

# PRECAST

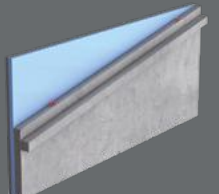
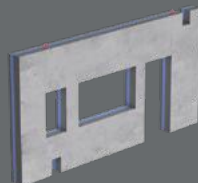
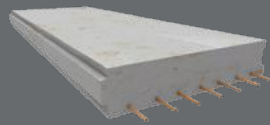
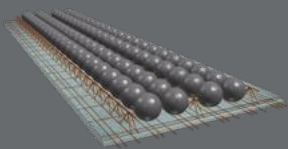
A NEMETSCHKE COMPANY

## SOFTWARE engineering



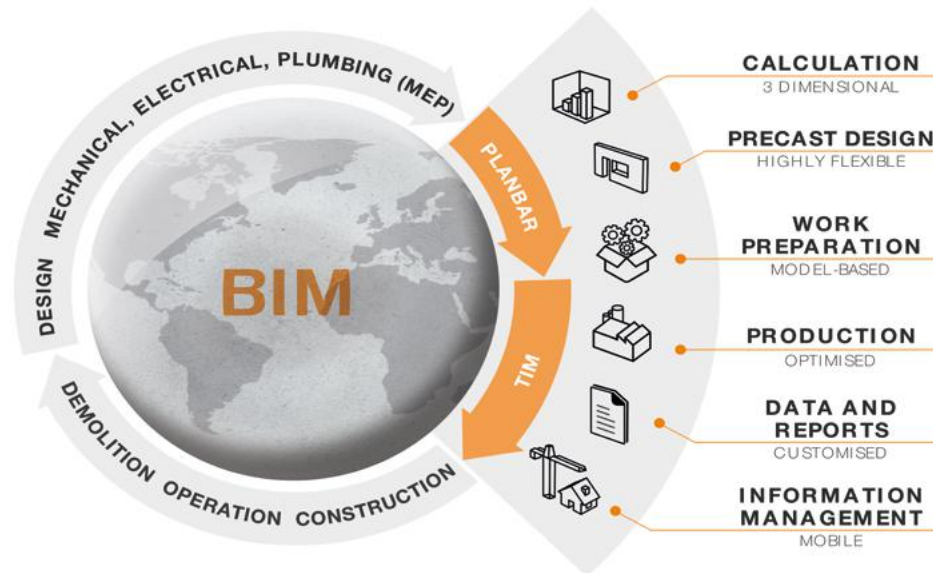
**T**ECHNICAL   **I**NFORMATION  
INTEGRATION   **M**ANAGER

Building Information Modelling for Industrialised Construction



## OPEN BIM -

### Integrated Planning with PLANBAR and TIM



With our integrated planning solutions, we put you in a situation of being able to fulfil your requirements over the entire value chain with the highest quality and efficiency.



**As a globally active solution provider for the precast parts industry, we support you, from the first cost estimate to the planning and right up to production and assembly.**

Therefore, our solutions play a crucial role in the entire BIM process.

We offer automation and the highest efficiency with serial production and provide flexible, high-performance functions for the planning and production of demanding and complex precast parts.

#### Our service portfolio:

- **SalesManager:** Our solution for model-based quantity and mass calculation on the basis of PLANBAR - all without CAD knowledge.
- **PLANBAR:** The Precast Design Tool, which supports you optimally with precast parts planning in any complexity.
- **TIM:** The Technical Information Manager, which sustainably optimises your processes as an information and integration platform.
- **mTIM:** The TIM app, which makes the building model mobile.

#### Technical Information Manager

Increasingly complex building projects worldwide require new and more modern working methods, in order to build sustainable and cost-effectively, on the one hand, while avoiding building defects, on the other hand.

While errors in the planning phase are still relatively easy to rectify, incorrectly delivered precast parts are the “worst case scenario” in building progress.

With TIM, we are providing you with a software solution, which improves the planning and information area in your precast parts company.

As an integration platform, TIM links different IT systems and thereby ensures quick and smooth-running data interchange - also across several locations or company boundaries.

Therefore, TIM integrates seamlessly into the openBIM process.

#### TIM Features

- Import from PLANBAR and other data sources
- Visualisation of the model in 3D
- Management of the process
- Administration of plans
- Simulation of delivery, production and assembly processes
- Planning of manual production
- Stacking of elements in 3D
- Generation of reports
- Generation of data for production and settlement
- Integration platform between ERP, control systems, PLANBAR and other CAD systems

