



中國建築科學研究院
China Academy of Building Research

R&D of Engineering Software in National Academy

DaiLin Chen

Professor

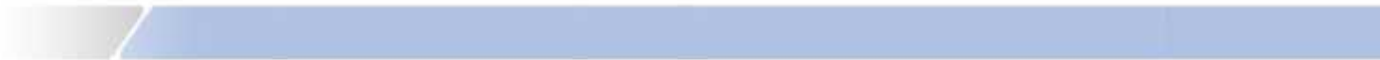
Director of institute of Building Engineering Software

China Academy of Building Research





中國建築科學研究院
China Academy of Building Research



PKDPM



中国建筑科学研究院

CHINA ACADEMY OF
BUILDING RESEARCH

建筑工程软件研究所

INSTITUTE OF
BUILDING
ENGINEERING
SOFTWARE



R&D fields

Building design CAD software

Quantity take-off and project cost analysis software

Construction technology software

Construction project management software

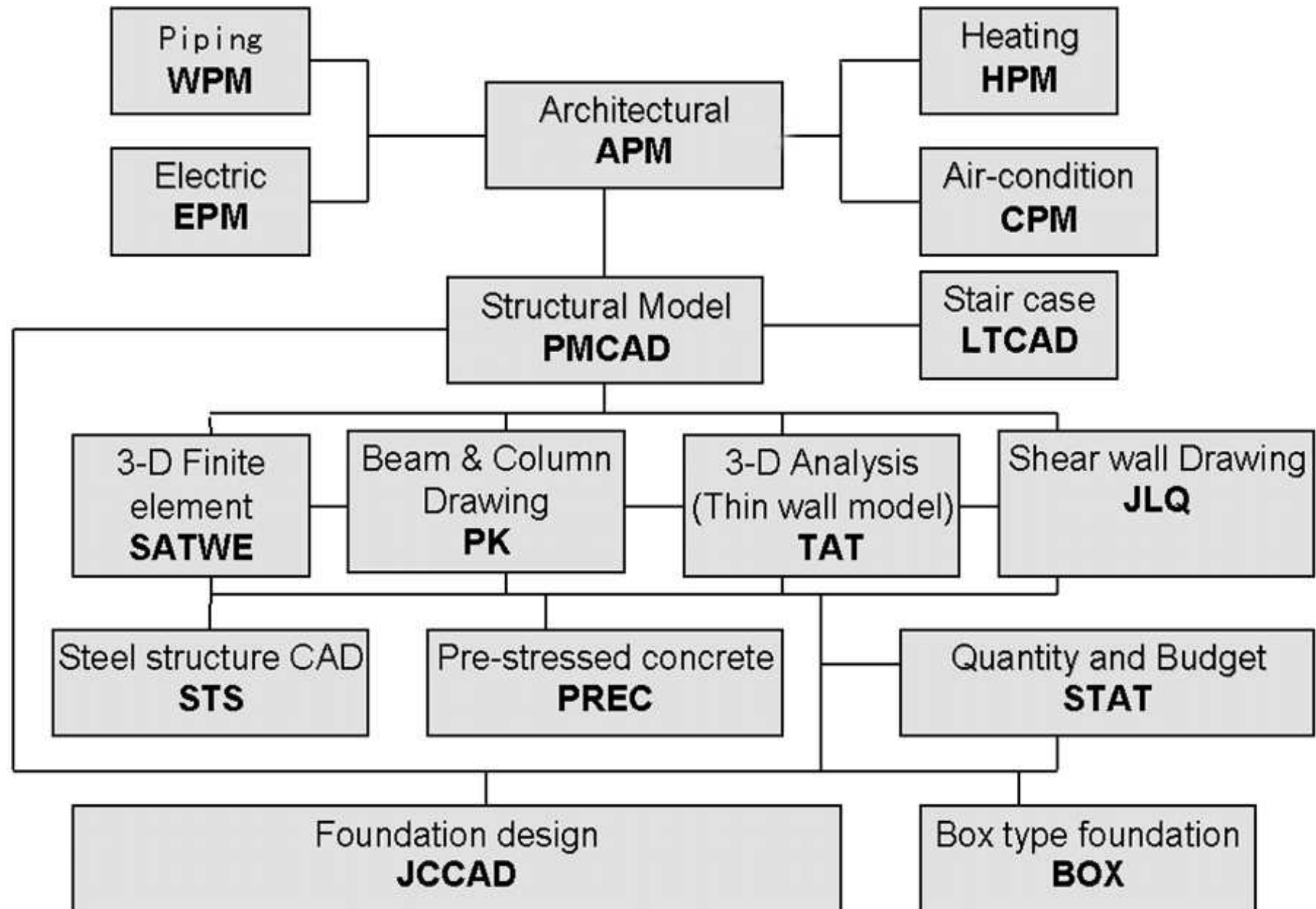
Graphics platform

MIS solutions

Most popularly used CAD system in China

- **PKPM** CAD System is a comprehensive integrated building CAD system, it is composed of a series of CAD software, such as architectural CAD software, structural CAD software, foundation CAD software, mechanical CAD software, etc.
- It is the most popularly used CAD system for building design in China. There are over 10000 users now.
- **PKPM** has made great contributions in recent 10 years in increasing design efficiency and ensuring design quality. It is highly praised by both Chinese government and design engineers

Family of PKPM CAD





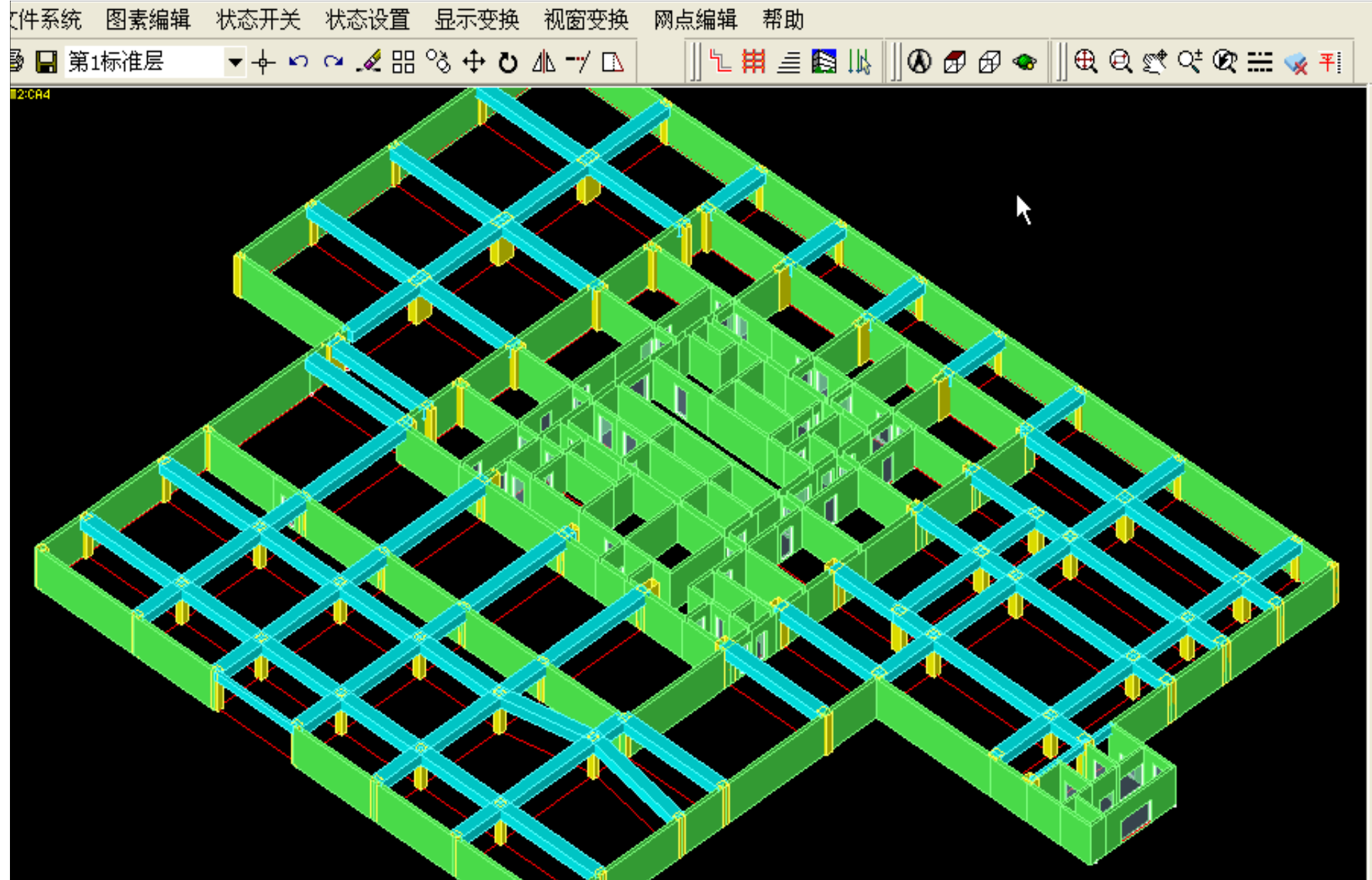
PKPM的工作流程和特点

模型输入、计算分析、施工图设计一体化接力作业

Characteristic of PKPM

Modeling、Analysis、Working Drawing
were Integrated





Modeling Interactive at storey, Load transfer & statics automatically

三位有限单元计算，剪力墙用壳单元，单元自动划分

内力计算、地震效应计算、荷载效应组合、截面配钢筋计算连续自动完成

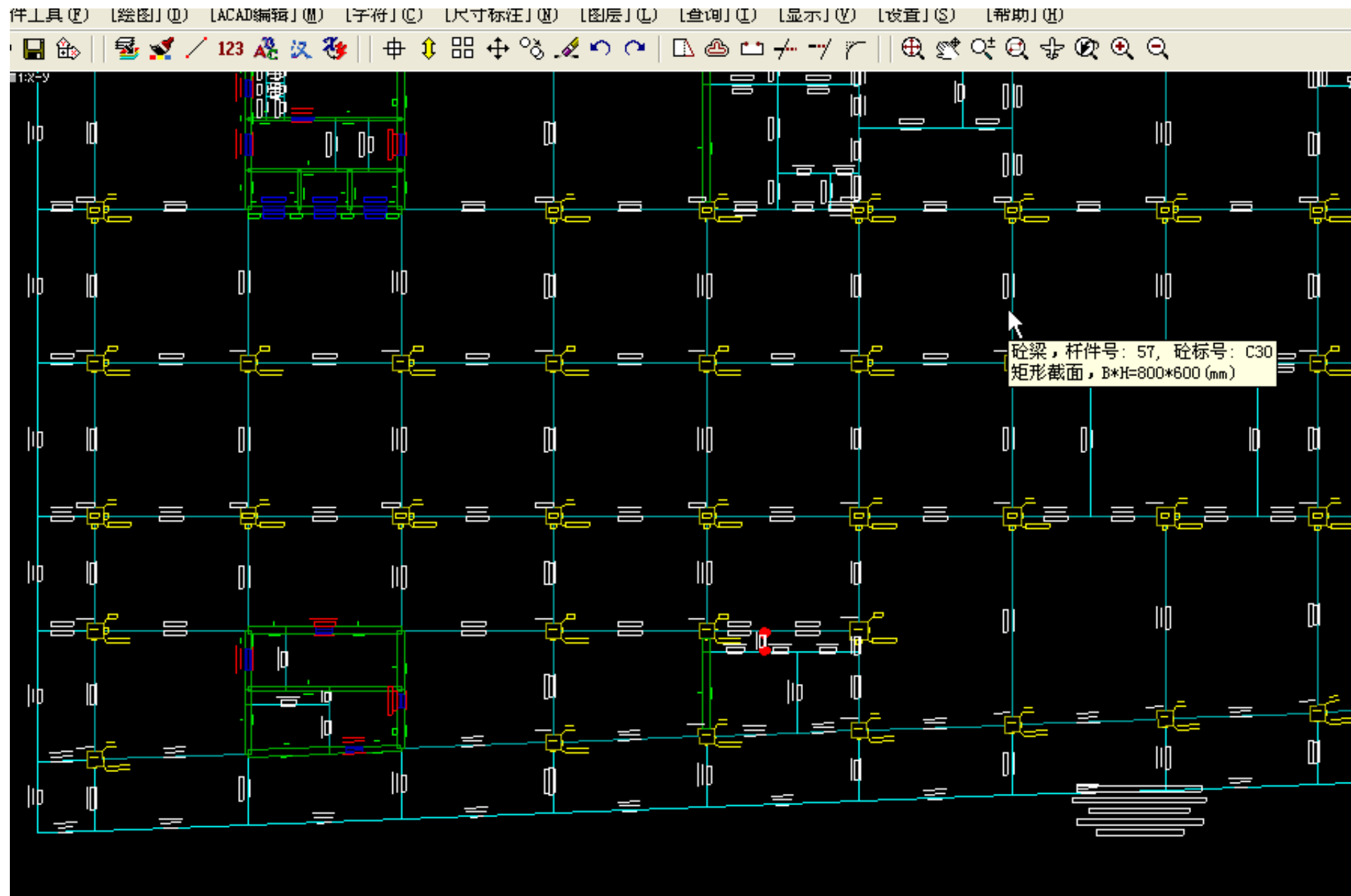
基础设计接力上部结构设计

3d element structure analysis, elements for shear wall are automatically allocated.

Innor force analysis, ,effect of earthquake, varies effects combination,

Reinforcement..., all above proceutures are proceeded automatically

Foudation design and up structure design are integrated



Result of Analysis

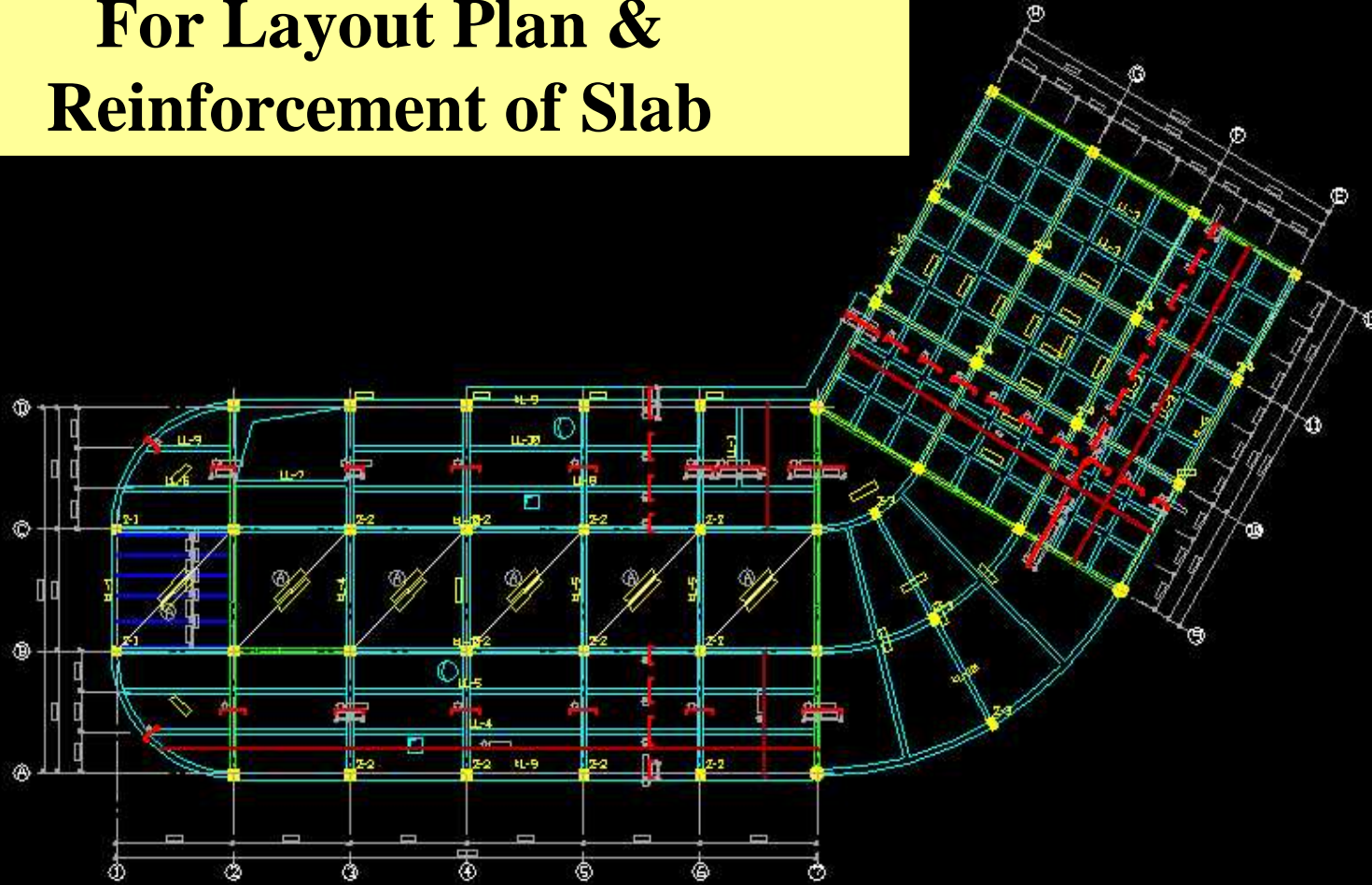


After read result of analysis,
Varies Working Drawing Auto
Generated





For Layout Plan & Reinforcement of Slab



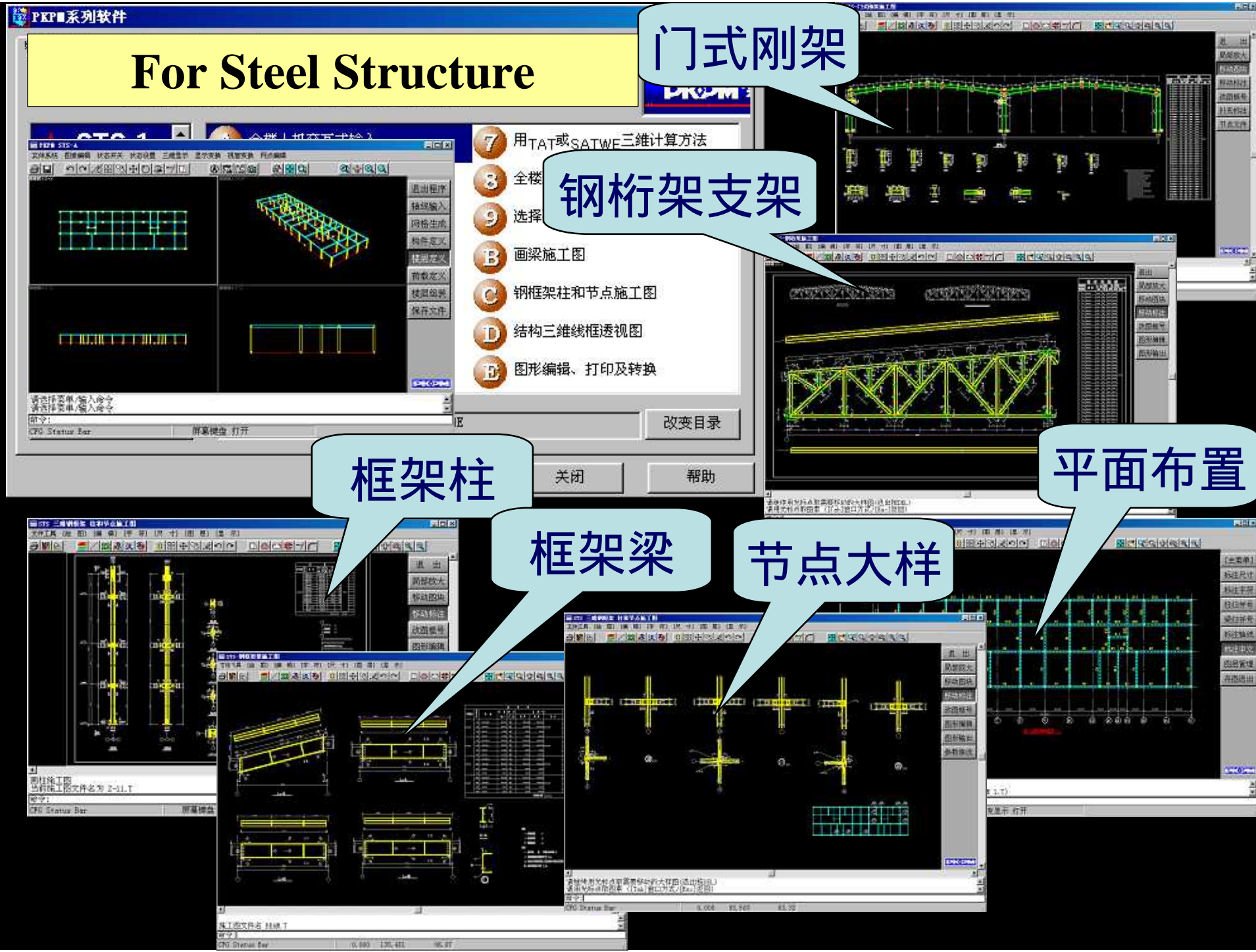
- [钢 筋]
- 自动布筋
- 逐间布筋
- 人工布筋
- 任意配筋
- 通长配筋
- 洞口配筋
- 改板钢筋
- 房间归并
- 局部放大
- UNDO
- <前菜单>



第 1层平面图 (PM 1.T)

命令:

CFG Status Bar 0.000 37.111 50115.02

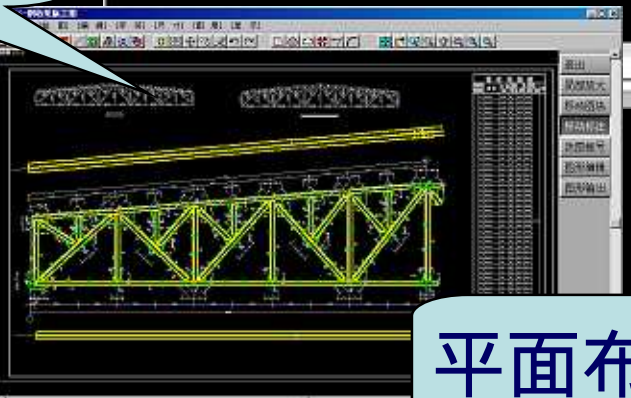
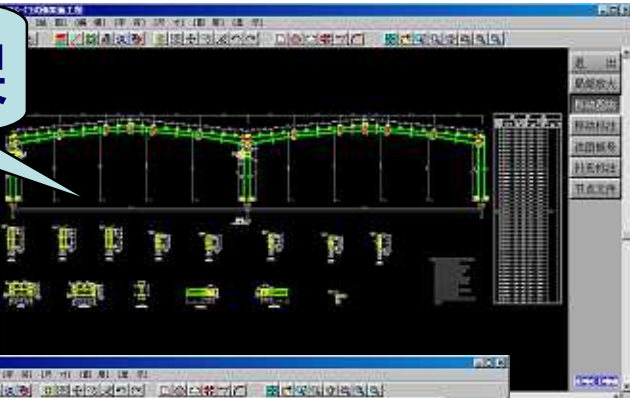


