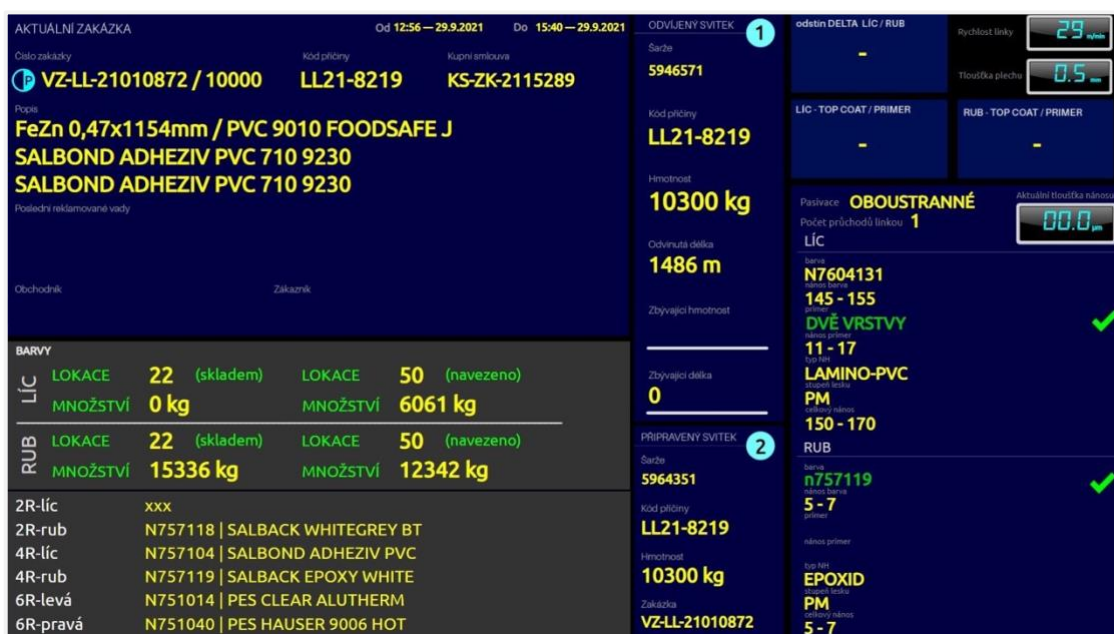
For this project, myPRO software was chosen as the ideal solution for such a large installation. Data is read from various automated machines primarily from Simatic (Siemens), SQL databases, etc.

Currently the system reads data from about 20 machines and devices. In the case of an unexpected event, an alarm appears on the screen and the line operator can start dealing with the event immediately (without delays). At the same time, the system can also alert via SMS or email.

Ex. When changing the order (from old to new), it is necessary to change the roll. Before the implementation of mySCADA it was not possible to control how long the exchange takes, and why it started later. With the new control system, the delay can be easily quantified, the specific costs associated with it can be documented for a given case and therefore processes can be easily optimized.



Picture 1 - Order Overview



Picture 2 - Order Detail

Číslo zakázky		Kód příčiny		Kupní smlouva		LAMINO	
VZ-LL-21010872 / 10000		LL21-8219		KS-ZK-2115289		PVC FOODSAFE REINWEISS 9010 1185mm I	
Popis		FeZn 0,47x1154mm / PVC 9010 FOODSAFE J		150m F455-1342 H +/-0,5		Brucha	
SALBOND ADHEZIV PVC 710 9230		SALBOND ADHEZIV PVC 710 9230		sklad S0		sklad S3	
Poslední reklamované vady				6061 m		48056 m	
Obchodník		Zákazník		NDC		DEMI voda	
Celkem		Vyrobeno		Zbývá vyrobit		MIXER hladina	
20937		0		20937		A 398.13	
4917		4110		4917		B 399.56	
ODVŮJENÝ SVITEK		VÝRABĚNÝ SVITEK		LL21-8219		MIXER vodivost	
Číslo		Popis		Následující zakázky			
5946571		S220GD Z200		VZ-LL-NAV2015			
Kód příčiny		FeZn 0,47x1154mm S220GD		PS			
LL21-8219		PVC 9010 FOODSAFE J		VZ-LL-21012459		2757 m	
Hmotnost		Min Hmotnost Vypočtená Max		LL21-8979		PVC 9010 FOODSAFE J	
10300 kg		1000 460 4000		VZ-LL-NAV2015			
Odvíjetá délka		Min Délka Měřená Max		PS			
1610 m		234 108 939		VZ-LL-21013484		4721 m	
Zbývající hmotnost				LL21-9503		FOLIE MT P02T-2-N50/1250	
3444				VZ-LL-21013514		1671 m	
Zbývající délka				LL21-9508			
808							

Picture 3 - Order Detail 2

AKTUALNÍ ZAKÁZKA		Od 10-53 — 29.9.2021		Do 12-26 — 29.9.2021		INFORMACE K ZAKÁZCE		VYROBĚNÉ SVITKY	
Číslo zakázky		Kód příčiny		Kupní smlouva		MINIMÁLNÍ MNOŽSTVÍ NESPLNĚNO		Vyrobení barva / Hmotnost / Délka	
VZ-LL-21011270 / 10000		LL21-8453		KS-ZK-2115691				celkem vyrobeno: 0	
Popis		FeZn 0,60x1213,5mm / PVC 9016Smooth FOODSAFE J+SF				BALENÍ			
PVC FOODSAFE BRIGHT WHITE 9016 Satin 455-1347		SALBOND ADHEZIV PVC 710 9230				Typ			
Poslední reklamované vady						v8-Ki2+ C500			
Obchodník		Zákazník				Plav			
Celkem		Vyrobeno		Zbývá vyrobit		Rozměr pásu			
12267		0		12267		Hmotnost MIN / MAX			
tolerance sírka: -0/+5mm						min: 1500 max: 4500			
Povrch folie nesmí mít bublinky, tečky, carky způsobených aplikací						Průměr			
pricna delicka						Hloubka			
NÁSLEDUJÍCÍ ZAKÁZKA		Číslo zakázky		Kód příčiny		Počet			
VZ-LL-NAV2015		PS				3			
Popis		Celkem		Požadováno obchodníkem		Cena			
						13 mm			
Poznámky		Počet		Círka		Hmotnost pásu			
						Průměr pásu			
						pricna delicka			

Picture 4 – Order Detail 3

ADDED VALUE

"Time savings, less errors, production data readily available, real-time comparison of machine and production data. Simply having the right data in the right place is the key to savings for us," says Jiří Anděl - MTC programmer.

Other benefits are undoubtedly **the unlimited number of users** and any number of displays. Also, **the variability of the system**, which in practice means that currently the employees themselves say what they need to see on the screens during their shift. Due to the large amount of data at some stations, multiple screens flash on a single monitor at a certain time interval.



Picture 5 - Specific wiring in production

For the development department, the biggest plus is the development environment, which is very open and basically everything can be created or added according to the needs of users. mySCADA can also be easily connected with other ERP systems of the company, with NPM packages (scripting), etc.

CONCLUSION

The new system saves time and costs. By controlling production in real time and reporting the data obtained, the company is able to correct errors in certain areas much more efficiently than it was under the old system, when the risk of poor production was really high. Now, production is virtually error-free, saving costs in the millions.



Evropska 11
160 00 Prague,
Czech Republic



info@myscada.org



+420 224 904 121