

2016 4th 全球政府BIM论坛

中国建筑设计研究院
建筑六十周年华诞技术论坛

第四届全球政府BIM论坛 2016 4th GOVERNMENT BIM SYMPOSIUM

主办方 Organizers

中国建筑设计研究院
China Institute of Building Standards Design & Research

中国城市规划设计研究院

全球BIM联盟
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Autodesk



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BIM的演化

The Evolution of BIM

模型内涵的变化 / model connotation

从关心模型的几何空间转向模型的语义空间

模型坐标系的变化 / model coordinate system

从几何坐标向与大地坐标系融合

模型使用者的变化 / model user

从设计院、施工单位向业主、政府管理者转移



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模型创造价值的变化 / model value

从针对单个项目、企业转向整个产业链、社会综合效益



淘宝大数据的形成

The formation of the Taobao big data

	数据来源	处理手段	数据应用
第一阶段	用户信息、商品信息、交易数据、收藏数据等	统计 数据	总用户数/活跃用户数，交易笔数/金额，支付宝笔数/金额
第二阶段	日志数据（记录用户的行为数据，cookie、app）	推荐 算法	通过获取用户的浏览行为、购买行为，给用户推荐他可能感兴趣的物品
第三阶段	其他领域数据（身份信息、位置信息等）	数据 标准	获取买家兴趣、爱好，精准营销
第四阶段	自身积累的多维数据	人工 智能	数据增值服务（秒级计算买家信用）



建筑业4.0的实施步骤

The roadmap of the Construction 4.0

Step1:

产业互联网的
共用基础
设施建设
Infrastructure of
the Industrial
Internet

Step2: 基于业主的合作伙伴协同平台
Partner collaboration platform based on owner

Step3: 基于BIM的资产管理与交易平台
Asset management and trading platform

Step4: 基于模块化的智能建造
Module based intelligent construction

应用
倒逼
转型
升级

建筑行业互联网化
Internet-based Construction Industry





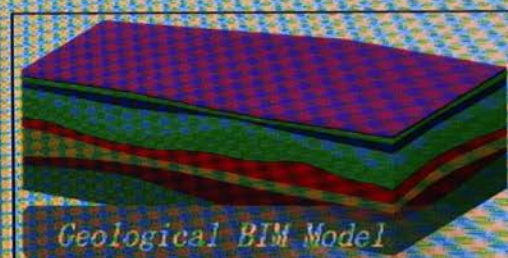
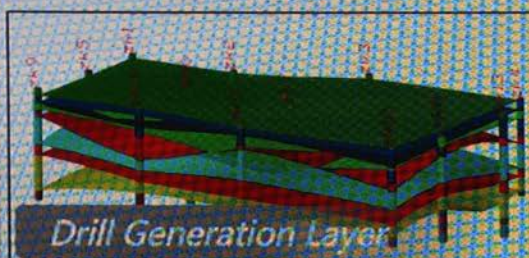
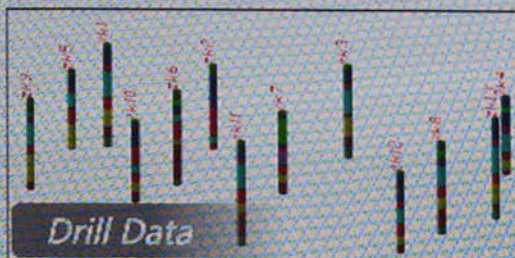
中铁第一勘察设计院集团有限公司
FSDI2016

Railway Engineering & BIM Technology

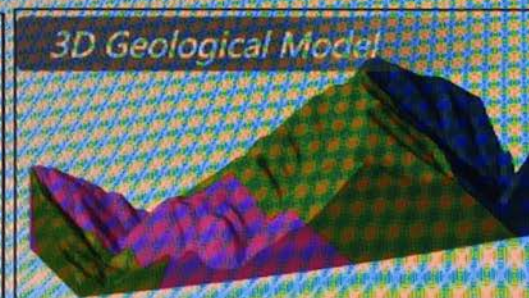
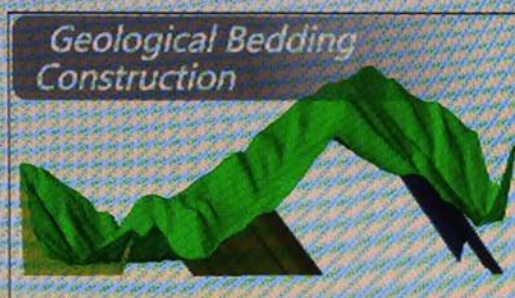
铁道工程与BIM技术

BIM Key Technology in Railway Construction - Geology

Drill Model



Cross-section Model



Application of BIM Technology in Railway Engineering
BIM技术在铁道工程中的应用探索

I. BIM Application Flow of the Bureau of Public Works



2. "Owner-initiated and market-oriented"

Fully advance the application of
BIMTechnology in Shenzhen's construction
industry.

Already advanced from the application in design
industry to the application of all crews, professions,
procedures, and systems.

----as design and construction's technical

4. 12 Keywords for BIM Application of Bureau of Public Works

Top-level

Design
Guidelines

Standard
Specification

Refined
Management

Multi-project
Implementation

Collaborative
Work

Increase
Efficiency

Quality
Modeling

Progress
Management

Mobile
Applications

Concentrated
Storage

Remote
Applications



BIM Application Principle

**Modeling as Standard , Quality as
Hallmark , Management as Emphasis**

Use the
modeling
information
as the key to
manage the
project.

Implement the
hallmark of BIM
to guarantee
construction
quality.

BIM must be
implemented
on the key
difficulties
in management.



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BIM Implementation Standard System
Basic General Specific
Standard + Standard + Standard



《BIM Implementation
Basic Standard》
《BIM Implementation
General Standard》
《BIM Implementation
Specific Standard》

(III. 4 Main Goals of BIM Application of Bureau of Public Works in 2016)

1. Conduct a full switch from partial application to comprehensive application for all crews, professions and procedures.
2. Establish a standard-, process- and evaluation- oriented BIM application model of Bureau of Public Works.
3. Establish a highly-efficient and coordinative BIM Management Platform of Bureau of Public Works.
4. Explore new project management process

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III. The combination of BIM application and **industrialization** will improve the technical level and construction quality of the construction industry, and turn off-farm workers into industrial workers.

IV. Operational applications