For Steel Structure

门式刚架

- 7 用TAT或SATWE三维计算方法
- 8 全楼
- 9 选择
- B 画梁施工图
- C 钢框架柱和节点施工图
- D 结构三维线框透视图
- E 图形编辑、打印及转换

钢桁架支架

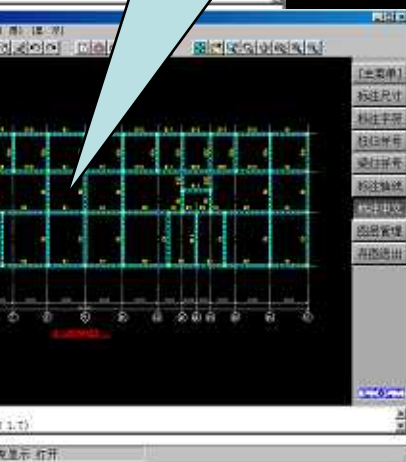
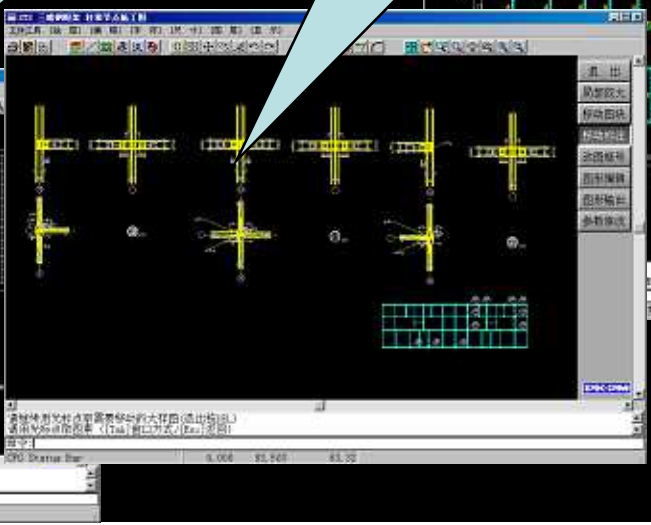
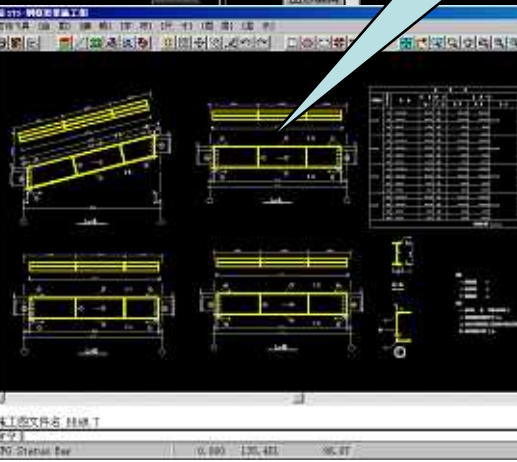
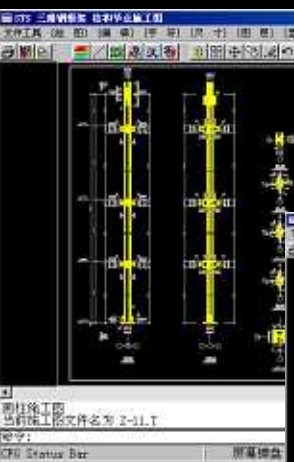


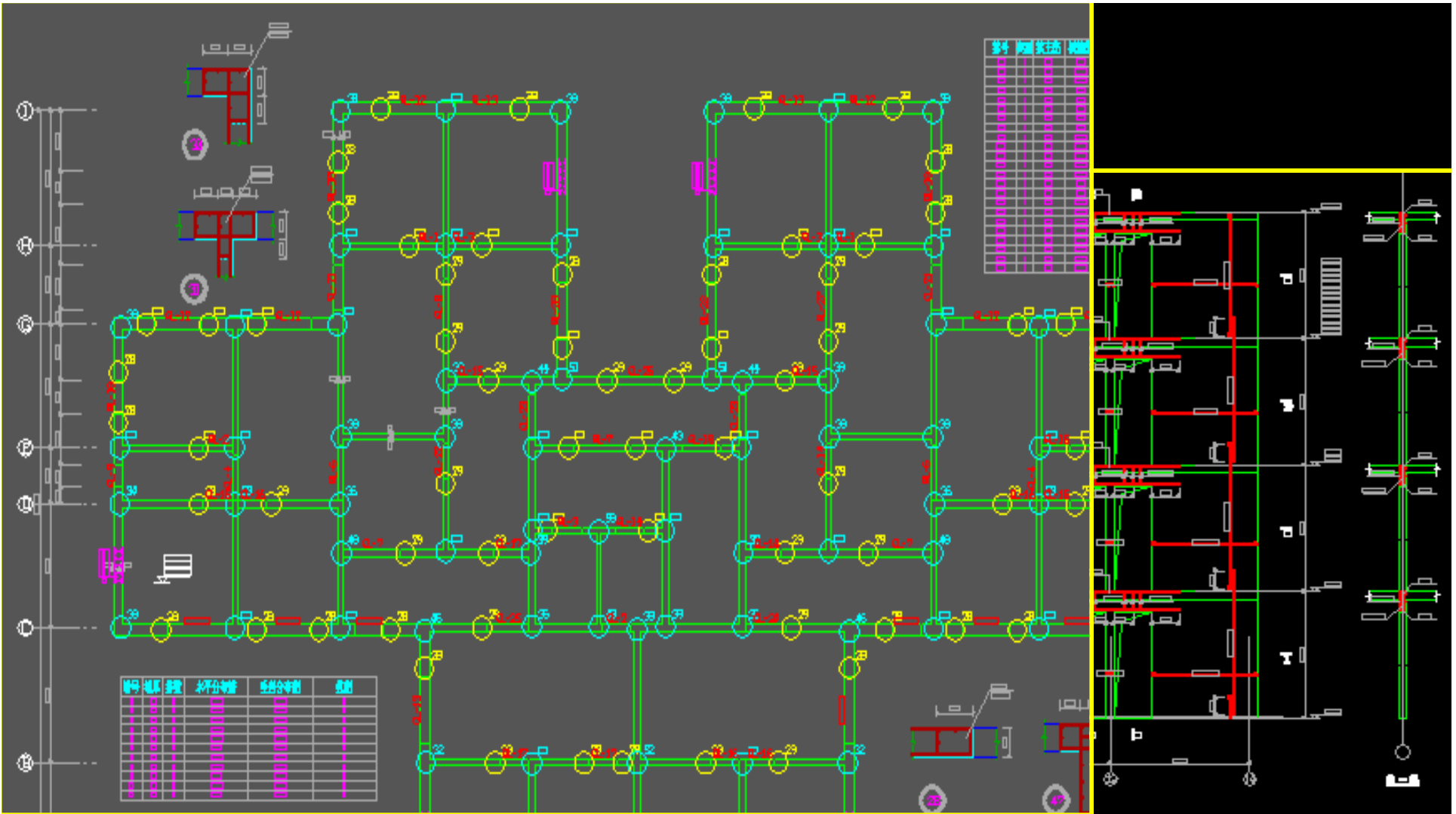
平面布置

框架柱

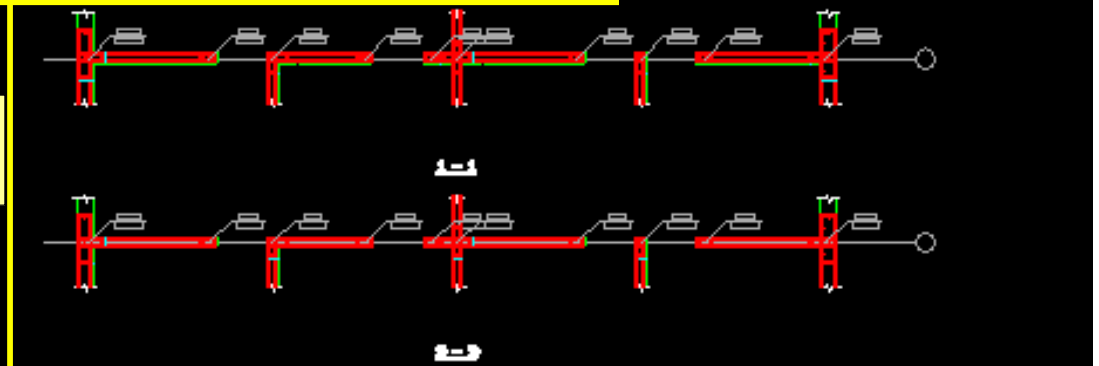
框架梁

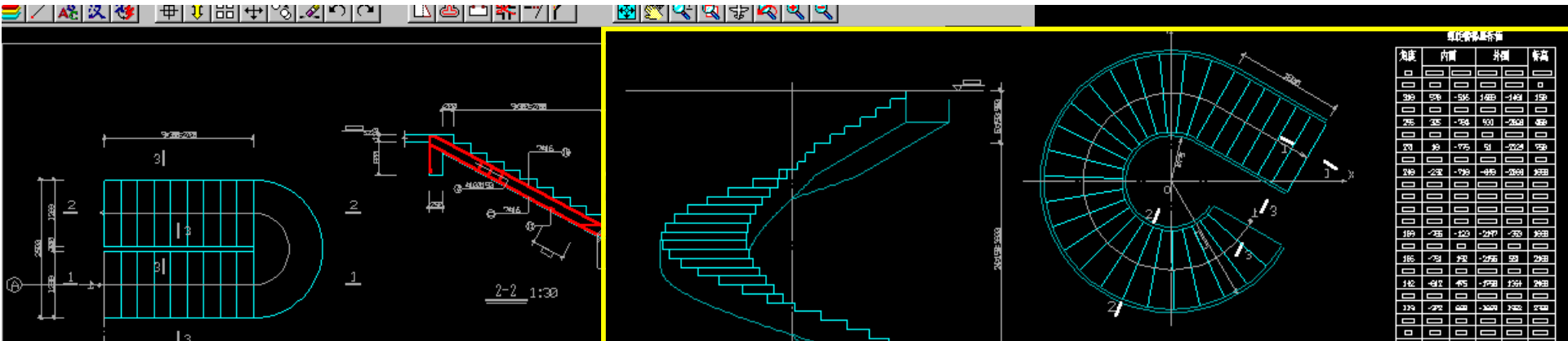
节点大样





For Shear Wall

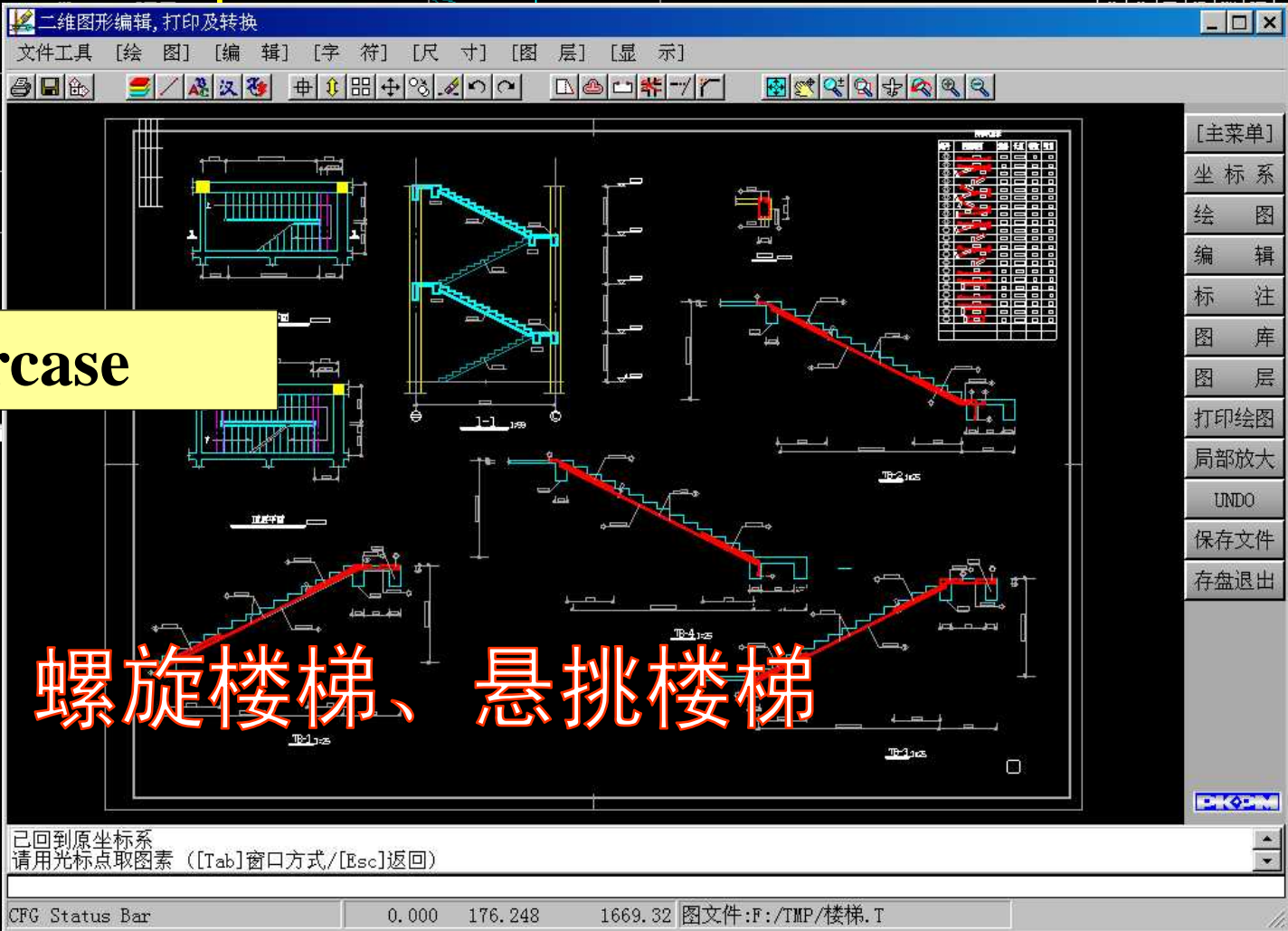




For Staircase

普通楼梯、

螺旋楼梯、悬挑楼梯





PKPM在中国建造的奥运工程等标志性建筑的应用

PKPM's Experience at Olympic Games Projects & Other Famous Projects in China

Take part in Joint Design With Chinese Standard



Shanghai World Financial Center, Shanghai

Rising in the Lujiazui financial district in Pudong, the Shanghai World Financial Center is a tower among towers. The elegant 101-story skyscraper will be (for a moment, at least) the world's tallest when completed in early 2008.

One of the biggest challenges of building tall is creating a structure that can withstand high winds. The architects devised an innovation solution to alleviate wind pressure by adding a cut-out at the building's apex. Not only does the open area help reduce the building's sway but it also will be home to the world's highest outdoor observation deck -- a 100th-floor vista that will take vertigo to new heights.





Shanghai World Finance Center

101 floors

巨型柱 Mega-Column

巨型支撑 Mega-Bracing

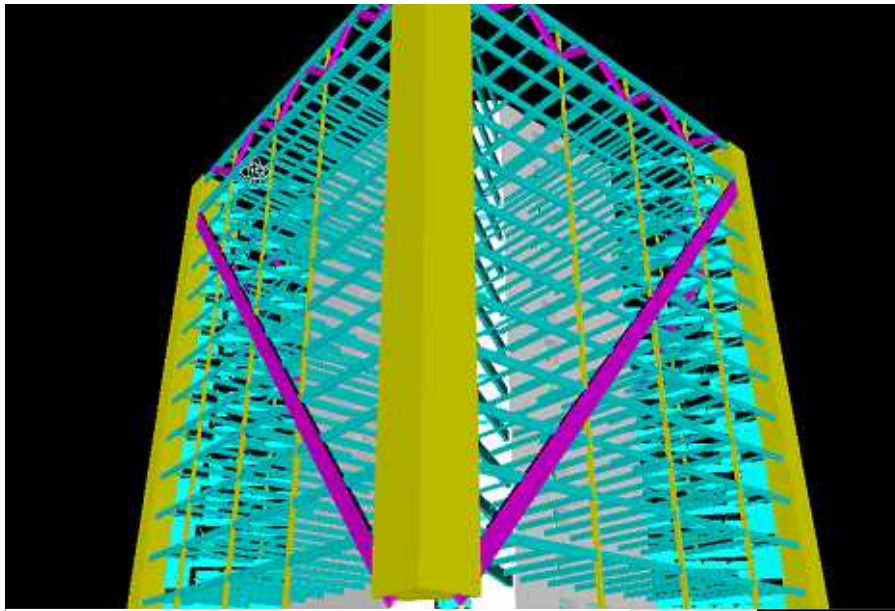
带状桁架 Belt Truss

伸臂桁架 Outrigger Truss

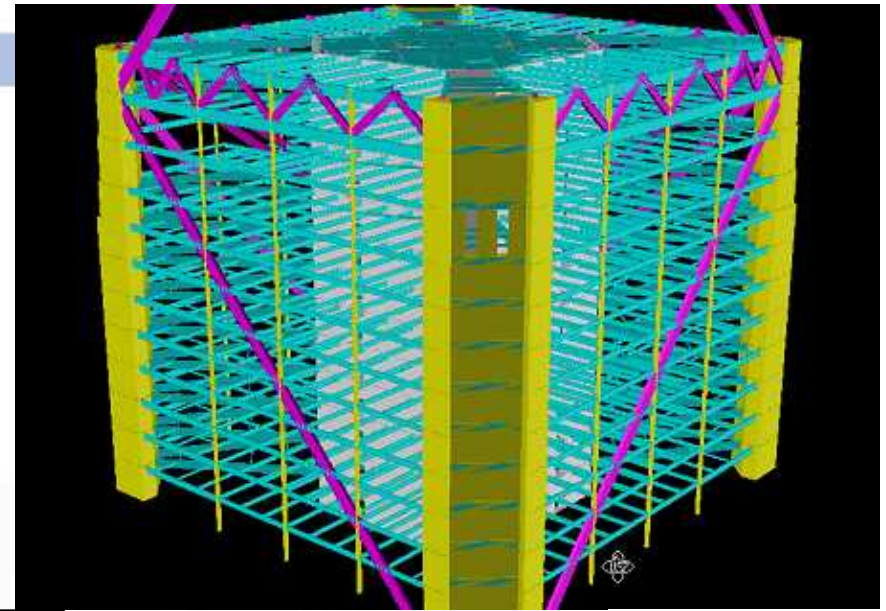
转换桁架 Transfer Truss

核心筒墙内的钢支撑

Steel Bracing of Core-Tube-Wall

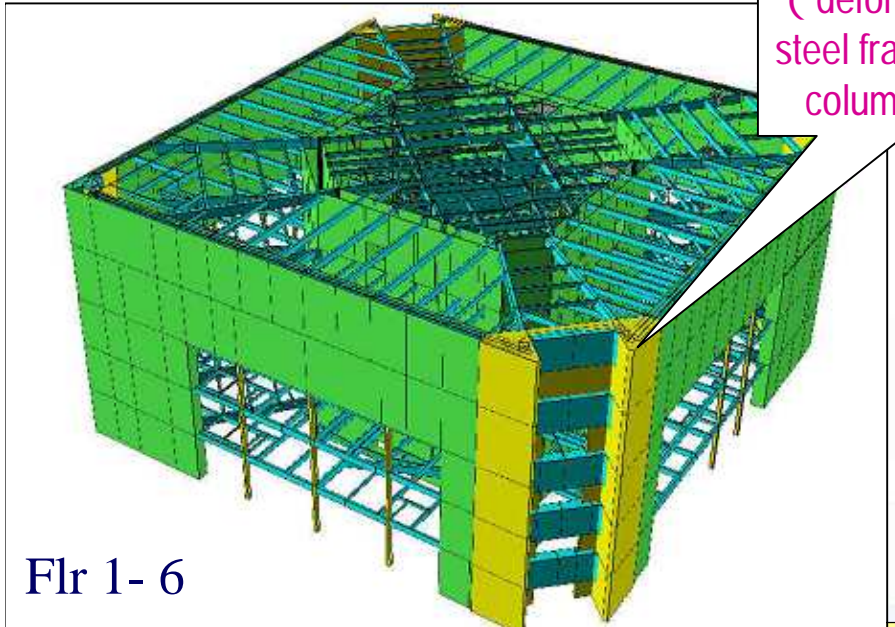


Mega-Bracing (Flr 7-18)

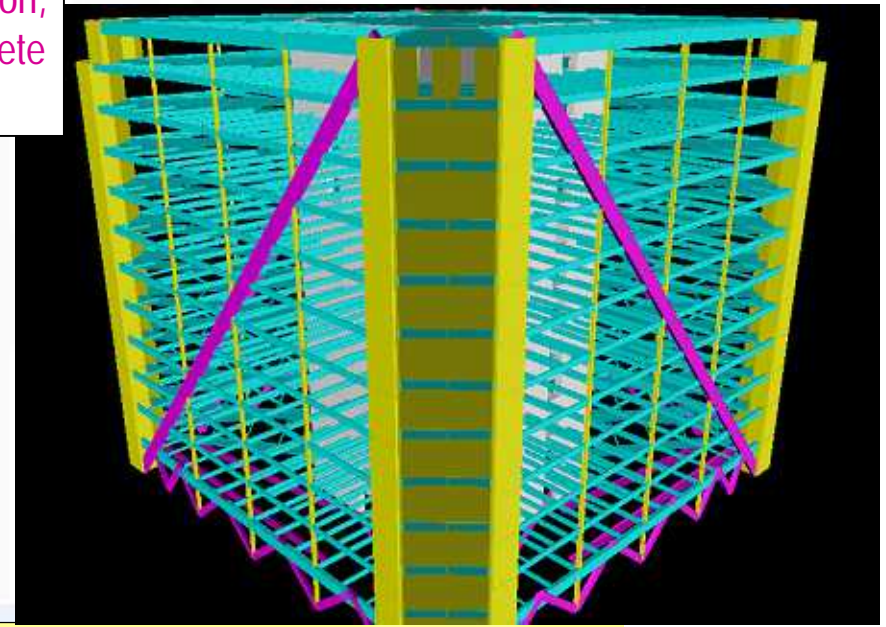


Flr 19 - 30

Mega-column
(deformed section,
steel frame concrete
column inside)



