

DIRECT EXCHANGE INCREASES PRODUCTIVITY

User-friendly configuration of the measuring signals and troubleshooting during the ongoing process

The ibaPDA of the Fürth-based measuring technology specialists iba AG is a versatile measured value acquisition system for maintenance and production. Its connectivity was further extended with the Request interface for the M1 automation system from Bachmann: Users can now conveniently configure the measuring of data from the controller during ongoing operation. Achenbach Buschhütten, the specialist for modern non-ferrous metal rolling mills, is based in Kreuztal, Germany, and uses both systems successfully.

In the construction of rolling mills and foil slitting machines, one of the key differentiation features of Achenbach is the use of the most advanced and tailored plant technology. For over ten years the company has been using the M1 automation system from Bachmann for the closed-loop control technology in its plants. The ibaPDA system collects the accumulated process data, evaluates it accordingly and dynamically adapts it during the ongoing process.

Achenbach: Idea provider for innovation

The ibaPDA is an extremely powerful PC-based acquisition and recording system for different measuring data. It is capable of processing thousands of signals at a sampling rate of normally up to 1 kHz and up to a maximum of 100 kHz for vibration measurements. »The possible configuration options are numerous. The continuous acquisition of measured values over a long period is just as possible as use as a fault recorder with triggered logging,« explains Dr. Ing. Andreas Quick, head of product management at iba. Quality data and characteristic values can

thus be calculated and further processed from the signals already during the acquisition process. »However, in order to do this, we previously had to define the variables at two places in the system and update them with every modification – on the ibaPDA and on the M1 system. This costs time and is a possible source of errors,« explains Dipl. Ing. Thomas Schmidt, group leader for closed-loop control technology at Achenbach. The requirements set for both system suppliers were therefore clearly outlined: »We wanted to implement a seamless and constant acquisition of data from the entire plant,« Thomas Schmidt outlines the objects and explains further: »If we define data in the iba tool during the ongoing process, the relevant settings and measured value transfers of the controller have to be carried out automatically.«

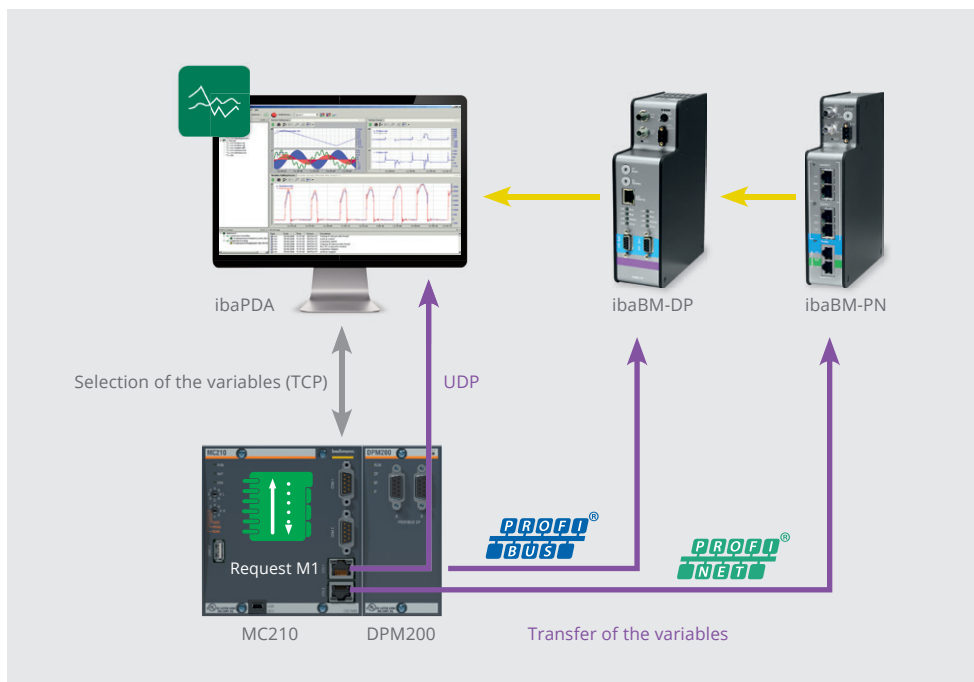
M1 Request module

As in other plants, process data is also collected in a rolling mill, information is transported from one level to the other and data is permanently exchanged. If the requirements change, adaptations mostly have to be made on all the systems



iba AG is a leading product supplier for high quality systems for measured value acquisition and analysis, signal processing and automation. The modular and scalable iba system enables the user to understand and manage the growing technological complexity of automated processes and mechatronic systems.

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▲ **Configuring measuring signals and troubleshooting without interrupting the process:** The Request technology provides the user of the ibaPDA measured value acquisition system with important information from the Bachmann M1 automation system. This enables troubleshooting during the ongoing production process.

involved. For this, ibaAG offers the Request technology. The jointly developed Request interface for the Bachmann M1 automation system enabled both technology partners to now implement a successful solution for Achenbach. The M1 address books enable the measured values to be selected in the I/O configurator of the iba measuring system via their symbolic names. An agent module configured on the Bachmann M1 system receives the measuring request and outputs the required measuring signals in the correct cycle via Profibus. The measuring system receives this measured data with the ibaBM-DP Profibus module, records it as measuring signals and transfers it to the ibaPDA.

»The benefits of the Request technology are obvious,« a delighted Thomas Schmidt says: »We can now fully configure the measuring signals of the automation as required during rolling operation. This is a clear benefit, particularly when troubleshooting in our plants, which operate continuously.« The ibaPDA measurement value acquisition system also stores the mea-

sured values from the Bachmann controller as measuring files or in the ibaHD server. The iba-Analyzer is used to evaluate this data further.

Successful partnership

For Achenbach the new development results in a genuine increase in productivity. »We are now able to select in the iba system which variables are to be transferred in which transmission cycle from the controller to the data acquisition system. This is not only really practical but saves us a lot of time,« Thomas Schmidt sums up.

For Bachmann and iba the project continues: »We are currently implementing further options for connecting the Bachmann M1 system to the iba data acquisition system,« Dipl. Ing. Marc Frochte, key account manager for industry at Bachmann electronic, describes future plans. »A Profinet link to the ibaBM-PN enables synchronization and band width to be further improved, and a UDP connection enables the request function for flexible data acquisition – even without the use of additional hardware.«