



中国建材

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Sinoma International Engineering Co., Ltd.

Application of BIM technology in project execution



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1 **BIM in Brief**

2 **BIM 7D Safety Management**

3 **BIM 3D Collaborative Design**

4 **BIM 4D Schedule Management**

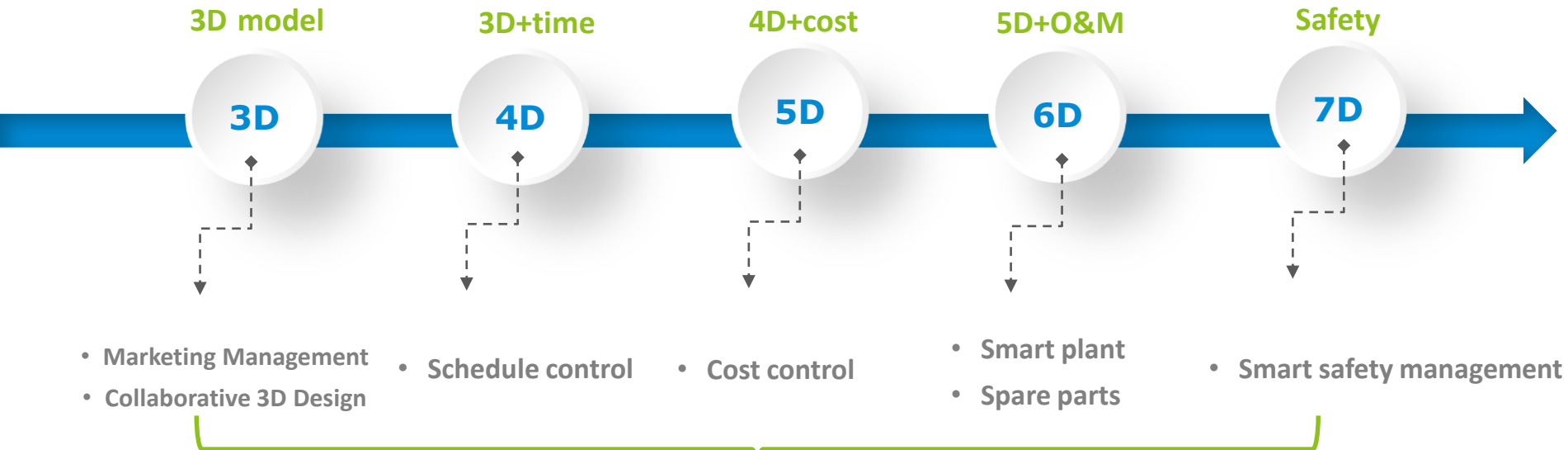
5 **BIM 5D Cost Control**

6 **BIM 6D O&M**



BIM in Brief

Manages the **W**hole **L**ife of the **P**roject



- **Covers the full business chain of Project**
- **Manages the whole life cycle of the project**



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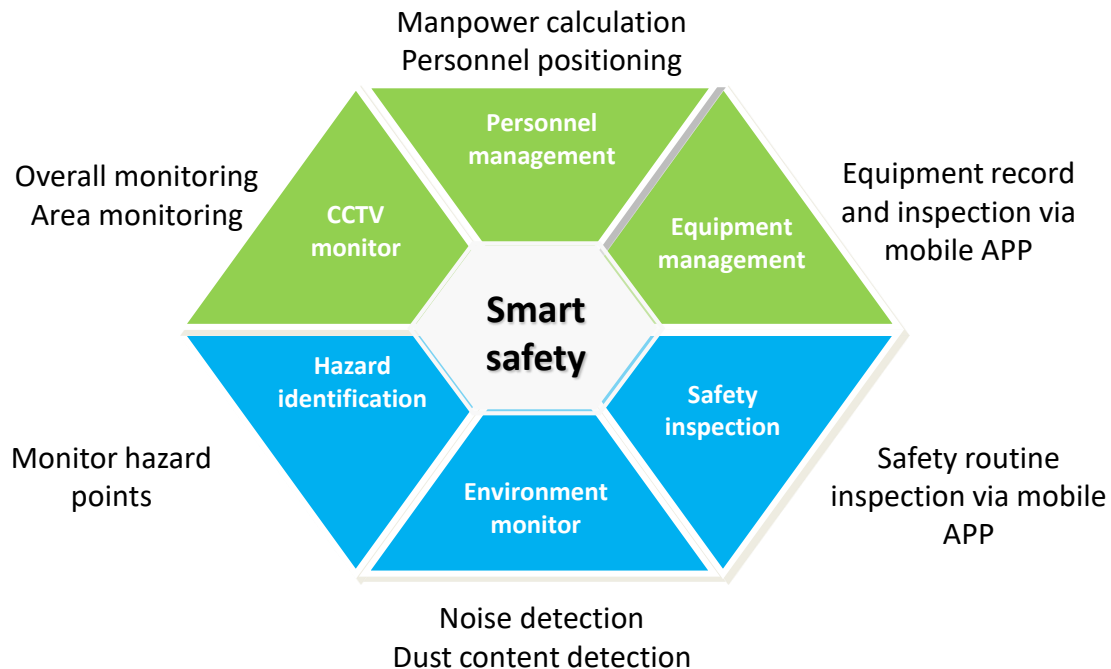
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BIM 7D Smart Safety