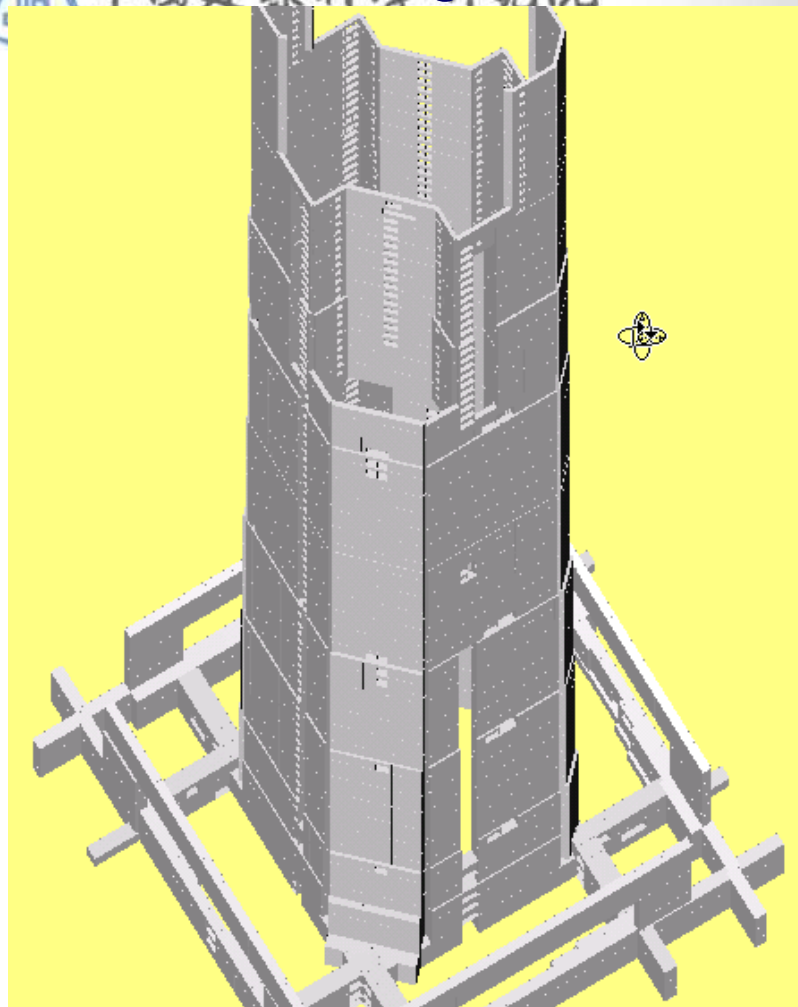
Flr 1- 6



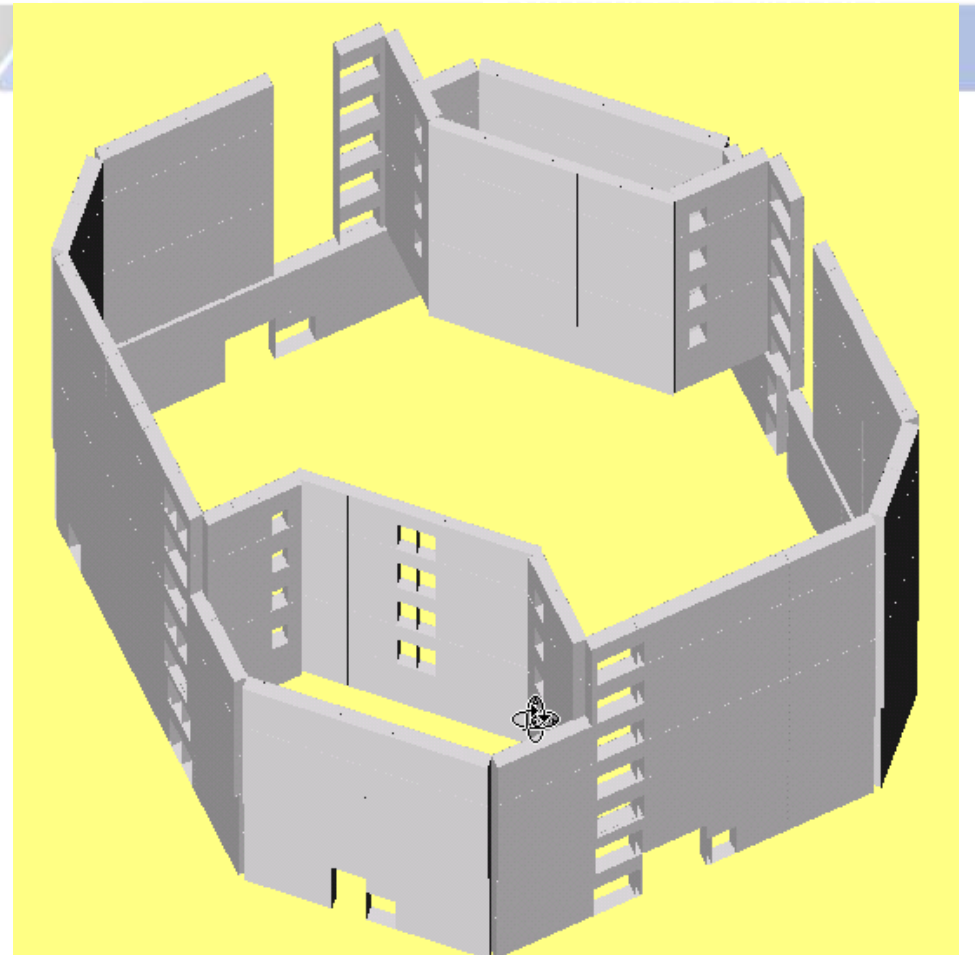
Flr 31- 41

separate modeling, then assemble

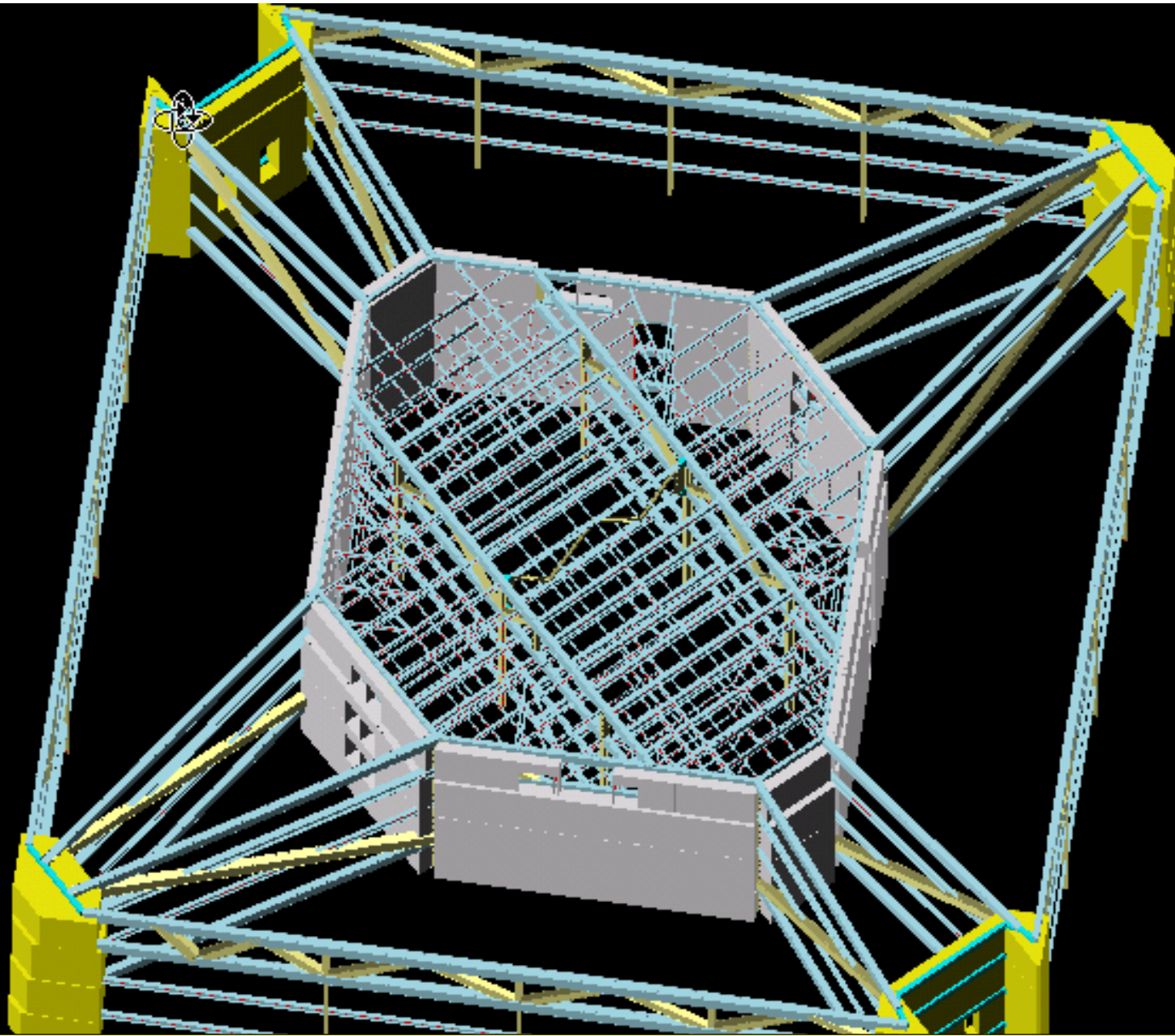
Core-Tube System



Shear walls as structural core (-3 to 91 sty)



Change in shear wall profile at intermediate floors (57 to 63 sty)



Outrigger Truss and Transfer Truss connect to Core-Tube and column

First period: 6.68 second, close to exam result of model in laboratory

计算第一周期：6.68秒，与试验结果接近

Transmitting to the foundation weight: 428441Ton, the same computation result with overseas software.

传到基础自重：428441吨，与国外软件计算结果一致

Olympic Stadium, Beijing

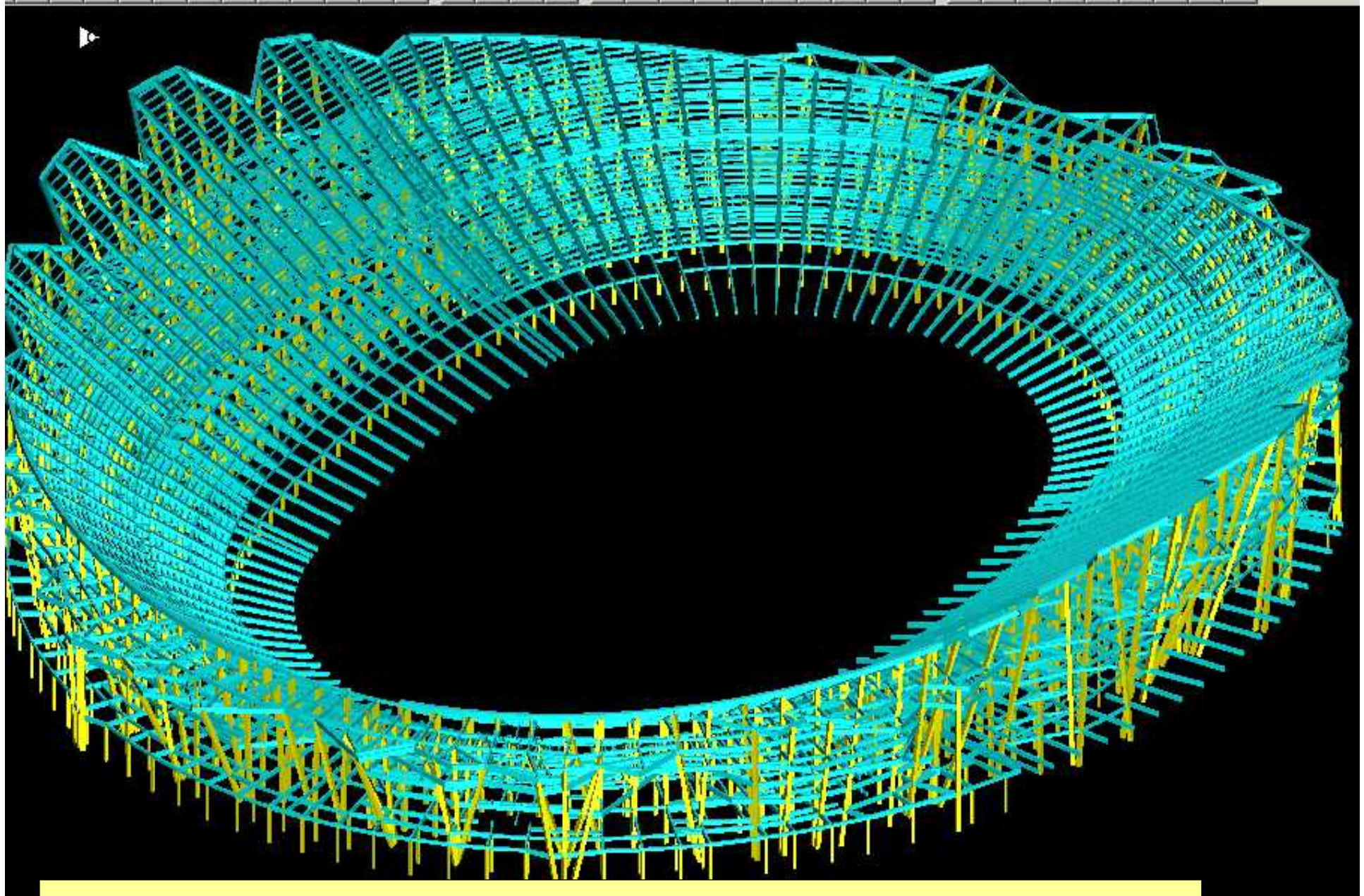
Sports stadiums have long followed the enduring design of one of the original wonders of the world, Rome's Coliseum. Herzog & de Meuron's National Stadium in Beijing is an attempt to rethink the classic sports-arena layout for more ecologically correct times.

The Swiss architects (of Tate Modern fame) wanted to provide natural

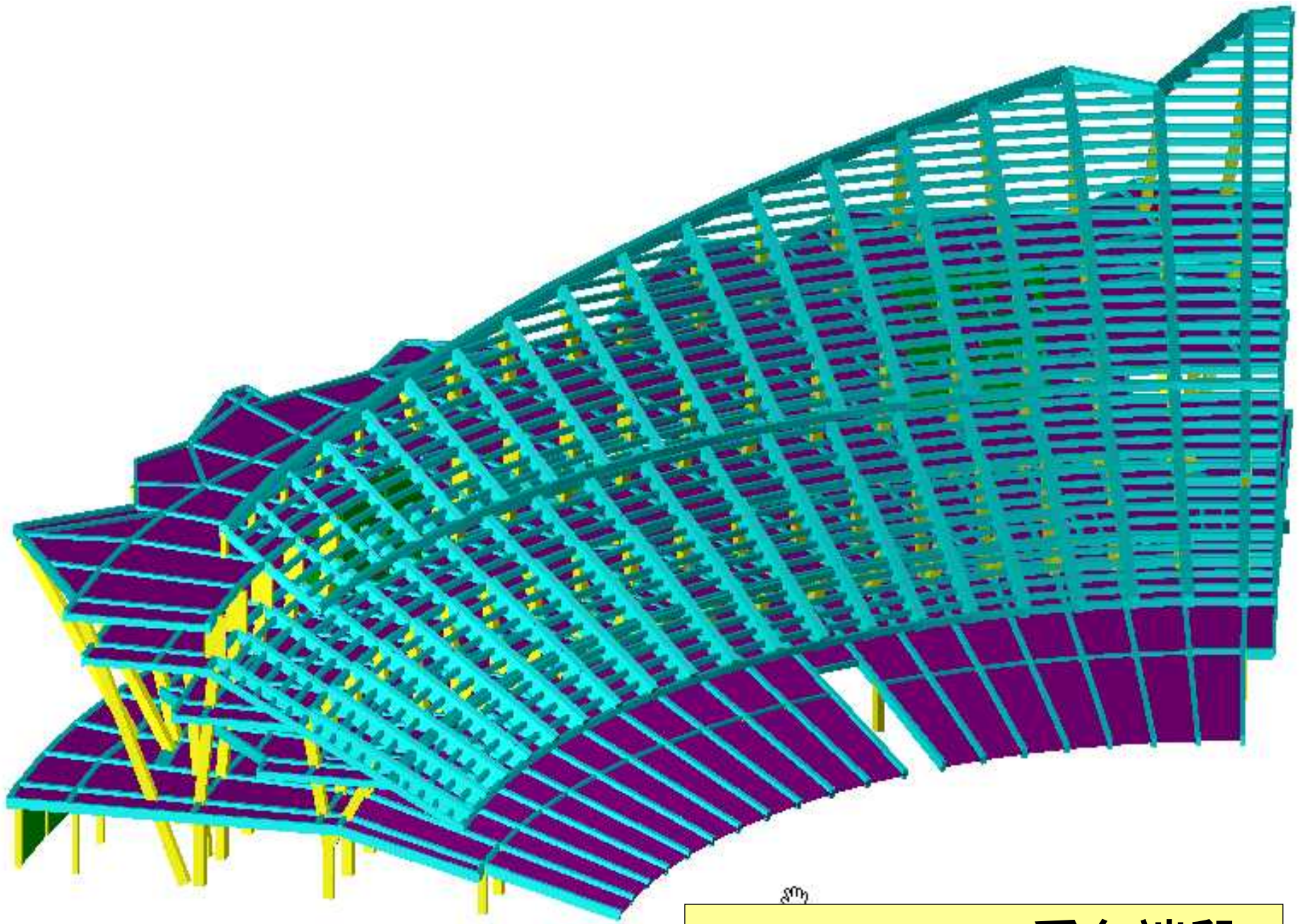
ventilation for the 91,000-seat structure -- perhaps the largest "eco-friendly" sports stadium designed to date. To achieve this, they set out to create a building that could function without a strictly enclosed shell, yet also provide constant shelter for the audience and athletes alike.

To solve these design problems, they looked to nature for inspiration. The stadium's outer grid resembles a bird's nest constructed of delicately placed branches and twigs. Each discrete space within the facility, from restrooms to restaurants, is constructed as an independent unit within the outer lattice -- making it possible to encase the entire complex with an open grid that allows for natural air circulation. The architects also incorporated a layer of translucent membrane to fill any gaps in the lacy exterior.