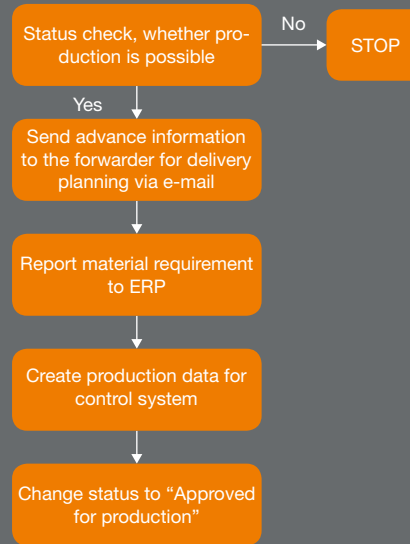
# PROCESS MANAGEMENT

## INFORMATIVE



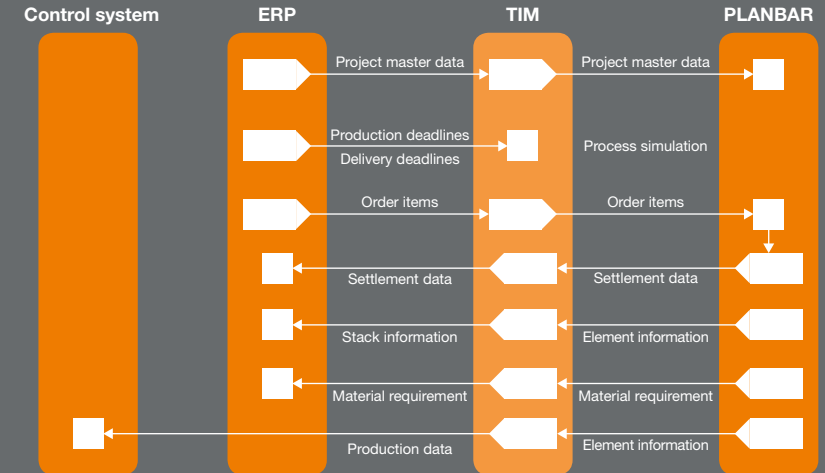
Entire process chains can be formed, in order to realise even complex scenarios.

Take advantage of the diverse possibilities. We will be pleased to develop an optimum process concept with you.



# INTEGRATION PLATFORM

## COMPREHENSIVE



TIM naturally also generates IFC files and is therefore the ideal data supplier for all BIM applications.

**Concrete precast parts are subject to a planning, production, delivery and assembly process.**

The **integrated status management** visualises the respective current status for each element and thereby informs work preparation, production, sales, project management and management about the process progress of the building project in a simple way.

For this, the **freely configurable system for status administration** offers the option to precisely map your customised work process for precast part elements.

The process can be influenced by:

- the **manual change** of a user,
- a **function call** by the user, which influences the status (e.g. the user places an element on a stack, after this, the status of the element is automatically set to "stacked"),
- an **external system** (e.g. a control system can set the status of an element to "produced", the ERP system to the "invoiced" status),
- a **change in mTIM** (mobile TIM solution).

**In many cases, complex processes require cooperation between various IT systems.**

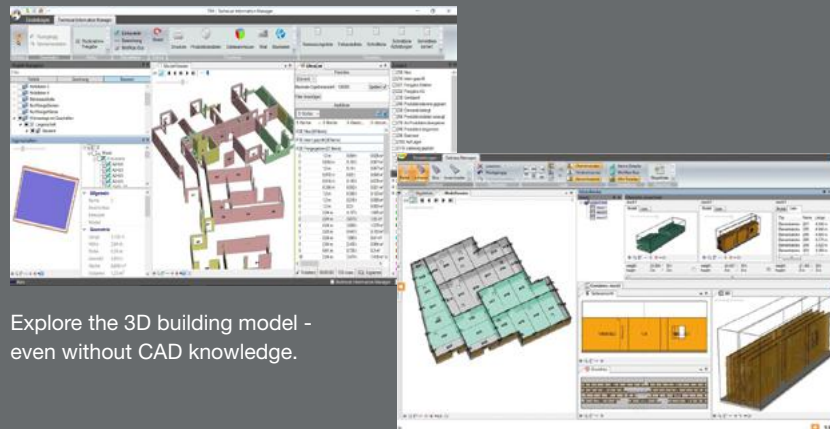
As an **integration platform**, TIM is able to exchange information between ERP, CAD and production systems in a transparent manner. Send the **project master data** from the ERP to TIM. TIM then makes these data available in PLANBAR. This way the maintenance effort is concentrated in one place and thereby minimised.

Take the **production and delivery dates** out of the ERP and simulate the process in the assembler.

Generate information about the **material requirement** for the ERP promptly and automatically on the basis of the current CAD data, in order to prevent material-related production failures.

Send the order positions of a project to TIM. TIM provides this information to PLANBAR, so that each engineer is precisely informed about which element types are ordered. During the course of this, the ERP system can also provide the **settlement information**. PLANBAR automatically calculates the exact values on the basis of this information and TIM then makes them available to the ERP.