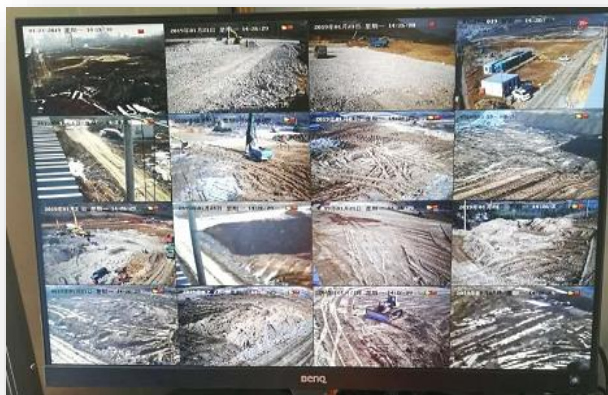
Integrate Smart Management Technical





BIM 7D Smart Safety

Integrate Smart Management Technical



CCTV



Routine inspection



Vehicle QR code



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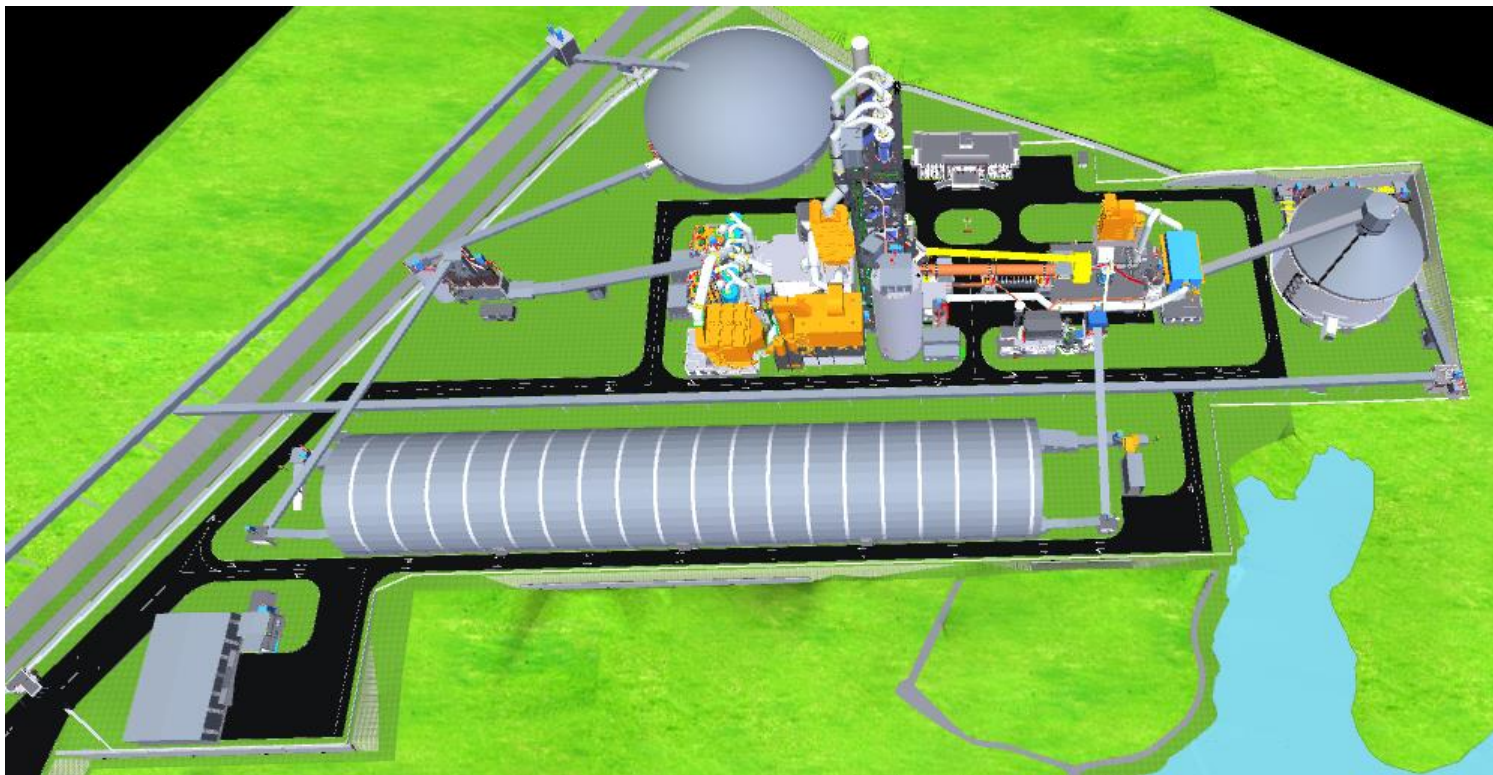