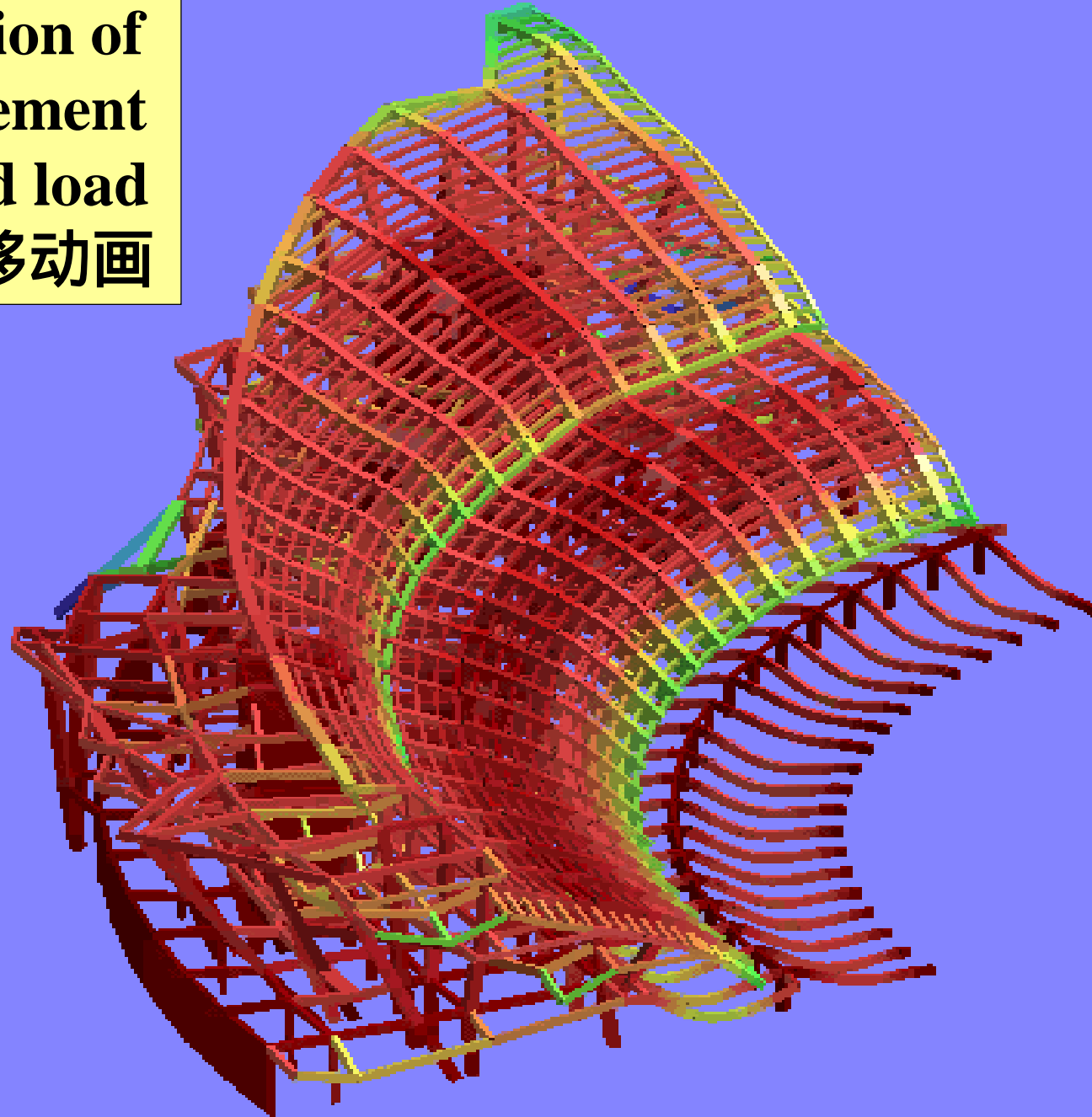
Main stadium of Olympic Games 2008

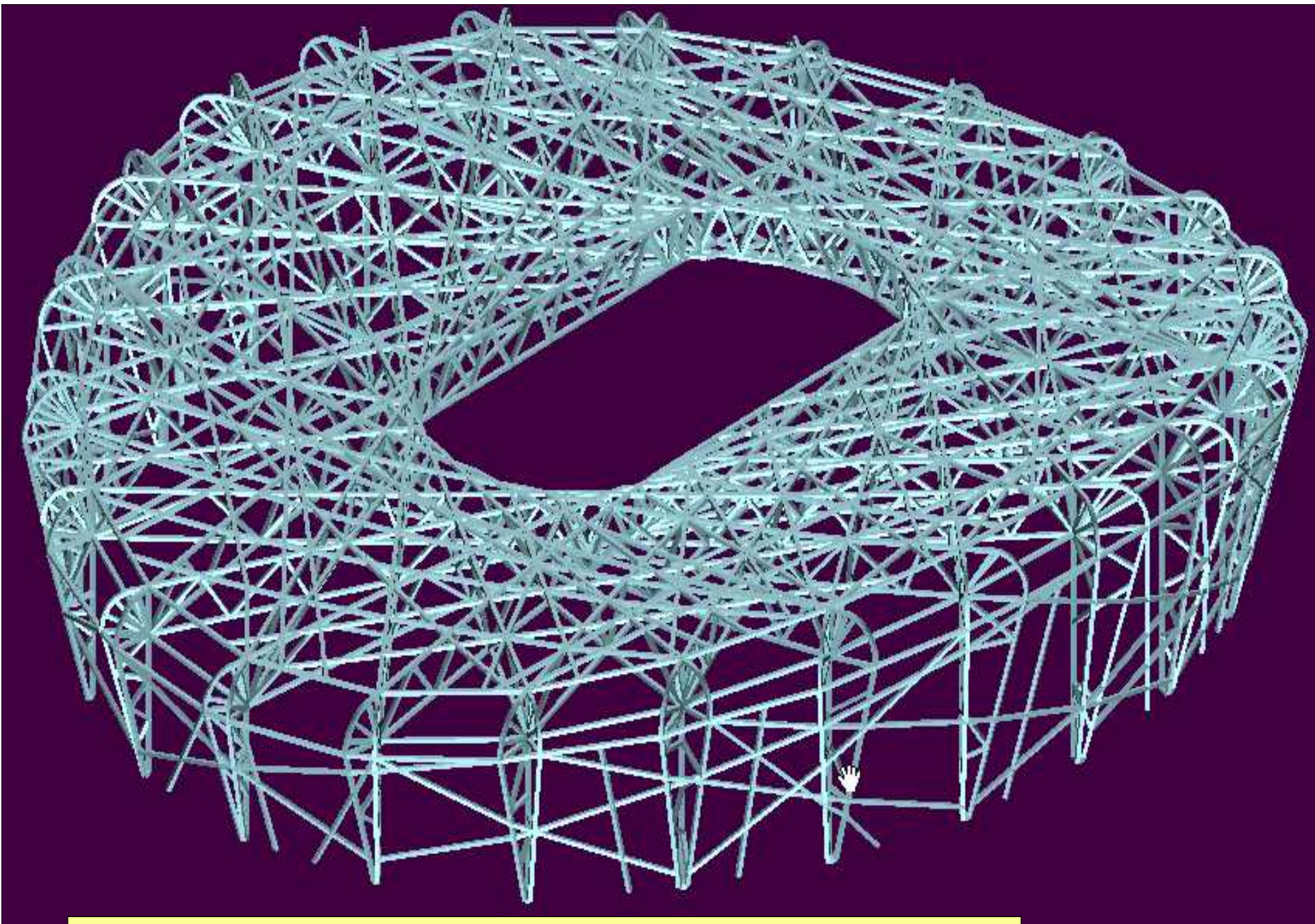


End of stand 看台端段



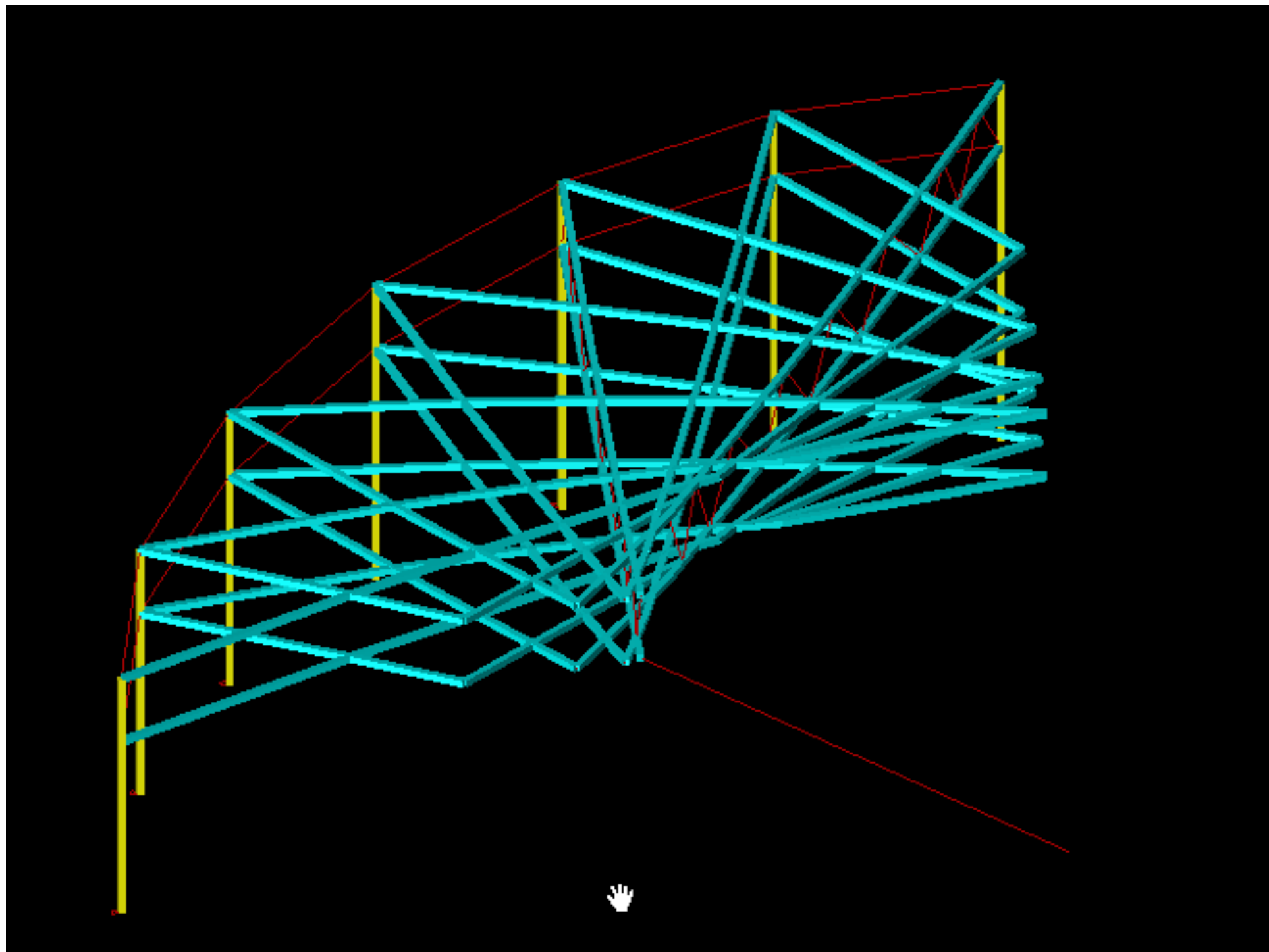
**Animation of
Displacement
for Dead load
恒载位移动画**

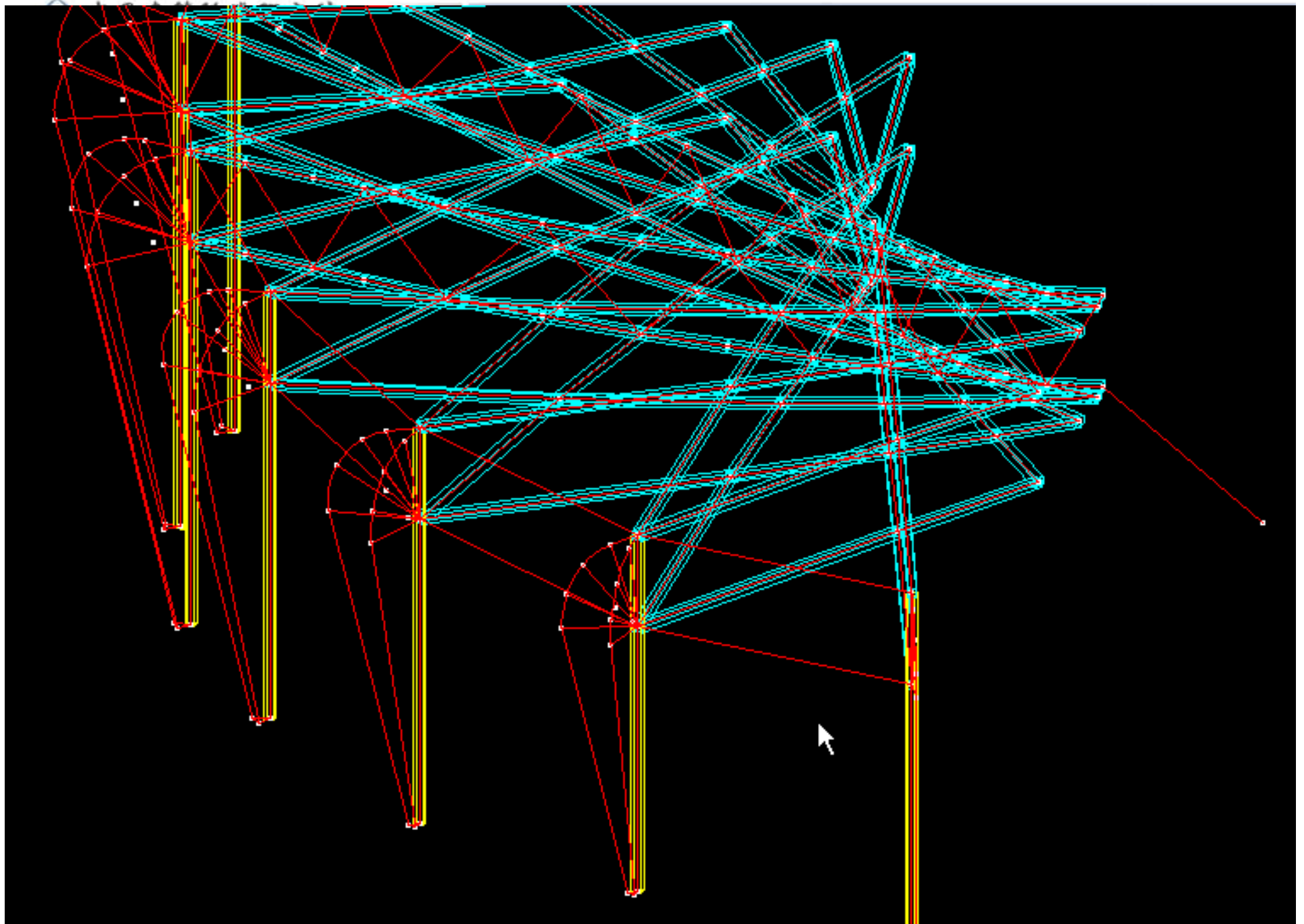


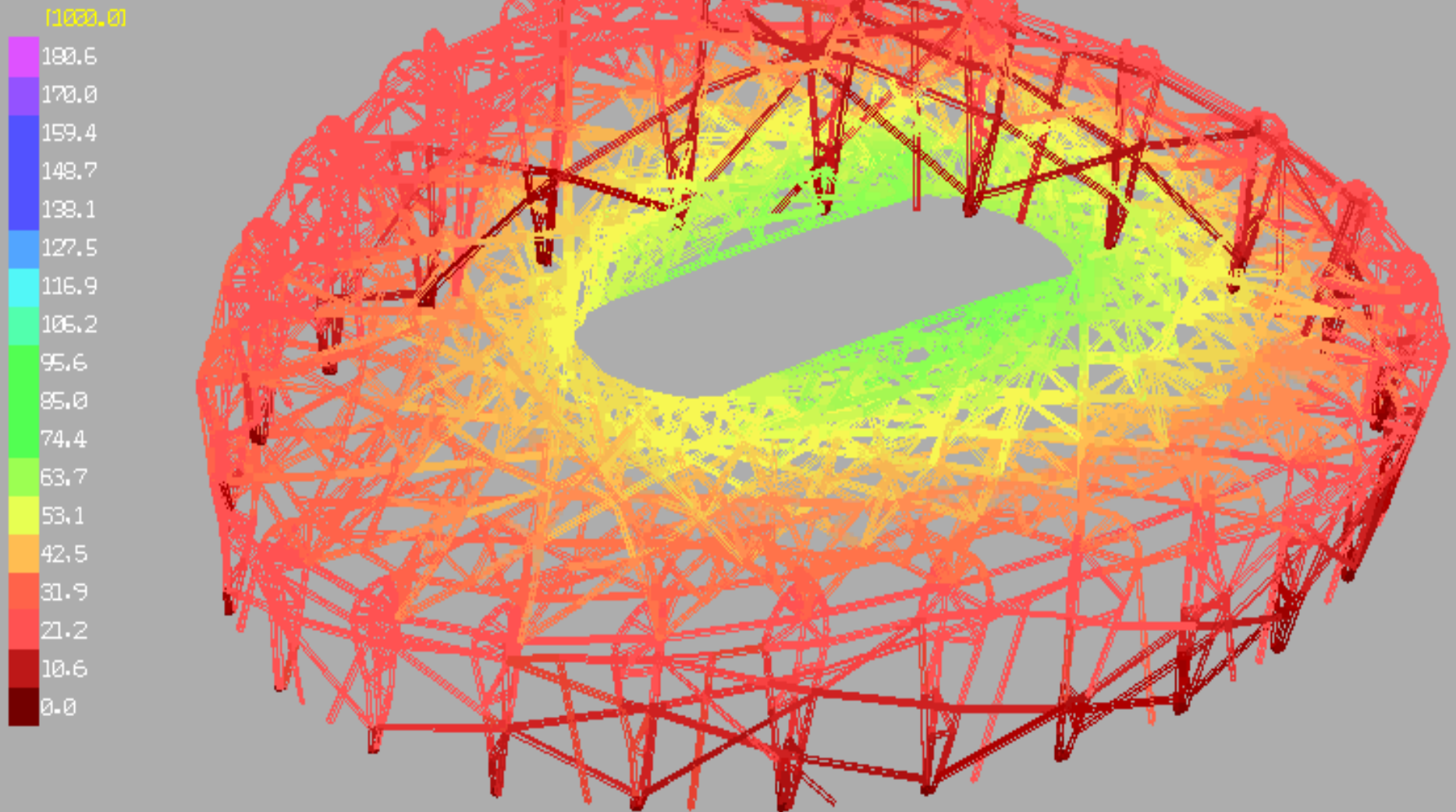


鸟巢钢结构,用空间程序SPASCAD建模









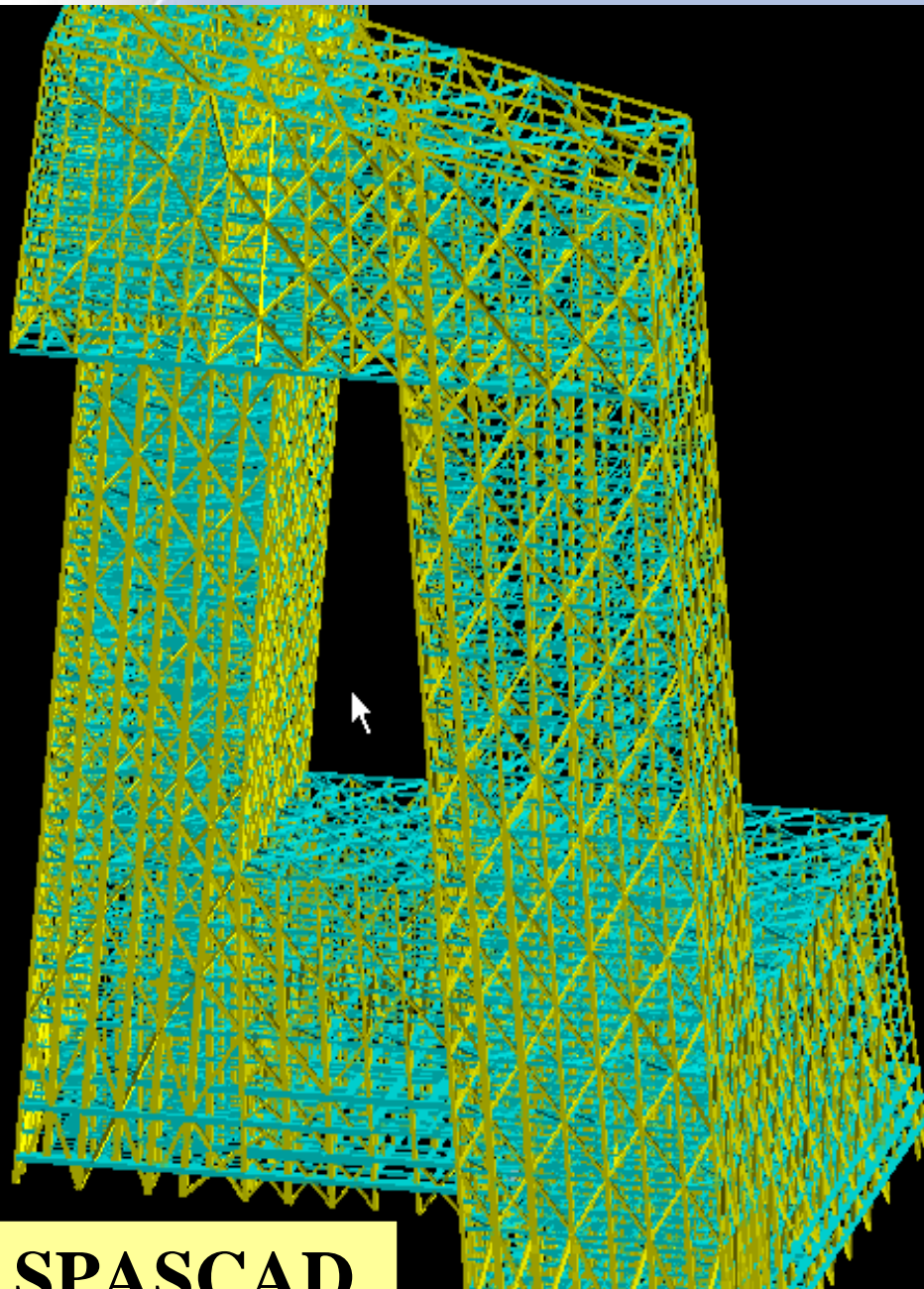
**Displacement on horizontal wind and vertical wind
(combination of 8 type of wind)**

Central Chinese Television CCTV, Beijing

The design of the new Central Chinese Television (CCTV) headquarters defies the popular conception of a skyscraper -- and it broke Beijing's building codes and required approval by a special review panel. The standard systems for engineering gravity and lateral loads in buildings didn't apply to the CCTV building, which is formed by two leaning towers, each bent 90 degrees at the top and bottom to form a continuous loop.



The engineer's solution is to create a structural "tube" of diagonal supports. The irregular pattern of this "diagrid" system reflects the distribution of forces across the tube's surface. Designed by Rem Koolhaas and Ole Scheeren and engineered by Ove Arup, the new CCTV tower rethinks what a skyscraper can be.