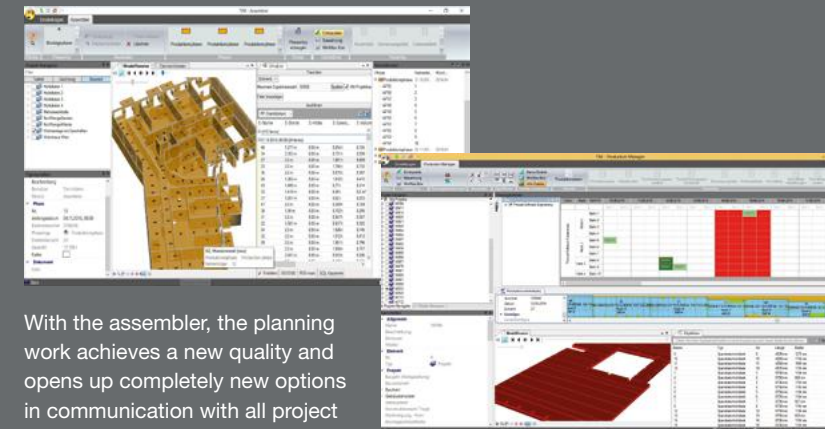
## WORK PREPARATION MODEL - BASED



Explore the 3D building model - even without CAD knowledge.

Stack your elements in 3D with the Delivery Manager.

## PROCESS AND PRODUCTION OPTIMISED



With the assembler, the planning work achieves a new quality and opens up completely new options in communication with all project participants.

The Production Manager is the ideal planning tool for stationary production.

**In the project overview, you receive a list of all available projects, which have been imported by PLANBAR or an appropriate data source.**

After the selection of a project or a part of it - the building structure of the project helps you with your orientation - you can explore the 3D building model and retrieve information about every precast part, geometry of installation parts right up to reinforcement and the element plans.

The **integrated plan management** also provides you with all further plans with precast parts from the CAD (e.g. installation plans, formwork plans). Send these for approval using the integrated e-mail function and automatically change the

status of the elements, if necessary.

The **Delivery Manager Module** offers you the option of performing the **stacking of the elements in 3D**. Plan your virtual transport racks directly from the 3D model or the list of elements. During stacking, TIM automatically checks whether it is still possible due to their freely definable conditions. In case of conflicts, you will automatically be warned.

You can generate **report, production and settlement data** easily and quickly with the **Report and Production Data Manager**.

**In the assembler, every project can be classified as production, delivery and assembly phase.**

Allocate fixed deadlines and receive a perfectly coordinated construction schedule. In a simple way, you can then allocate the precast parts from the 3D model to the various phases. If necessary, it is possible to pass on the phases with the deadlines and the allocation of the elements to external systems (e.g. ERP).

Using the 3D simulation, you can now check the order and chronological sequence of your project.

For precast parts operations with stationary production plants, the **Production Manager** is the perfect tool for optimised production planning.

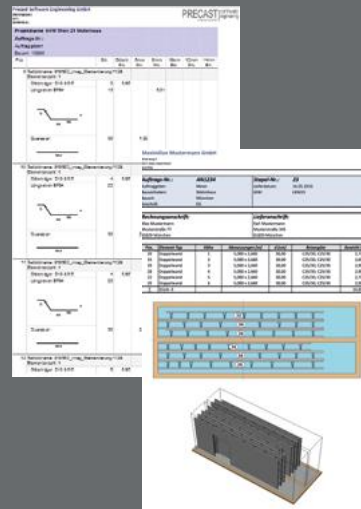
Plan your production on the basis of the 3D model and in consideration of the stack information and/or the process planning from the assembler. Any conflicts are already notified during the configuration.

For a detailed assessment of the production options, you can show installation parts and reinforcement in the 3D model on the pallet. Then, generate all of the necessary data, plans and lists for production.

## DATA AND REPORTS CUSTOMISED



The Report and Production Data Manager enables the issuing of lists in various formats.



We will be pleased to adapt these to your individual requirements or add further reports.

## INFORMATION MANAGEMENT MOBILE



### mTIM - Mobile digital assembly planning



The full overview: With mTIM, all relevant data can be retrieved at anytime and anywhere, as well as capturing additional information.

**The Report and Production Data Manager is the ideal platform for data generation.**

Whether it is UNI, PXML, ADS, BVBS or IFC, TIM generates these data according to your individual requirements.

The process can either be automated or integrated into a complex work process.

Some examples:

- After each import of new CAD data into TIM, an updated PXML file is sent to the ERP system, where the material comparison takes place.
- Depending on the production site, different file formats are generated for the control

systems used there. Every company has clear ideas about how lists and reports should look in its organisation.

The Report and Production Data Manager provides you with the following **standard reports**, inter alia:

- Individual panel setup
- Measurement sheet
- Measurement list
- Fixtures list
- Cutting list
- Stack list
- ADS list

**mTIM offers the ideal information platform on the building site and when you are on the go for project management, sales and site managers.**

This makes building site meetings easy and complex issues can be conveniently discussed on the basis of the 3D model.

Do you want to know where a delivered element is situated in the building model? Simply scan the **barcode** of the element and the mTIM will immediately show you the position of the element. This way, errors are avoided and the assembly process can be organised in a quick and transparent manner.

However, mTIM does not only provide information, it also helps to document the assembly progress.

Change the status of an element to “assembled” on the building site and this information will be transferred automatically to TIM. Therefore, nothing more stands in the way of invoicing.

Replace your assembly report with a mTIM report and synchronize these data with your company systems.

# T H I N K F U T U R E

**„As for the future,  
your task is not to foresee it but to enable it.”**

Antoine de Saint-Exupéry, French author and aviator (1900 – 1944)

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