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3D COLLABORATIVE DESIGN



Tianjin cement industry design & research institute Co.,Ltd



3D COLLABORATIVE DESIGN

Simultaneously design, accurate and high efficiency

- Jointly design in **one** same model
- All designer** simultaneously work on it
- Minimize design duration
- Improve design quality and efficiency
- Accurate BOQ
- Check design stage at any time
- To be the basis of Digitalization plant



3D COLLABORATIVE DESIGN

Provide accurate BOQ in Bidding stage

01

Visualized technical solutions

02

Accurate quotation

03

Construction plan simulation





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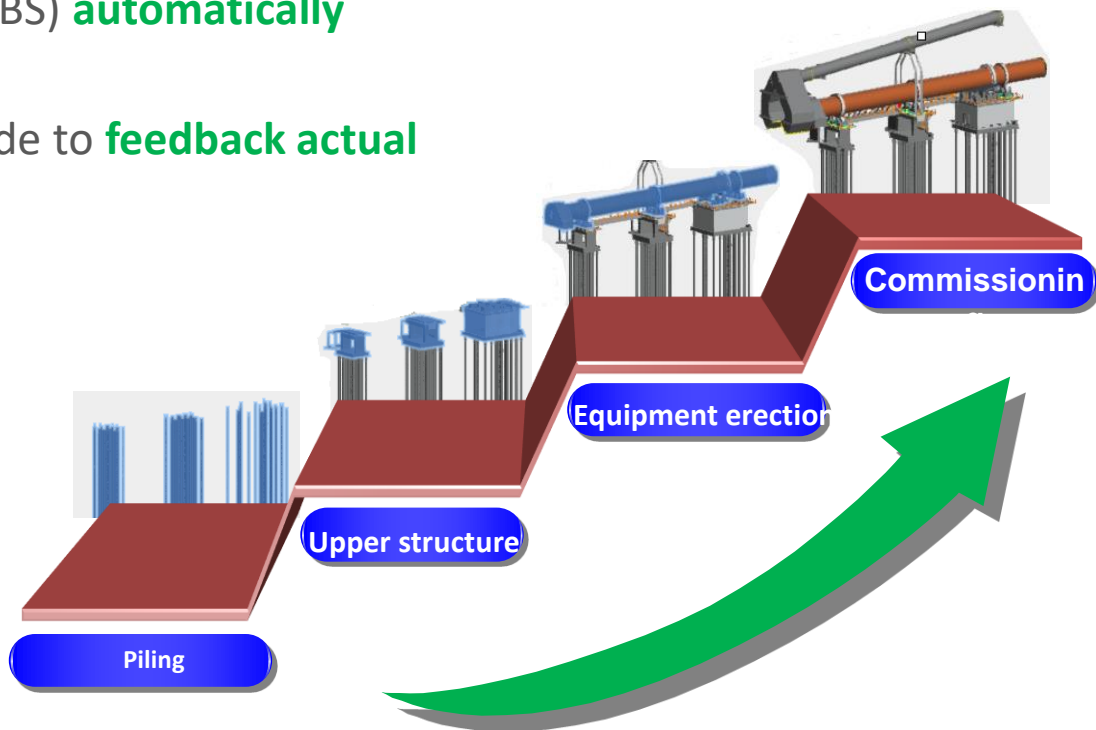
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BIM 4D schedule management