Modeling with SPASCAD



PKPM has Broad Area in R&D

Urgent Requirement



Greenhouse Software



日光温室



文洛式温室



锯齿型温室



温室内部结构



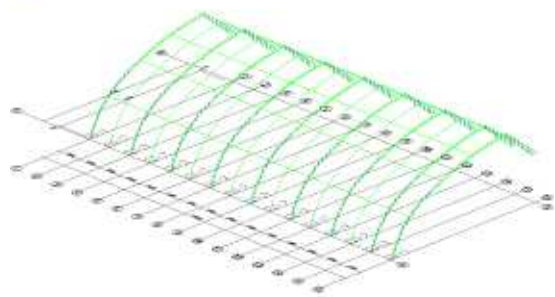
休闲观赏



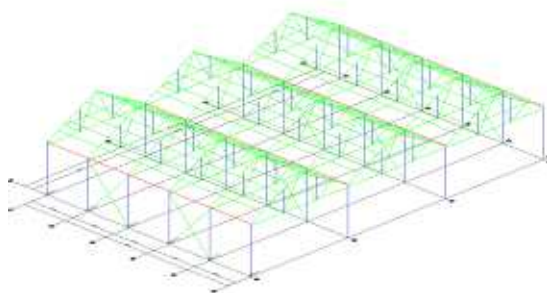
花卉养殖

For Modern Agriculture

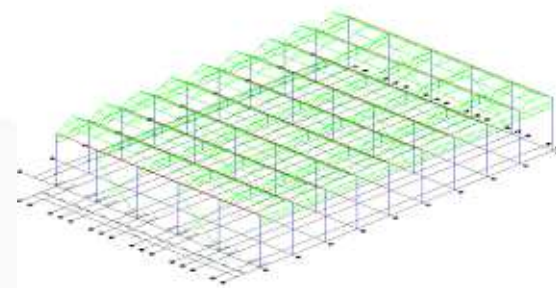
溫室設計軟件GSCAD - 功能特點



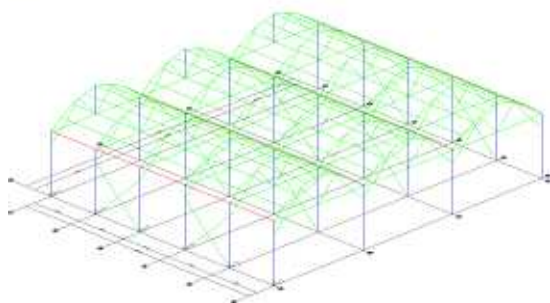
日光溫室



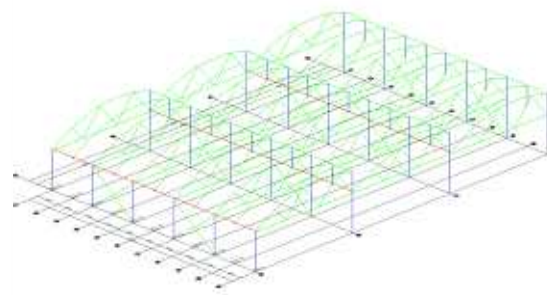
大屋脊溫室



文洛式溫室



拱形結構溫室



鋸齒型溫室

Modeling、 Optimization、 Working Drawing

绿色建筑领域的多方面拓展 For Green Building

节能、节材、节水、节地、环保

场地设计, 小区规划, 日照设计, 园林设计, 风环境, 节能

Site Engineering

Planning,

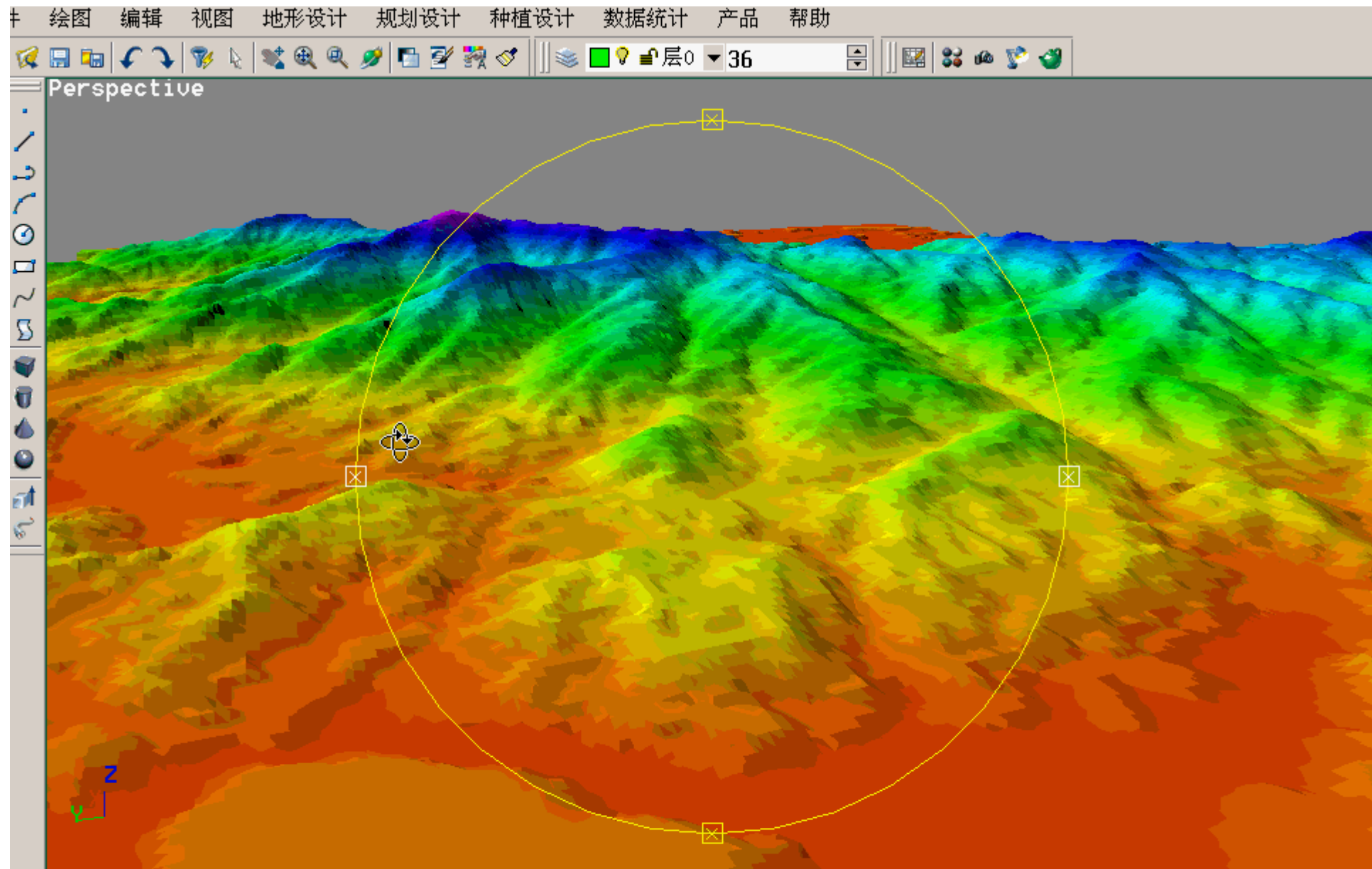
Sunlight considering,

Gardens and sight design,

Wind environment,

Energy saving

Site Engineering



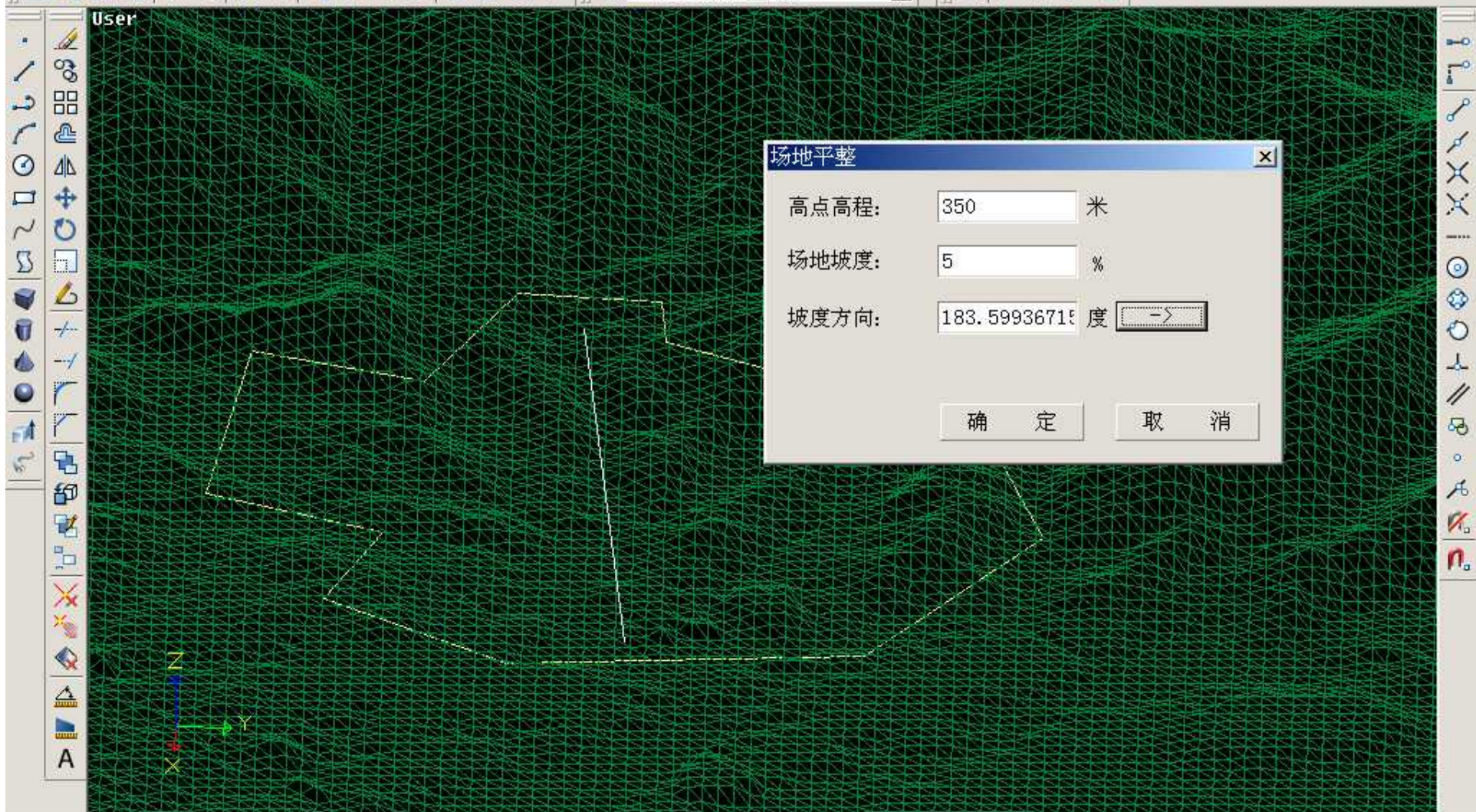
Form Terrain in Three dimension

动画

9, 23135823.57, 0.00

实体:99选择:0点数:304153面数:245000

坐标网格叉丝捕捉网格捕捉角度捕捉



场地平整

高点高程: 350 米

场地坡度: 5 %

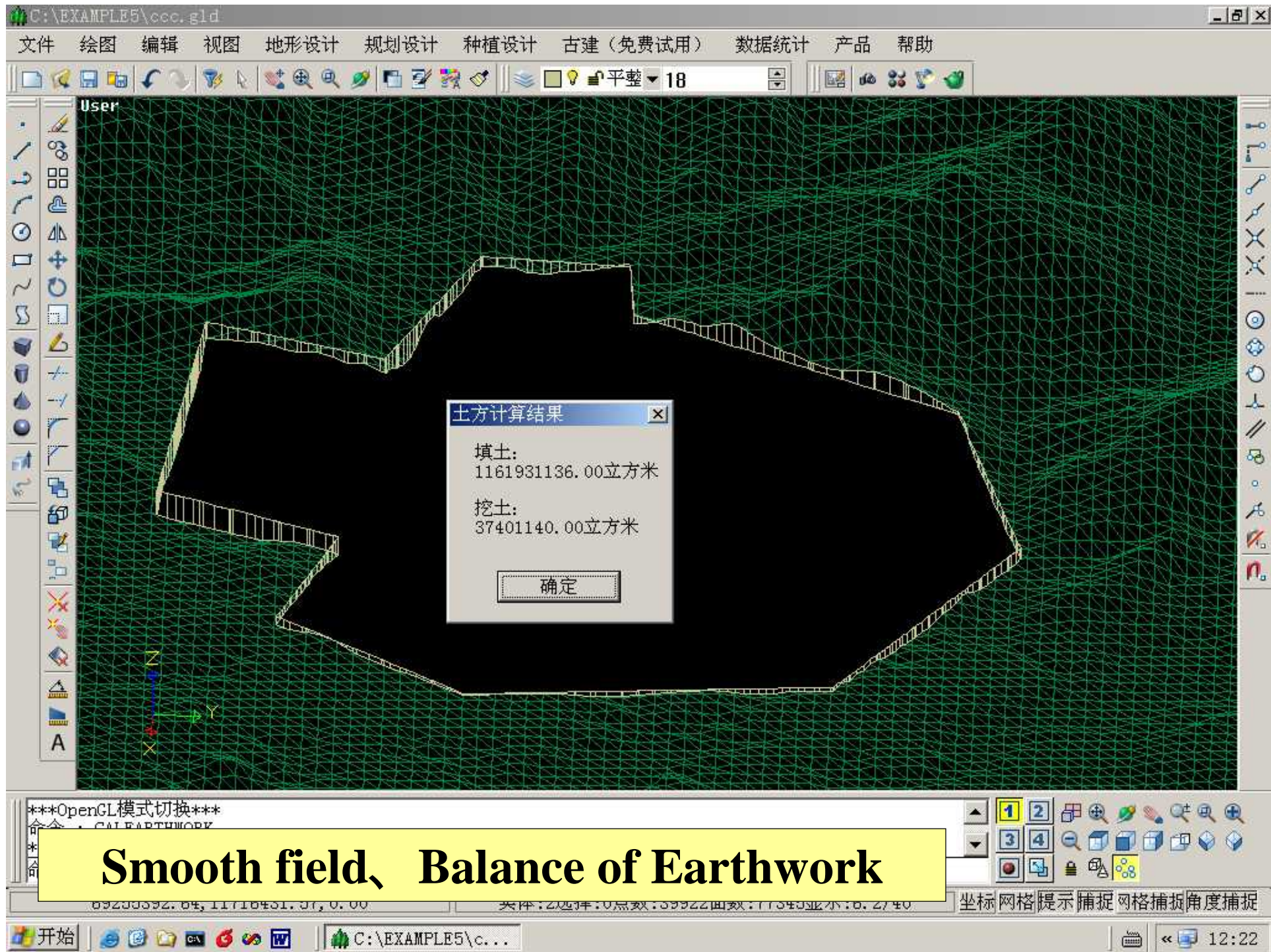
坡度方向: 183.59936715 度

确定 取消

请选择平整场地轮廓线:
选择单个实体:
请输入场地坡度方向第一点
请输入场地坡度方向第二点

Smooth field 场地平整





Smooth field、Balance of Earthwork

日照设计

Sunlight considering



位置: (116.00, 39.00)
时间: 1月20日 10:50



位置: (115.96.39.30)
时间: 1月20日 3:03

F:\SUNLIGHT\work\sunl.gld

文件 绘图 编辑 视图 自造建筑 导入建筑 日照设置 日照分析 帮助

User

空间点分析报表

	A	B	C	D	E	F	G	H
1	窗编号	分析点位	窗尺寸	窗底标高	窗朝向	总日照时	最大连续	日照时段
2	C1-1-1+	16405, 3226.5, 0.0	宽2800.0高3200.0	0.0	南偏东9.1度	4:30	3:15	10:15--13:30 15:25--16:40
3	C1-2-1+	16405, 3226.5, 3200.	宽2800.0高2850.0	3200.0	南偏东9.1度	4:30	3:15	10:15--13:30 15:25--16:40
4	C1-3-1+	16405, 3226.5, 6050.	宽2800.0高2850.0	6050.0	南偏东9.1度	4:30	3:15	10:15--13:30 15:25--16:40
5	C1-4-1+	16405, 3226.5, 8900.	宽2800.0高2850.0	8900.0	南偏东9.1度	4:30	3:15	10:15--13:30 15:25--16:40
6	C1-5-1+	16405, 3226.5, 11750	宽2800.0高2850.0	11750.0	南偏东9.1度	4:30	3:15	10:15--13:30 15:25--16:40
7	C1-6-1+	16405, 3226.5, 14600	宽2800.0高2850.0	14600.0	南偏东9.1度	4:30	3:15	10:15--13:30 15:25--16:40
8	C1-7-1+	16405, 3226.5, 17450	宽2800.0高2850.0	17450.0	南偏东9.1度	4:30	3:15	10:15--13:30 15:25--16:40
9	C1-8-1+	16405, 3226.5, 20300	宽2800.0高2850.0	20300.0	南偏东9.1度	4:30	3:15	10:15--13:30 15:25--16:40
10	C1-9-1+	16405, 3226.5, 23150	宽2800.0高2850.0	23150.0	南偏东9.1度	4:30	3:15	10:15--13:30 15:25--16:40
11	C1-10-1	16405, 3226.5, 26000	宽2800.0高2850.0	26000.0	南偏东9.1度	4:30	3:15	10:15--13:30 15:25--16:40

打印预览 打印 保存 关闭

选择了522个窗
计算完成总用时131.453秒

Sunlight table for window 窗日照表

坐标 网格 叉丝 捕捉 网格捕捉 角度捕捉

风景园林设计软件

Gardens and sight design



901x1336x32b

油松4.png



1047x1180x32b

白皮松1.png



809x1288x32b

雪松1.png



701x1820x32b

龙柏1.png



853x1100x32b

圆柏1.png



870x1408x32b

桧柏2.png



560x488x32b

黄栌.png



1244x1530x32b

银杏2.png



2400x1980x32b

栾树.png



1368x1466x32b

垂柳1.png



1484x1529x32b

国槐.png



2352x2500x32b

紫穗槐.png



1097x710x32b

桑树.png



1072x1253x32b

枫树2.png



2070x1326x32b

凤凰木1.png



1343x1218x32b

馒头柳.png



1598x1272x32b

龙爪槐1.png



2459x2400x32b

菩提树1.png



1304x1768x32b

白玉兰1.png



1027x890x32b

泡桐.png



1506x1391x32b

黄槐1.png



2773x1749x32b

梧桐1.png



1284x1200x32b

九里香1.png



1800x2328x32b

雀舌黄杨.png



936x682x32b

梧桐1.png



1334x1783x32b

九里香1.png



1376x1401x32b

雀舌黄杨.png



1585x1299x32b

雀舌黄杨.png

Plant Database in China

种植设计

植物库: 符号类型:

中文名: 拉丁名:

树冠圆锥形，大枝平展，小枝稍下垂。喜光，稍耐荫，喜温凉湿润气候。的酸性土壤生长最好。树姿优美，终年苍翠，是珍贵的庭园观赏及城市绿

图库选择

植物平面

苗木质量要求

- 本地种类
- 本地种雄株毛白
- 不脱褪
- 长势旺盛
- 长势正常
- 呈丛生状
- 呈匍伏形树冠
- 丛生
- 二分枝以上

尺寸

冠幅(m): 变动量: %

树高(m): 变动量: %

规格:

布置

旋转: 角

高程: 高

片植对话框

矩形 品字形 随机

株距: 行距:

定位边界线选择方式

- 原有边界线
- 鼠标依次选点组成边界线

列植对话框

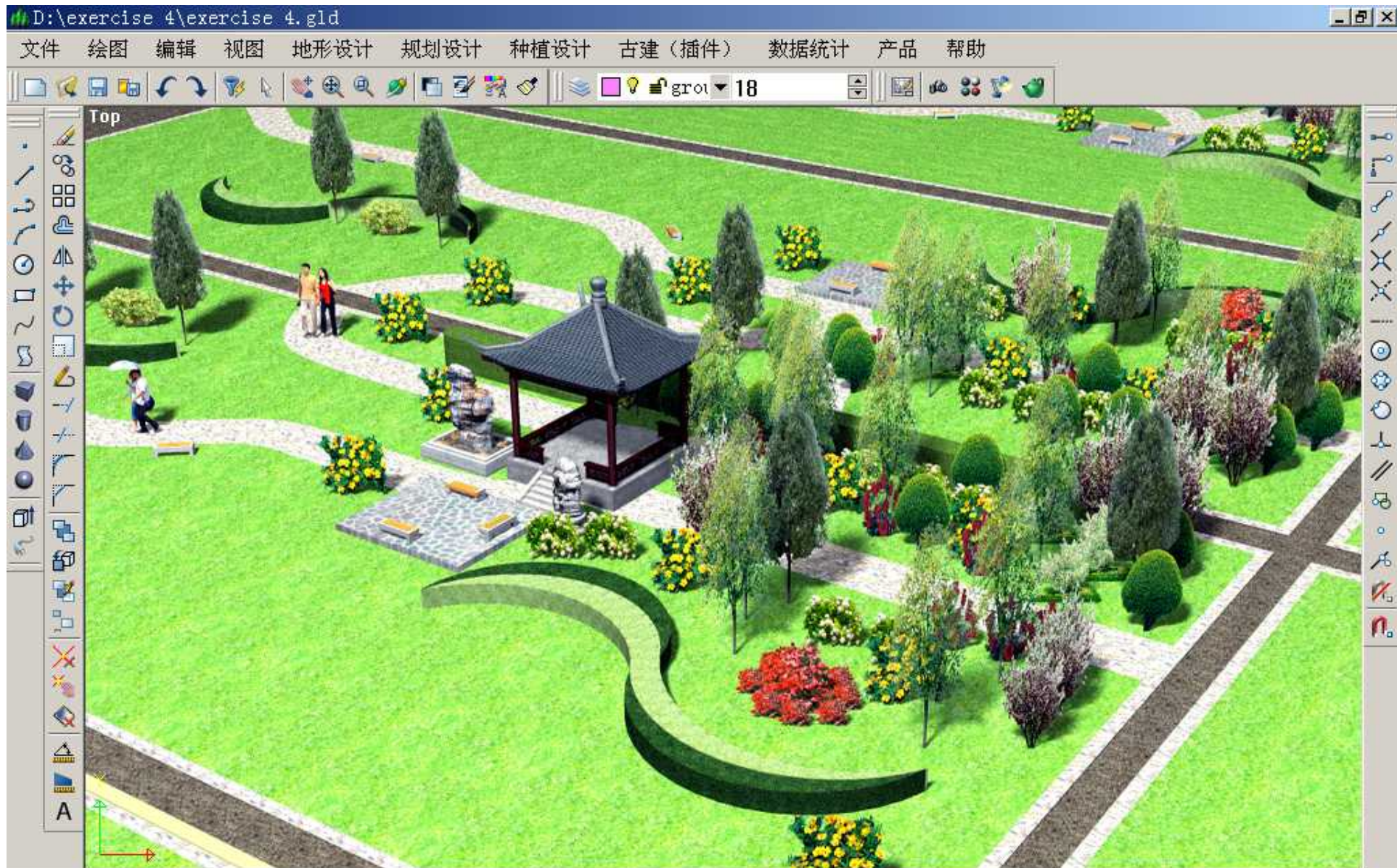
中心 对植 单侧

植物株距: 偏移距离:

定位边界线选择方式

- 原有边界线
- 鼠标依次选点组成边界线

Plant procedure



绿地、乔木、灌木、道路、园林小品



Animation 动画

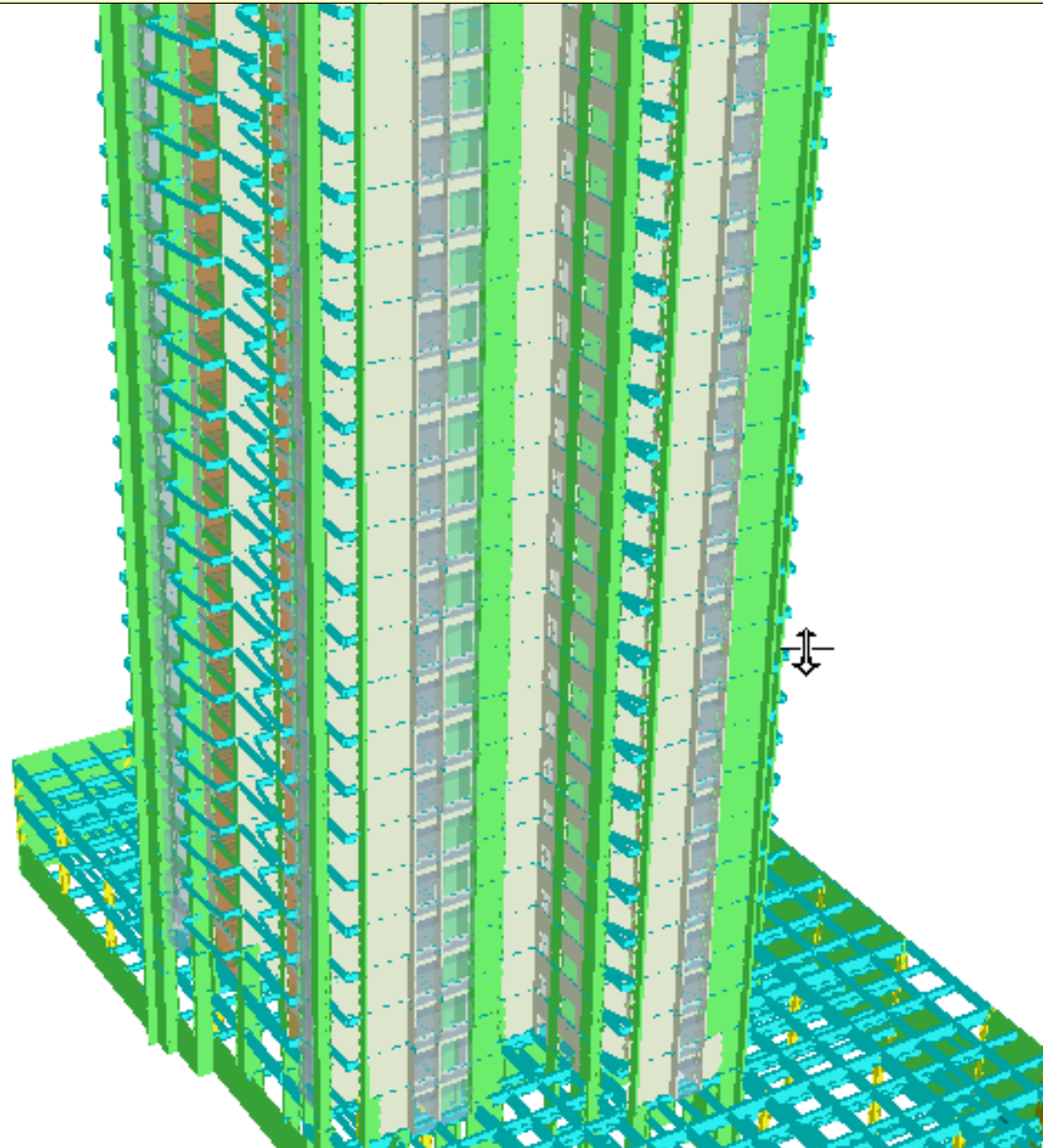


Animation 动画

6、建筑节能类设计、鉴定分析软件

Design for energy saving of building

Basis at Building Model , Energy Consume calculate
of whole building , According to Climate Data



Energy Consume Result of Whole Buliding

动态计算分析结果

计算城市:上海

气象数据文件:SHANGTY3.BIN

计算节能指标用建筑总面积(m²):3852.03

节能综合指标计算条件:

居室室内计算温度,冬季全天为18°C;夏季全天为26°C.

室外气象计算参数采用典型气象年.

采暖和空调时,换气次数为1.0次/h.

采暖、空调设备为家用气源热泵空调器,空调额定能效比取2.3,采暖额定能效比取1.9.

室内照明得热为每平方米每天0.0141kWh,室内其他得热平均强度为4.3W/m².

冬季结果

HDD18 (°C.d)	动态分析计算结果		节能综合指标限值	
	耗热量指标 (W/m ²)	采暖年耗电量 (kWh/m ²)	耗热量指标 (W/m ²)	采暖年耗电量 (kWh/m ²)
1691		34.78	17.41	31.00

夏季结果

CDD26 (°C.d)	动态分析计算结果		节能综合指标限值	
	耗冷量指标 (W/m ²)	空调年耗电量 (kWh/m ²)	耗冷量指标 (W/m ²)	空调年耗电量 (kWh/m ²)
164		18.95	26.64	24.06

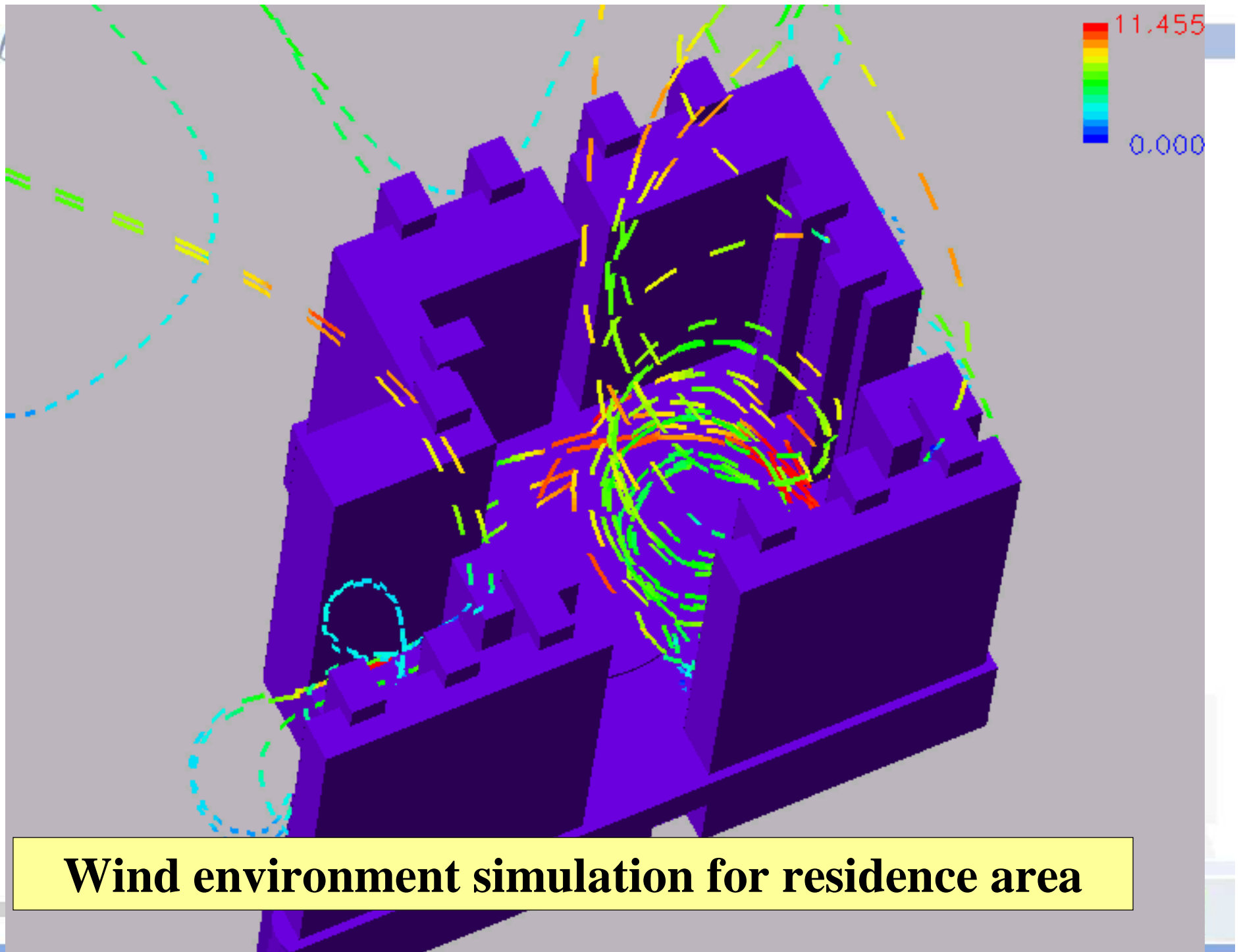
全年耗电量=53.73(kWh/m²)

全年耗电量指标限定值=55.06(kWh/m²)

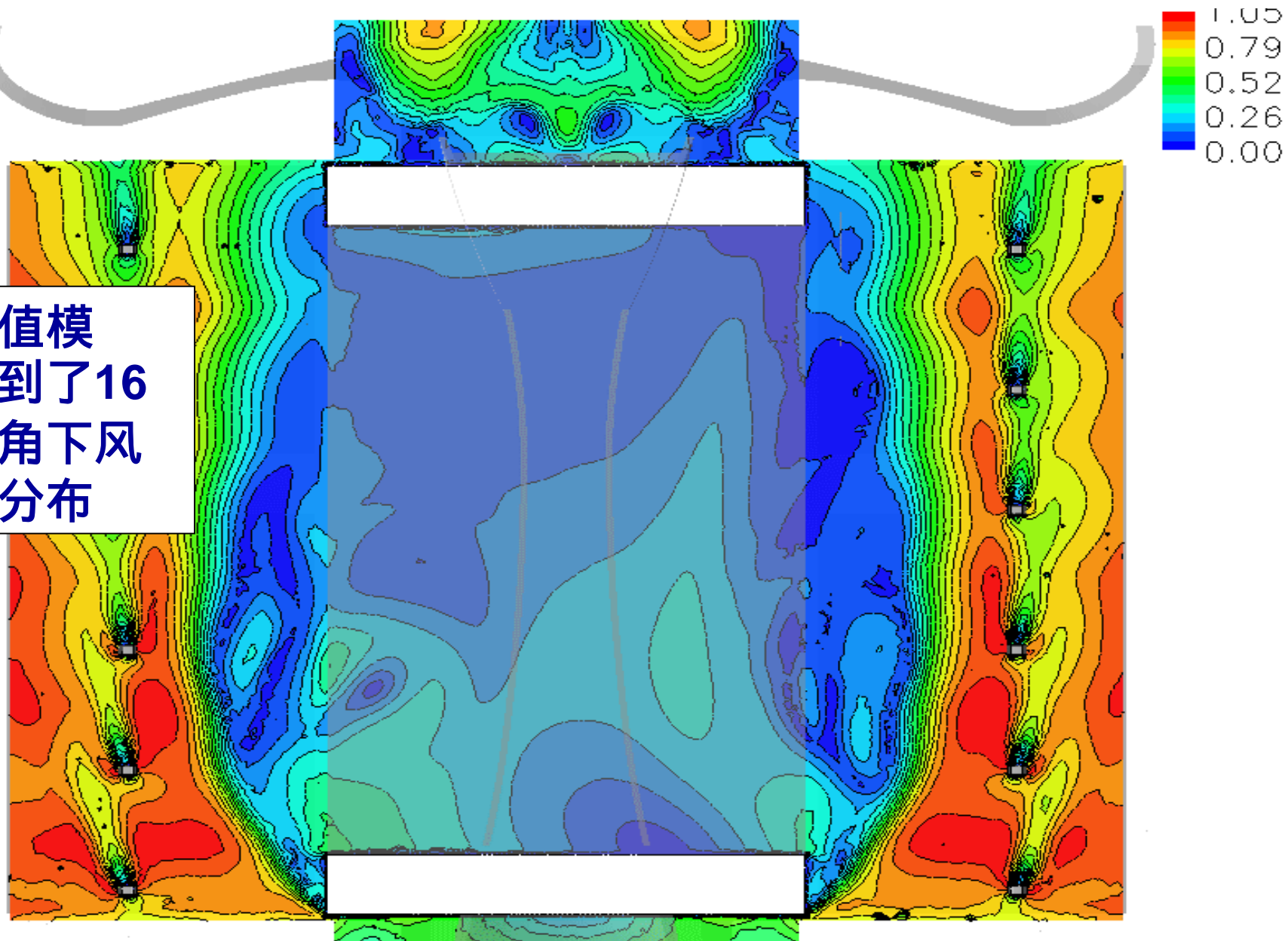
结论: 符合规范JGJ 134-2001 第5.0.5条的要求

5、风环境

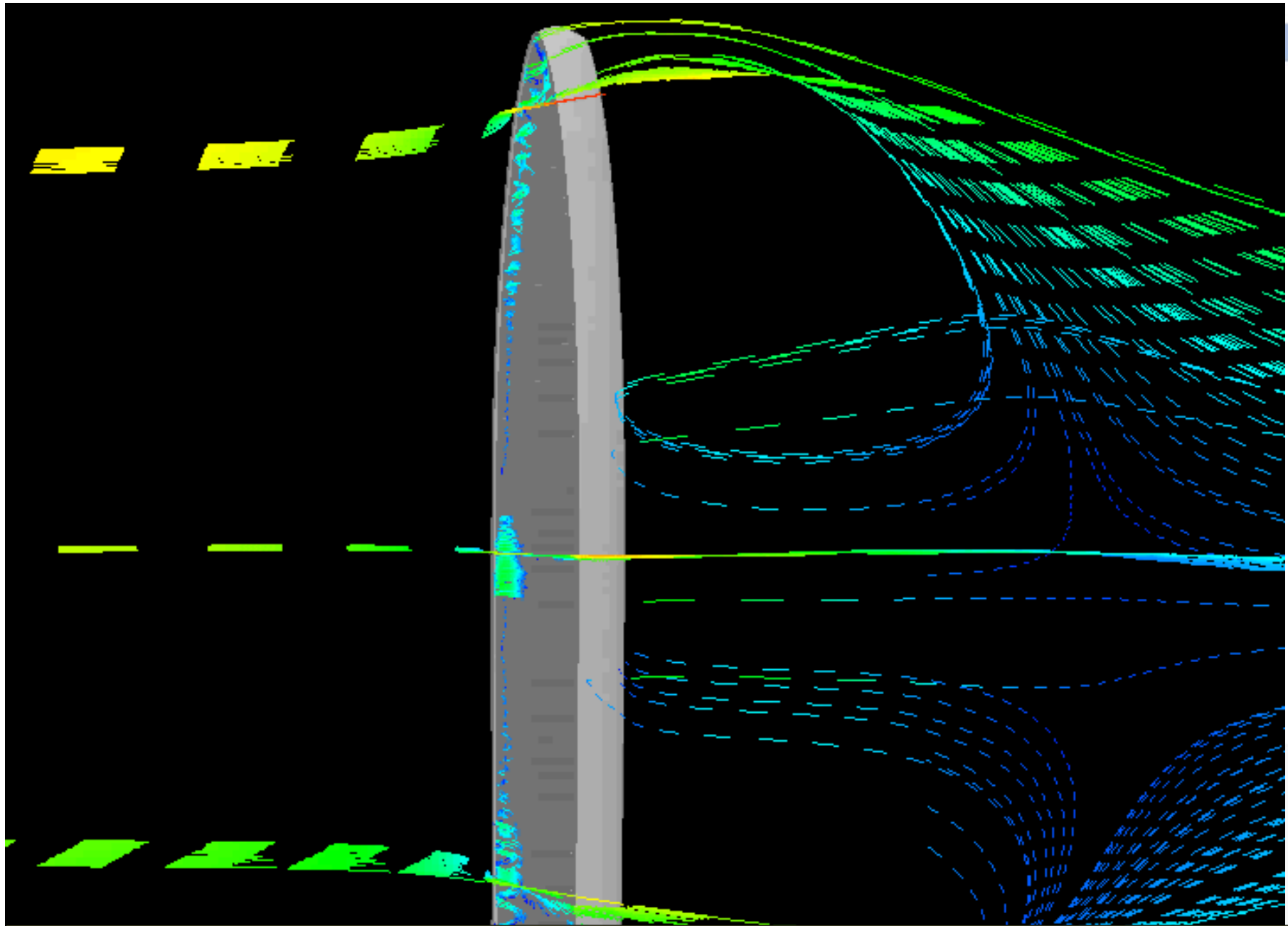
Wind environment



通过数值模拟，得到了16个风向角下风速场的分布



Wind environment simulation for New Guangzhou Railway Station



Wind environment simulation for High rise Building

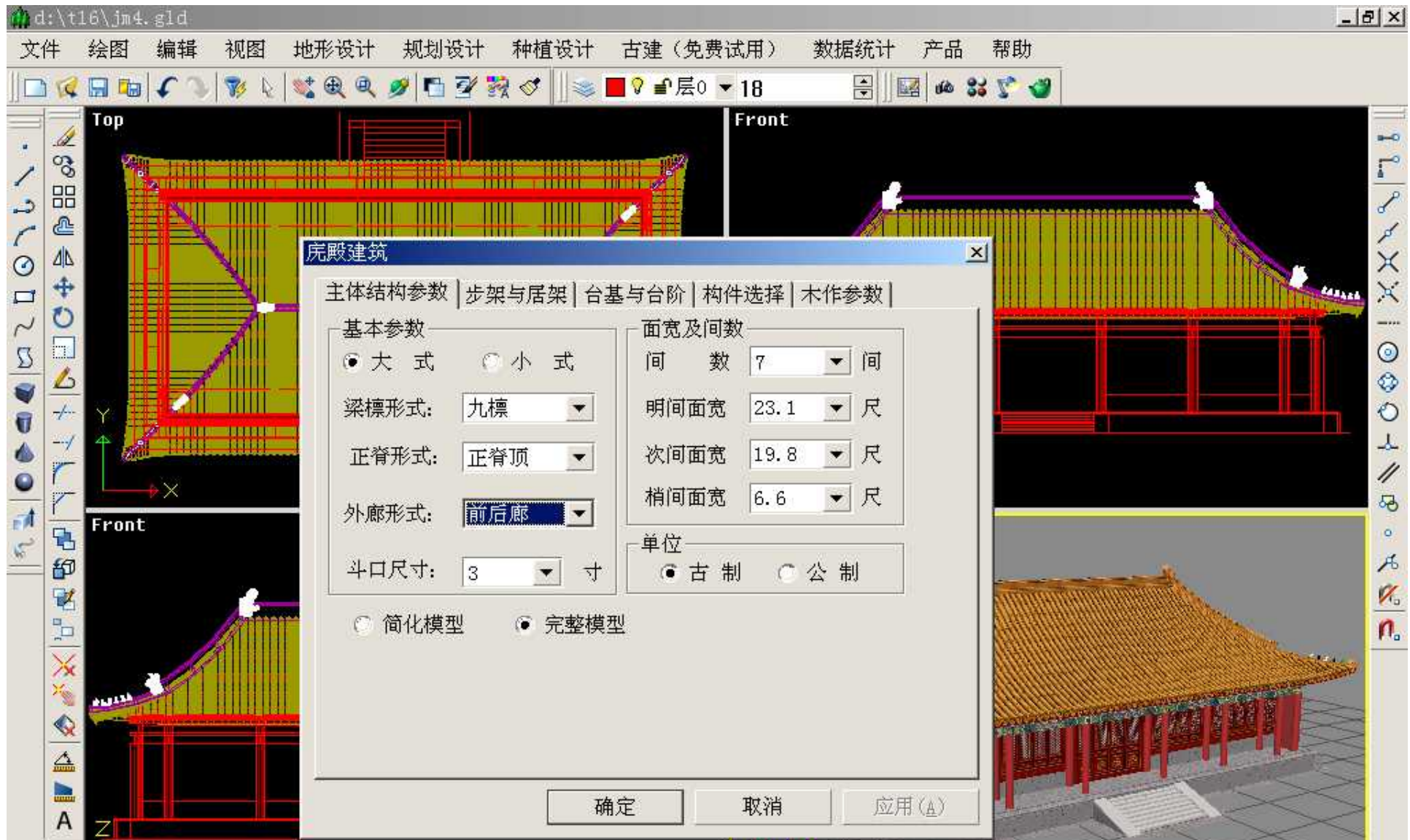
小区规划 Planning



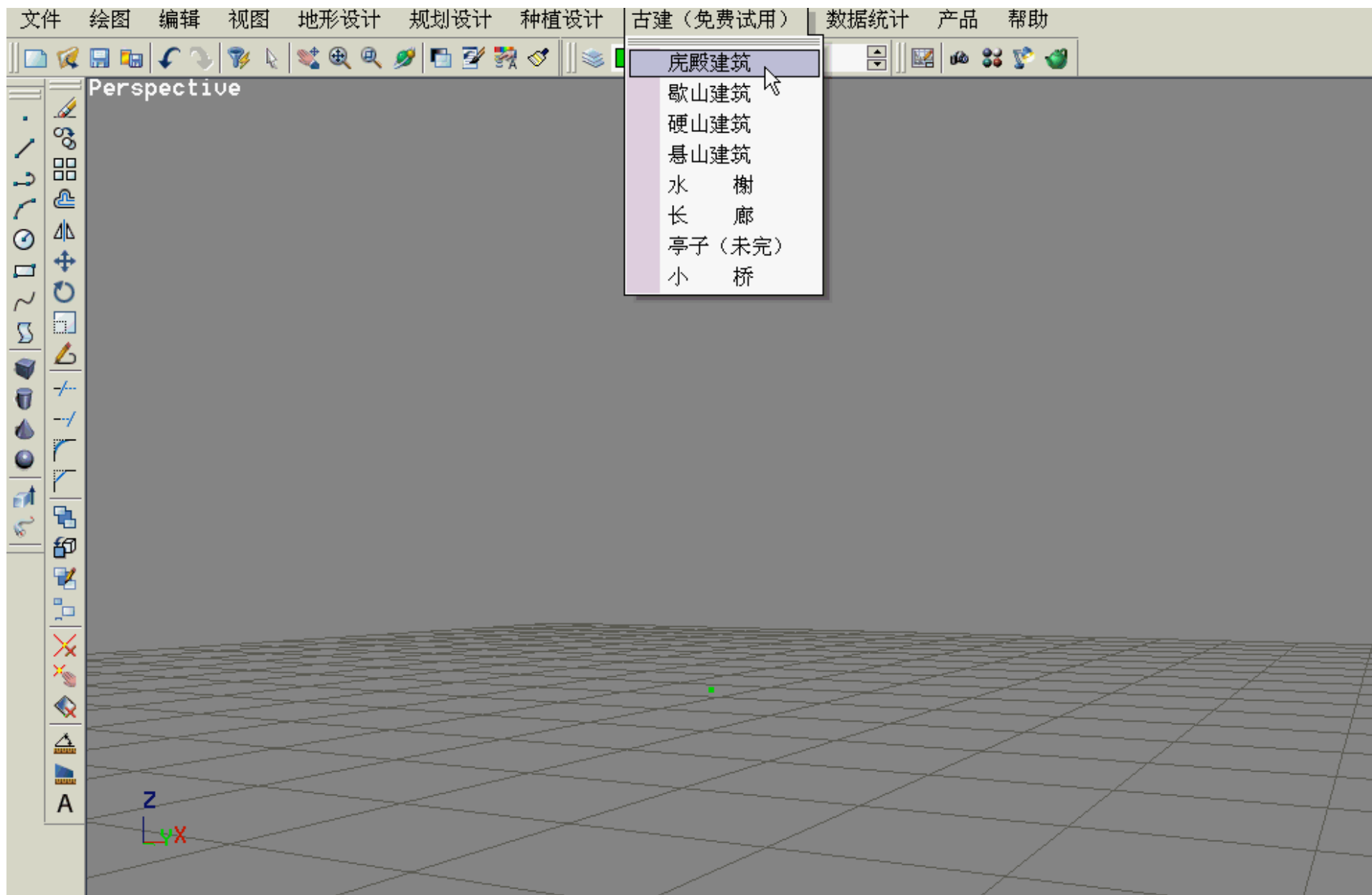
Control The Index such as Public servic, Green, Road, Sunlight, Carpark, Etc