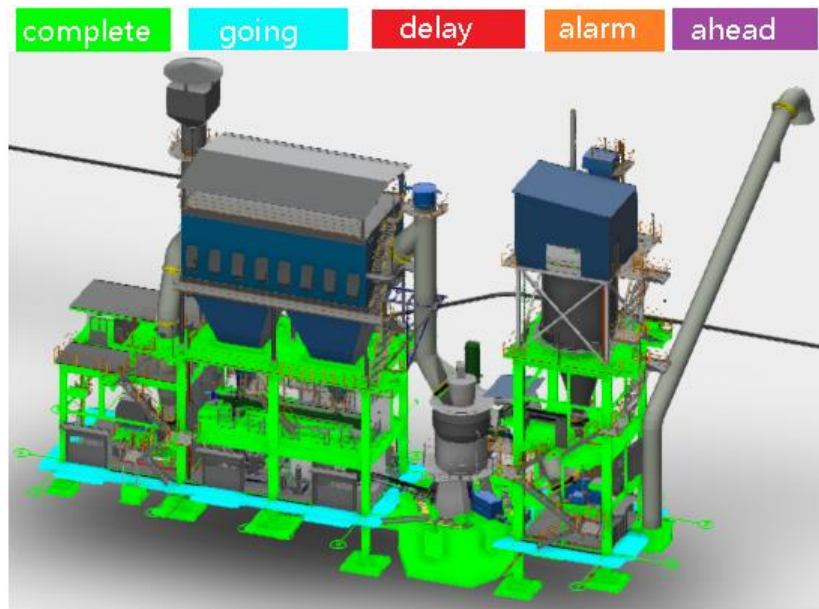
- ◆ Work Breakdown Structure(WBS) **automatically generated** by 3D model
- ◆ Use mobile APP to scan QR code to **feedback actual completion time**



BIM 4D schedule management

- To **monitor site construction** progress on BIM platform at any time any place.

- ◆ Completed
- ◆ On going
- ◆ Ahead of schedule
- ◆ Parts to be delay(Alarming)
- ◆ Behind schedule (need to catch up)



BIM 4D schedule management

- Mobile APP to Initiate **Quality Inspection**
- Mobile APP to record **Resource Consumption**



BIM 4D Progress Management

- Equipment purchase inquiry
- Equipment procurement
- Equipment manufacturing
- Equipment logistics and delivery
- Equipment on-site stock in and out
- Equipment installation and Status

Logistic tracking and inventory



BIM 4D Progress Management

Logistic tracking and inventory



Site unloading



QR code scanning



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BIM 5D Cost Control

Quantity Completion monitoring

- ◆ Automatically calculate each work task (WBS), and summarize into **Workshop/BOQ**.
- ◆ Summarize the Work Quantity of:
 - Plan to be completed
 - Actual completion



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BIM 5D Cost Control

Cost monitoring

- ◆ Set up project Price Break down list, **integrate the price into each WBS.**
- ◆ Automatically **summarize the Cost of:**
 - Plan to be completed
 - Actual completion
- ◆ Completion Quantity will be the **Evidence for Interim Payment** release.



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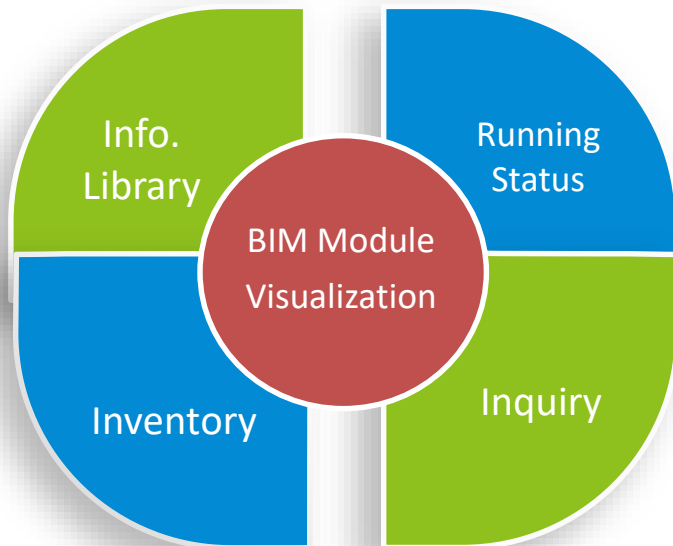
Operation & Management

Massive spare parts data via BIM platform

- For global users
- Massive spare parts information library
- Bulk purchase to reduce costs

Shared spare parts inventory

- Manage and Replace via BIM platform
- Trade-in, barter and liquidity of Inventory ;
- Reduce inventory cycles and maximize benefits



Intelligent detection, early warning

- Access intelligent monitoring data to analyze spare parts life
- Full life cycle detection and accurate judgment
- Pre-stocking spare to ensure the availability

Solutions to emergency spare parts





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Thank you

TCDRI