中国古建传统建筑 设计软件

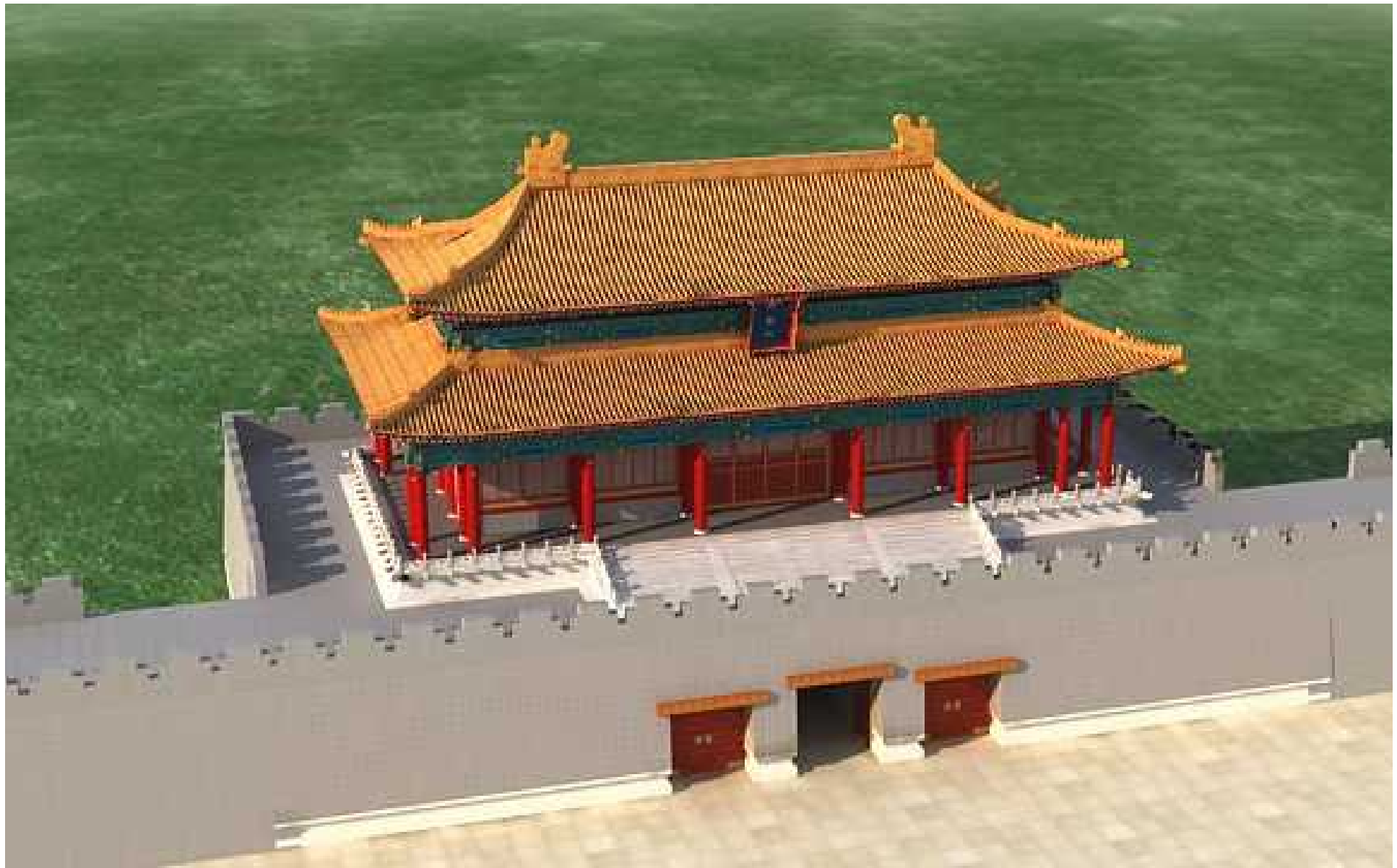
Chinese Traditional type building Desin



Summary of various module for Chinese ancient architecture design, take the parameter that represent various variety



After input parameter few seconds the modeling of ancient architecture will realistic generate in 3D



City wall gate



Pavilion with double eaves





YingShan house 硬山民居



大门（担梁式）



Long corridor in park



Torii

在施工领域的应用 In Building Construction

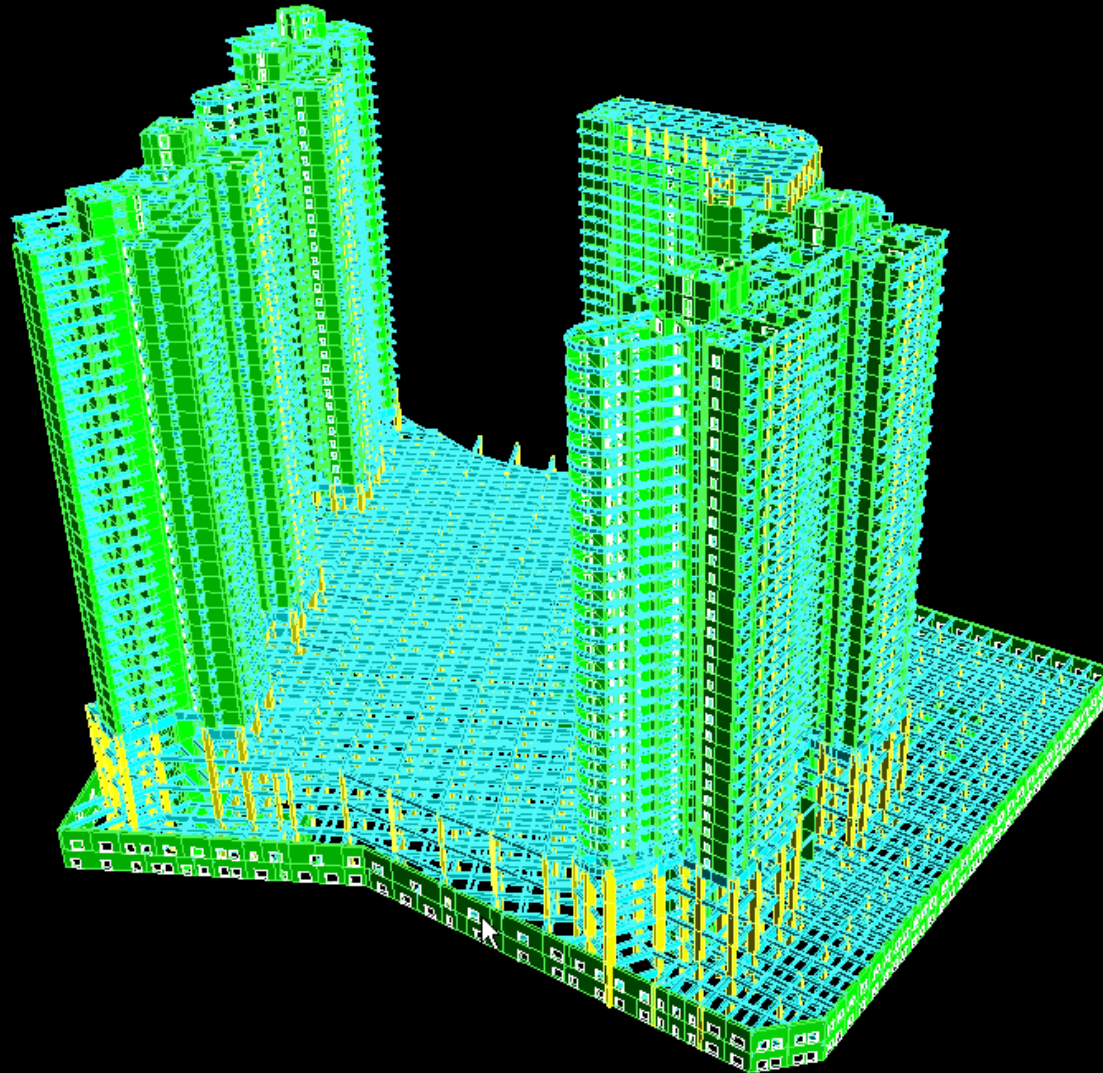
(1) 工程造价分析 Cost Analysis

(2) 施工管理 Construction Management

(3) 施工技术 Construction Technology

(4) 施工企业和项目管理信息化方案 Mis solution

Cost Analysis



**Read the data from design work, continue the work of
Quantity Take Off**

	位置	工程量	单位	计算式
混凝土工程				
□	墙			
□	墙	645.567		
□	2-25 钢筋砼外墙250	93.545	m2	
├	492 <1,B+2100:C-1700>	1.160	m2	墙面积=0.400<长>*((3.000<墙平均高>-0.100<扣板>)
├	11 <1,B:B+2100>	6.090	m2	墙面积=2.100<长>*((3.000<墙平均高>-0.100<扣板>)
├	423 <1,D+1505:D+1800>	0.854	m2	墙面积=0.295<长>*((3.000<墙平均高>-0.100<扣板>)
├	336 <1,D-800:D>	2.320	m2	墙面积=0.800<长>*((3.000<墙平均高>-0.100<扣板>)
├	53 <1,D:D+1505>	-1.634	m2	墙面积=1.500<长>*((3.000<墙平均高>-0.100<扣板>)-6.000<扣门窗洞口>
├	424 <1,E-1484:E>	4.305	m2	墙面积=1.485<长>*((3.000<墙平均高>-0.100<扣板>)
├	76 <1,E:E+600>	1.740	m2	墙面积=0.600<长>*((3.000<墙平均高>-0.100<扣板>)
├	334 <1,F-1800:F>	5.220	m2	墙面积=1.800<长>*((3.000<墙平均高>-0.100<扣板>)
├	105 <13,F:H>	1.200	m2	墙面积=0.400<长>*((3.000<墙平均高>-0.100<扣板>)
├	106 <15,F:H>	1.200	m2	墙面积=0.400<长>*((3.000<墙平均高>-0.100<扣板>)
├	1 <2,A:A+550>	1.595	m2	墙面积=0.550<长>*((3.000<墙平均高>-0.100<扣板>)
├	108 <23,F:G>	3.900	m2	墙面积=1.300<长>*((3.000<墙平均高>-0.100<扣板>)
├	4 <24,A:A+550>	1.595	m2	墙面积=0.550<长>*((3.000<墙平均高>-0.100<扣板>)
├	6 <26,A:A+550>	1.595	m2	墙面积=0.550<长>*((3.000<墙平均高>-0.100<扣板>)
├	472 <27,B+2100:C-1700>	1.160	m2	墙面积=0.400<长>*((3.000<墙平均高>-0.100<扣板>)
├	10 <27,C+2100:D-1700>	1.160	m2	墙面积=2.100<长>*((3.000<墙平均高>-0.100<扣板>)
├	54 <27,D:D+1500>	4.350	m2	墙面积=1.500<长>*((3.000<墙平均高>-0.100<扣板>)
├	426 <27,E-1500:E>	4.350	m2	墙面积=1.500<长>*((3.000<墙平均高>-0.100<扣板>)
├	77 <27,E:E+400>	1.160	m2	墙面积=0.400<长>*((3.000<墙平均高>-0.100<扣板>)

Output In Tree

Formula of calculate

按定额计算：
构件工程量计算书

The Quantity in detail:Beam,Column,Wall,Slab,Brick,...

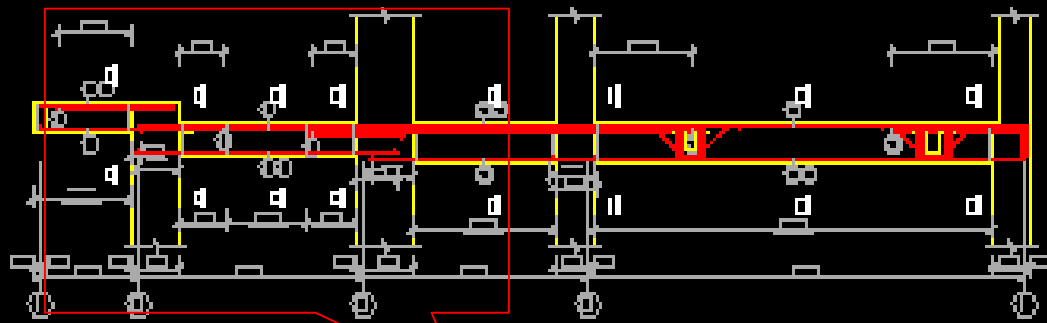
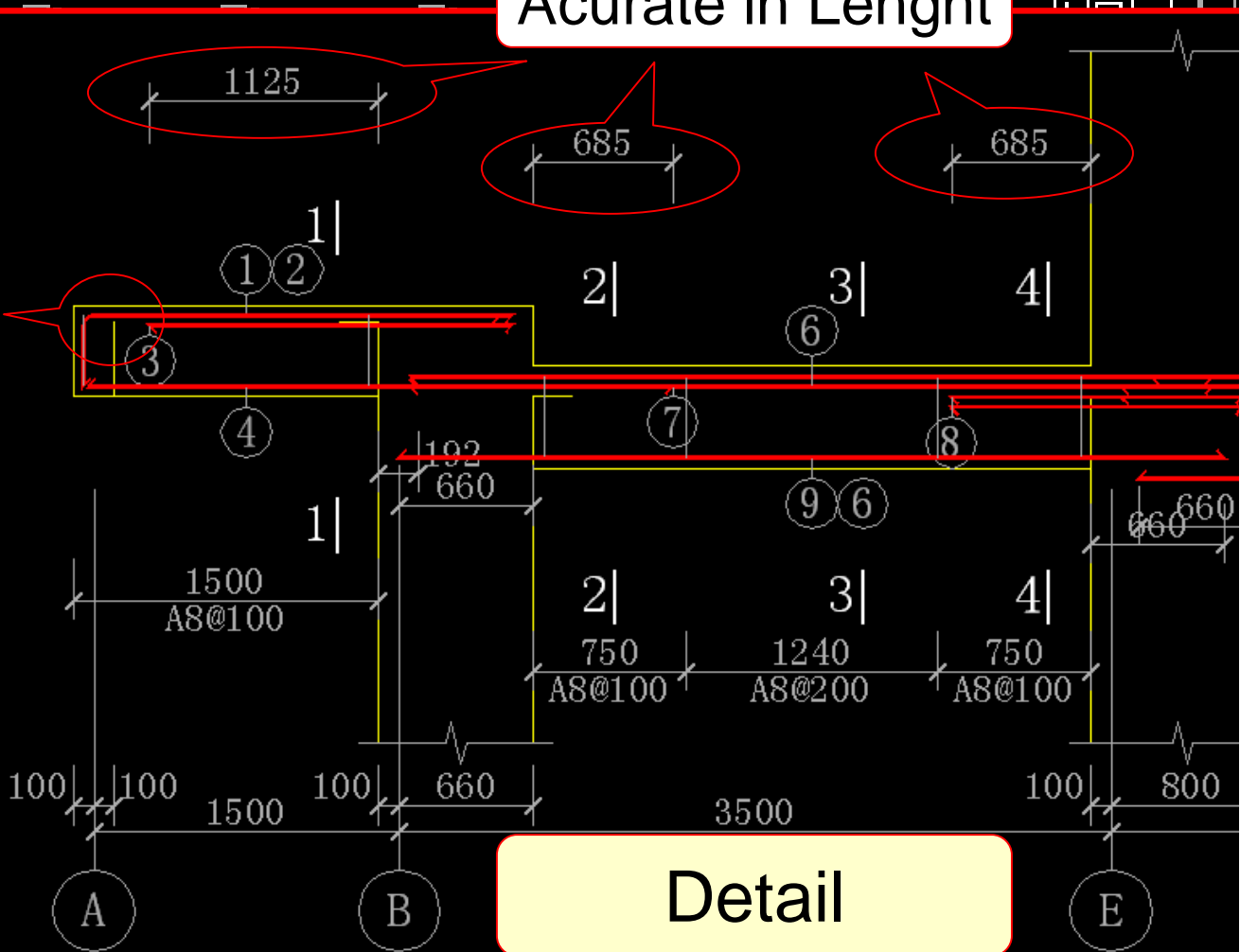


表 2-1-1 钢筋用量表

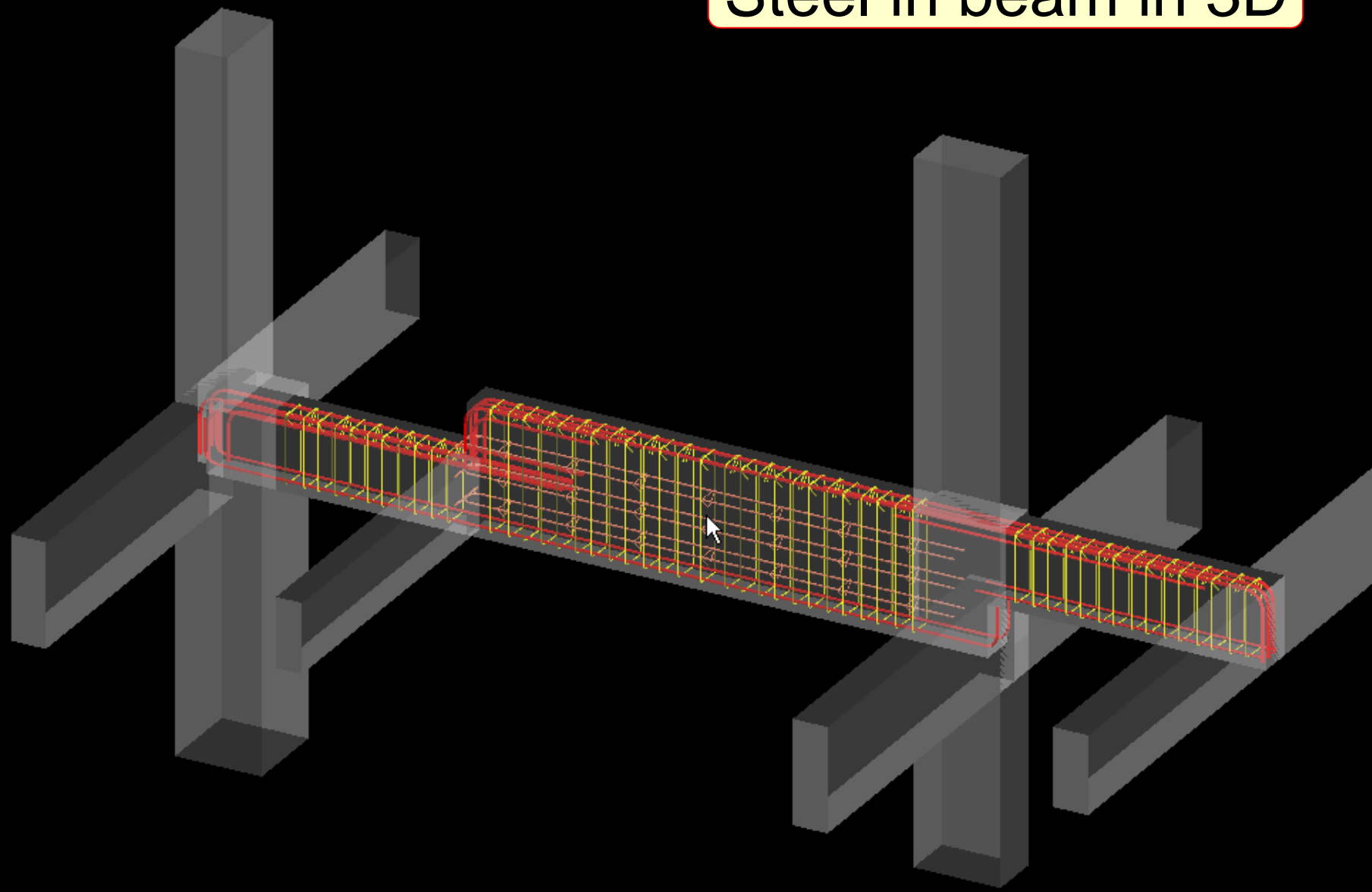
序号	钢筋规格	长度	数量	重量	备注
1	Φ10	1125	1	0.35	
2	Φ10	685	2	0.23	
3	Φ10	685	2	0.23	
4	Φ10	1125	1	0.35	
5	Φ10	685	2	0.23	
6	Φ10	685	2	0.23	
7	Φ10	1125	1	0.35	
8	Φ10	685	2	0.23	
9	Φ10	685	2	0.23	
10	Φ10	1125	1	0.35	

Acurate in Lenght

准确的弯折半径



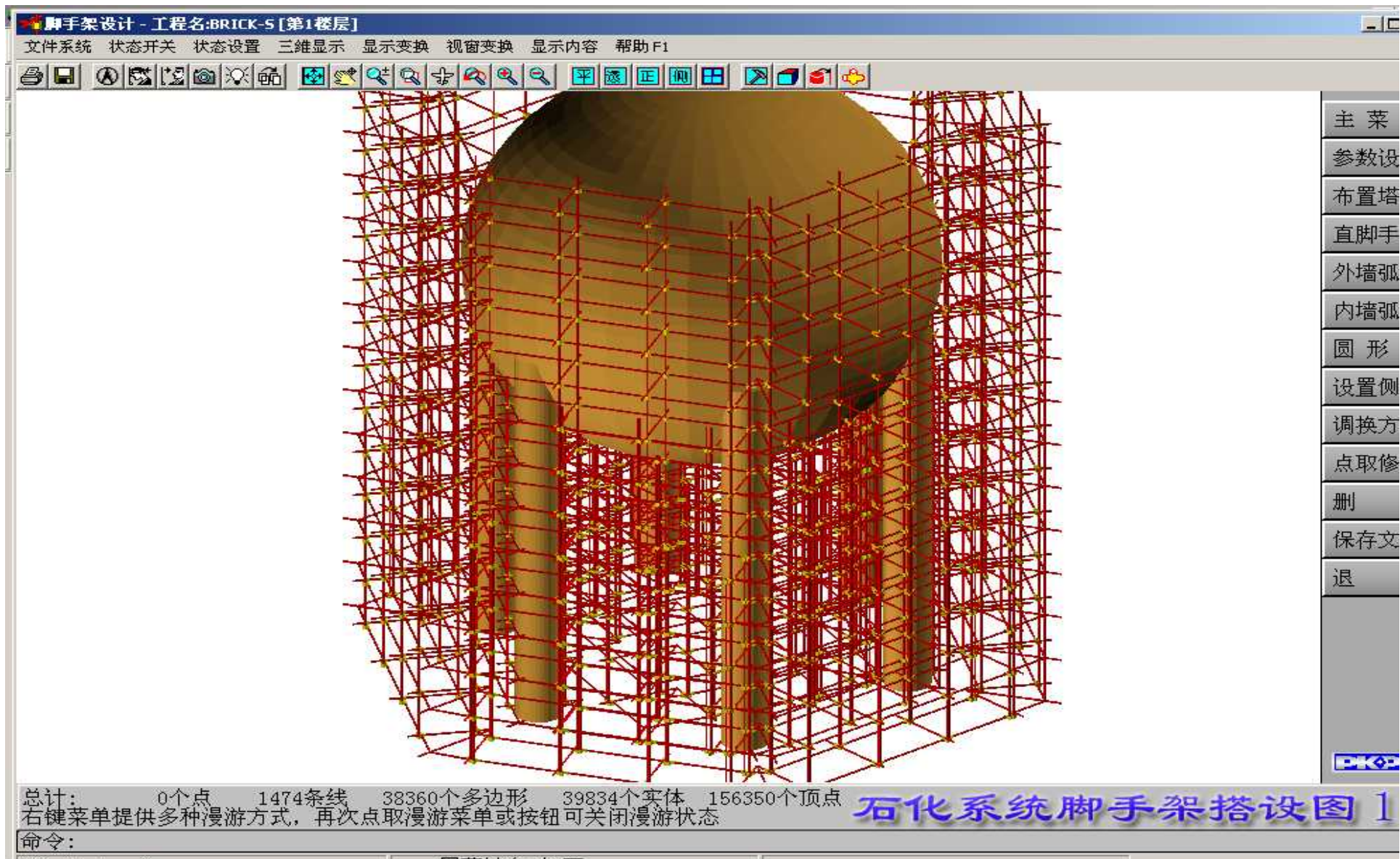
Steel in beam in 3D



Construction Technology

- Scaffold
- Support of Formwork
- Base Pit

Scaffold Design



工具箱

- 工程目录
 - 脚手架工程
 - 落地式钢管脚手架计算
 - 型钢悬挑脚手架计算
 - 型钢悬挑脚手架带联
 - 钢管悬挑脚手架计算
 - 悬挑架阳角型钢计算
 - 门式落地外架计算
 - 落地式卸料平台计算
 - 悬挑式卸料平台计算
 - 格构式型钢井架计算
 - 竹木脚手架计算
 - 扣件式钢管脚手架构
 - 扣件式钢管脚手架构
 - 模板工程
 - 塔吊基础工程
 - 结构吊装工程
 - 大体积混凝土工程
 - 混凝土工程
 - 降排水工程
 - 临时设施工程
 - 钢筋工程
 - 附录工程

落地式钢管脚手架计算

脚手架参数 | 荷载参数

脚手架参数

横向间距或排距 (m)

步距 (m)

立杆的间距 (m)

内排架距离墙体长度 (m)

脚手架搭设高度 (m)

双管的高度 (m)

双钢管计算方法

连墙件布置

钢管外径 (mm)

钢丝绳卸荷计算

脚手架

单排 双排

大小横杆布置

小横杆在上 大横杆在上

提示

搭接在大横杆上的小横杆根数

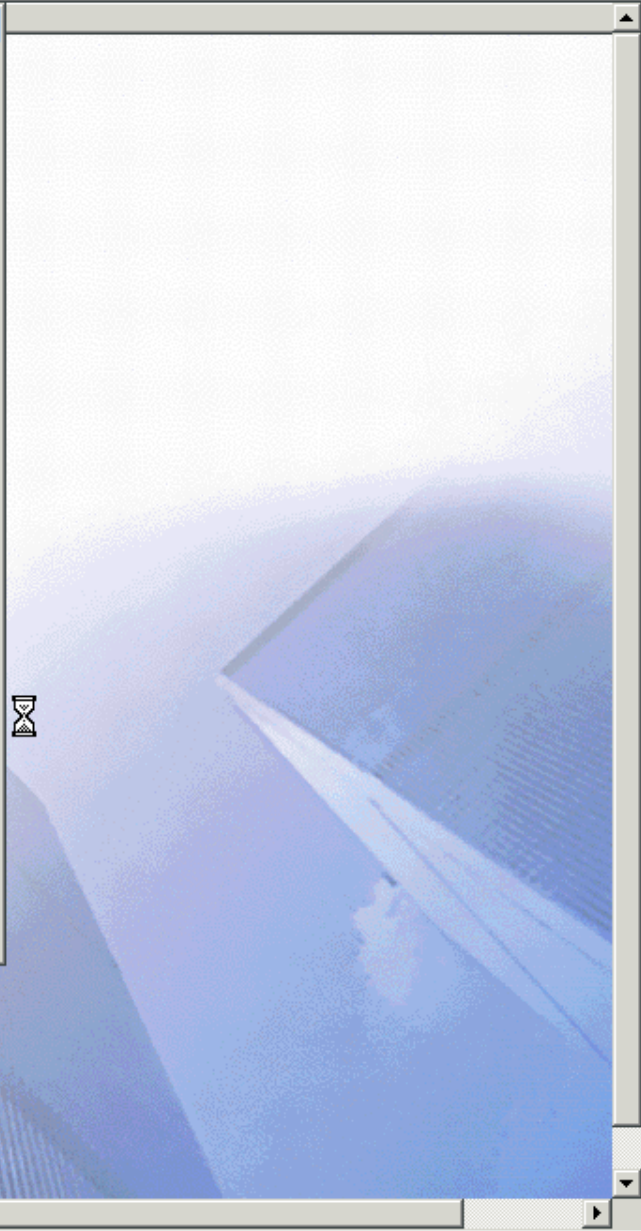
地基参数

地基承载力标准值 (kN/m²)

基础底面扩展面积 (m²)

地基承降低系数

下一步 计算书 取消 帮助



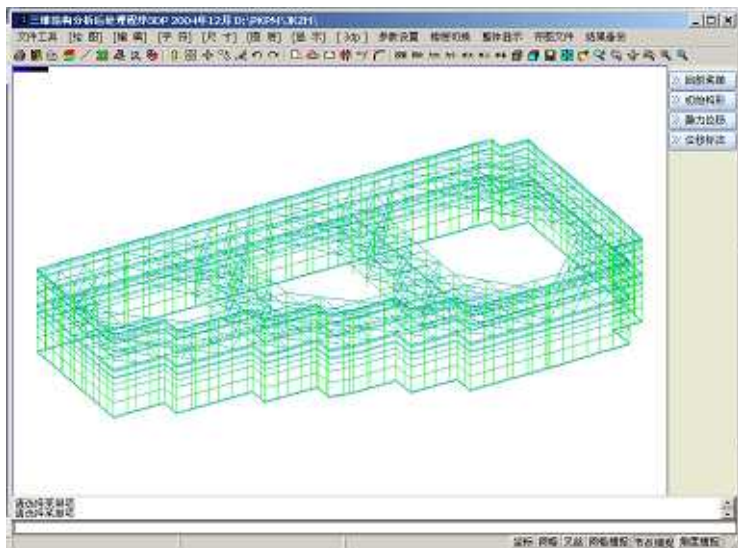
Scaffold Design



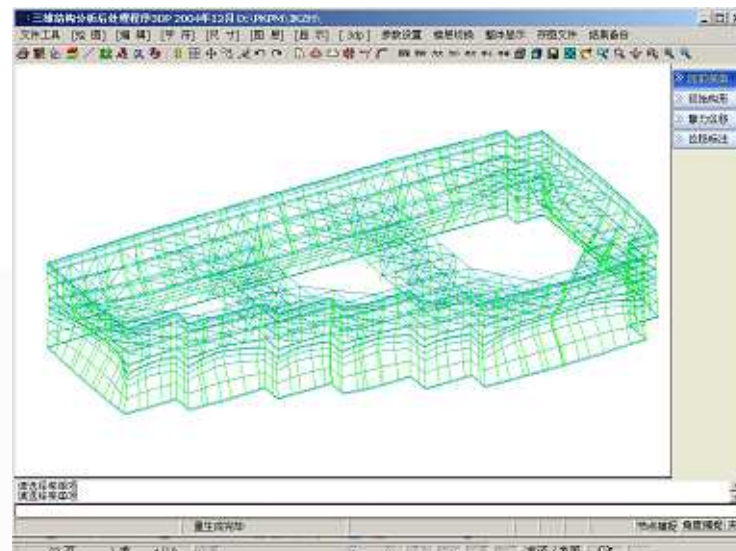
Real site



Result-宁波坤和中心地连墙



1

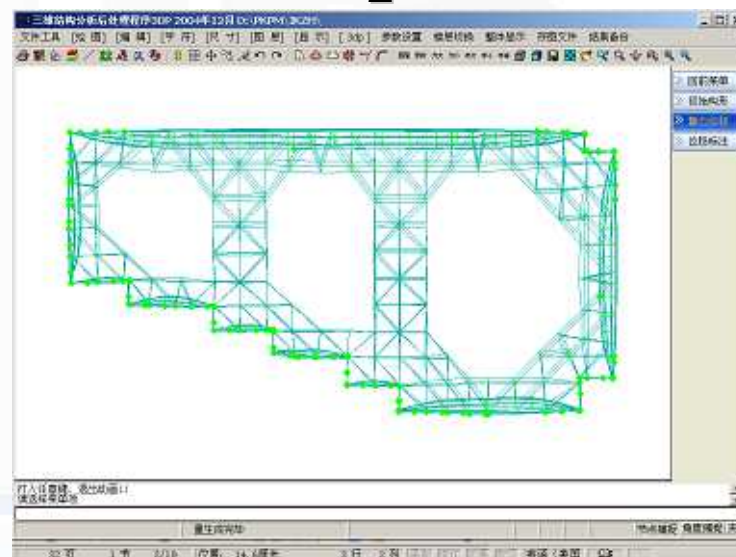


2

图1 地连墙和内支撑结构有限元网格划分图

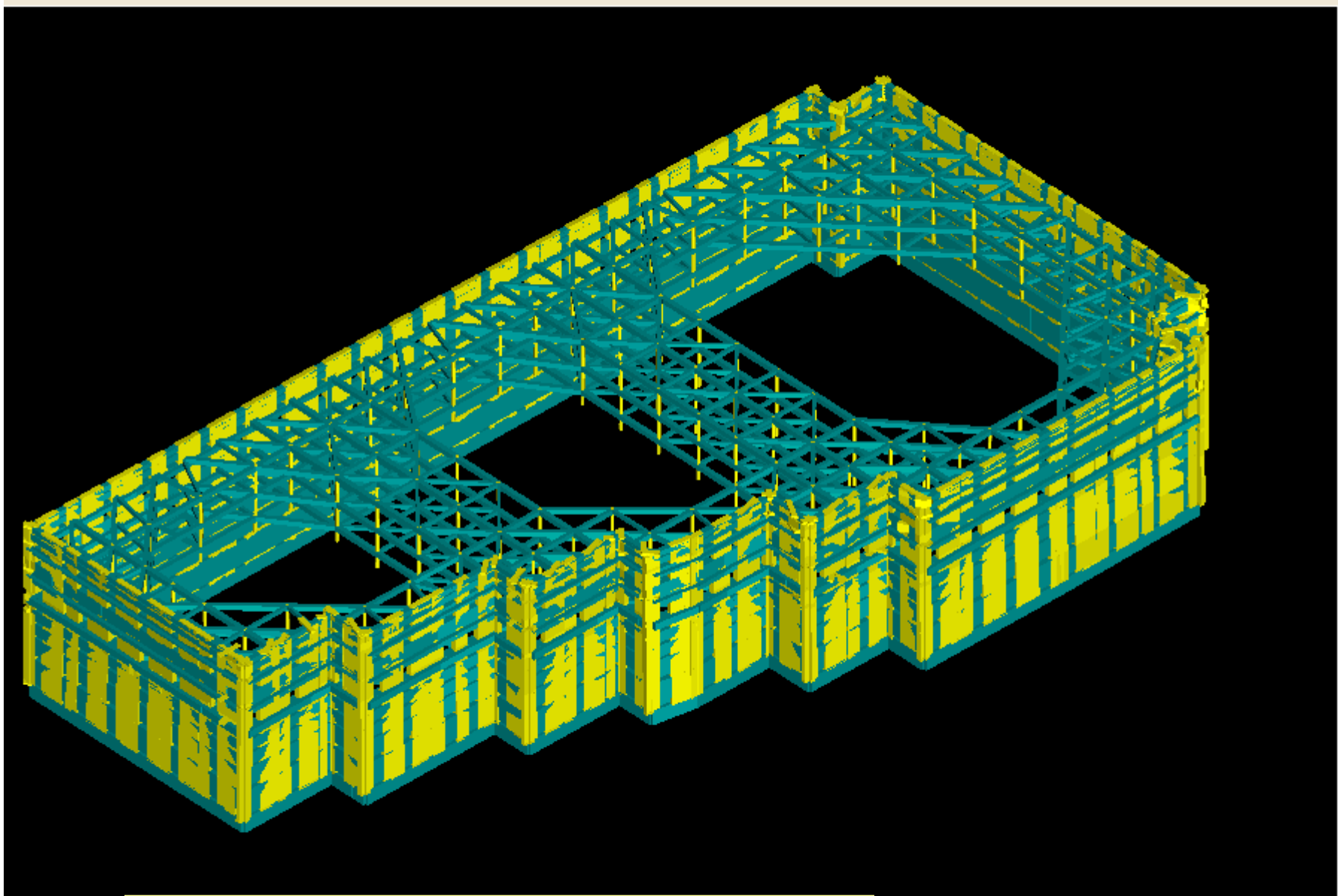
图2 地连墙和内支撑结构位移空间图

图3 地连墙和内支撑结构位移平面图



3

- >> 回前菜
- >> 初始构
- >> 静力位
- >> 位移标



T 输出布局
'Q' 键或者点

Displacement of Pit in 3D



Constructural Site in 3D

基坑

Construction Pit

输入参数：

基坑轮廓

基坑深度

放坡

平台宽度

支护材质和坑底材质

基坑 [X]

基坑序号: [1]

选项:
 放坡开挖
 不放坡

基坑深度 (m): [10]

放坡深度 (m): [2]

放坡比: [2]

平台宽度 (m): [1]

绘制方式:
 选择已有折线生成基坑
 自定义基坑轮廓的折线

生成坡道

支护类型:
排桩
土钉墙
地连墙
水泥土墙桩

坑底土质:
平整后黄土面
未平整黄土面
黑土面
水泥面
钢筋面

预览: [Image showing a construction site with a pit and retaining walls]

取消 确定





塔吊 Crane

输入参数：

塔高

臂长

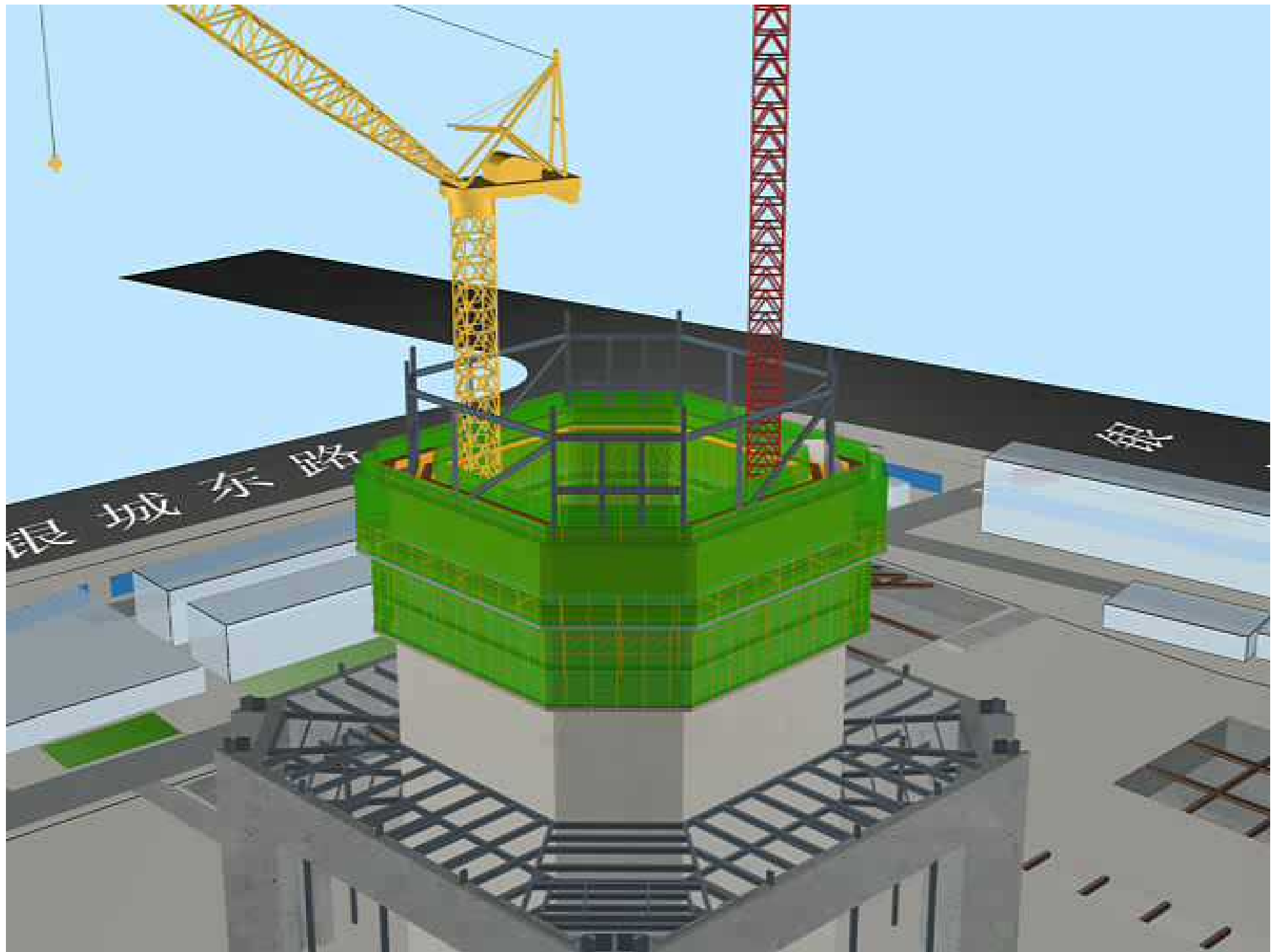
旋转角度

颜色



塔吊参数表	
塔吊编号:	<input type="text"/>
塔吊颜色	<input type="radio"/> 红色 <input checked="" type="radio"/> 黄色 <input type="radio"/> 绿色
截面尺寸 (m):	<input type="text" value="2"/> ->
吊臂角度 (o):	<input type="text" value="90"/> ->
塔高 (m):	<input type="text" value="30"/> ->
臂长 (m):	<input type="text" value="30"/> ->
选项	<input checked="" type="radio"/> 指定插入点 <input type="radio"/> 输入底座坐标
底座坐标	X (m): <input type="text" value="0"/> Y (m): <input type="text" value="0"/> Z (m): <input type="text" value="0"/>
	鼠标指定插入点 >>
	<input type="button" value="退出"/>

Generate Crane, according to a few parameter





Pile work

MIS FOR CONSTRUCTION

- Project management
- Include Plan、 Cost、 Quality、 Savety Control
- Include Contract、 Material、 Site、 Information Manegement

Plan control

用户信息

用户姓名：开发人员

进度管理

签证汇总(总)

- 操作区
 - 快捷功能
 - 快捷导航
 - 帮助
- 进度计划
 - 进度计划查看(分)
 - 进度计划查看(总)
 - 形象进度照片
 - 形象进度照片(分)
 - 形象进度照片(总)
 - 签证管理
 - 签证汇总(分)
 - 签证汇总(总)
 - 开工报告
 - 开工报告汇总(分)
 - 开工报告汇总(总)
 - 竣工报告
 - 竣工报告汇总(总)
 - 竣工报告汇总(分)
 - 工期进度汇总

签证管理

项目名称	<input type="text"/>	施工部位	<input type="text"/>
签字时间	<input type="text"/> 到 <input type="text"/>		
编制年份	<input type="text"/>	编制月份	<input type="text"/>

序号	项目名称	施工部位	变更内容简介	签证时间	工期(日历天)		工程造价(元)		备注
					增加	减少	增加	减少	
1	万光南贺小区(万光府前花园)	垫层	用石子铺路	2007-6-19	0	0	2007.20	0	编号07-001 石子价格暂定为33元/立方
2	万光南贺小区(万光府前花园)	垫层	抽水	2007-7-7	0	0	19443.98	0	07-003
3	万光南贺小区(万光府前花园)	甲方用零工	甲方用零工	2007-7-21	0	0	1848.00	0	07-004
4	万光南贺小区(万光府前花园)	修污水池	修污水池	2007-7-31	0	0	305.47	0	07-005
5	万光南贺小区(万光府前花园)	基槽清理	挖填盲沟	2007-8-7	0	0	5417.56	0	07-006

Contract Management

修改密码 重新登录 关闭

用户信息
用户姓名：开发人员

招投标管理 合同管理 项目基础信息 进度管理 生产管理 成本管理 资金管理 物资管理 设备管理 器材管理 分包方管理 供应商管理 技术管理 质量管理

合同管理

业主合同 -> 合同评审汇总

查询 打印 导出 Excel

工程信息登记

顾客名称	<input type="text"/>	工程名称	<input type="text"/>	拟稿单位	<input type="text"/>
编制年份	<input type="text"/>	编制月份	<input type="text"/>		

序号	顾客名称	拟稿单位	工程名称	建筑面积 (M2)	工程造价 (万元)	结构类型
1	烟台市投资工程建设管理办公室	十建安	毓璜顶医院停车场	3000.00	300.00	
2	烟台市投资工程建设管理办公室	十建安	凤凰西路、双河西路道路排水(一标段)	0	2788.29	市政道路
3	烟台海岸带可持续发展研究所	十建安	烟台海岸带可持续发展研究所科技园区动力站及配套工程	680.00	1400.00	动力站为框剪结构
4	海阳来福士海洋工程装备制造有限公司	六建安	切割预制车间	0	1200.00	
5	海阳来福士海洋工程装备制造有限公司	六建安	厂区一期土建	0	1380.00	
6	威海瑞成置业有限公司	一建安	文登瑞祥家园1#-12#楼	42308.00	2900.00	框架
7	烟台市公安局交通警察支队	十建安	汽车场内道路驾驶考试场地	50000.00	709.02	铺装

操作区

快捷功能

快捷导航

帮助

- 业主合同
- 合同评审新建
- 合同评审
- 合同评审台帐
- 合同评审汇总
- 合同台帐
- 查看业主合同
- 合同台帐汇总
- 履约保证台帐
- 履约保证汇总
- 合同交底新建
- 合同交底下批
- 合同交底下帐
- 合同交底下汇总
- 查看合同交底下
- 补充协议新建
- 补充协议审批
- 补充协议台帐
- 补充协议汇总
- 合同结算台帐
- 合同结算汇总
- 工程竣工决算记录
- 工程竣工决算汇总

合同评审汇总

Internet

Material Management



诚信、诚信强、自強新、创一流

用户姓名：开发人员

物资管理

物资计划管理 -> 月材料需求计划台帐(总)

查询 打印 导出 Excel

操作区
快捷功能
快捷导航
帮助

- 物资计划管理
 - 材料总计划编制(新建)
 - 材料总计划编制
 - 材料总计划台帐
 - 材料总计划台帐(分)
 - 材料总计划台帐(总)
 - 月材料需求计划编制(新建)
 - 月材料需求计划编制
 - 月材料需求计划台帐
 - 月材料需求计划台帐(分)
 - 月材料需求计划台帐(总)
 - 甲方供料计划编制(新建)
 - 甲方供料计划编制
 - 甲方供料计划台帐
 - 甲方供料计划台帐(分)
 - 甲方供料计划台帐(总)
 - 分公司材料集中采购计划编制(新建)
 - 分公司材料集中采购计划编制
 - 分公司材料集中采购计划台帐
 - 分公司材料集中采购计划台帐(总)
 - 集团公司材料集中采购计划(新建)
 - 集团公司材料集中采购计划
 - 集团公司材料集中采购计划台帐
 - 分公司材料总需用计划汇总(明细)
 - 年度全公司材料集中采购计划汇总

材料月度需求计划台帐

工程名称	<input type="text"/>	单据编号	<input type="text"/>
编制年份	<input type="text"/>	编制月份	<input type="text"/>

序号	表单编号	制单日期	分公司名称	工程名称	建筑面积	流程信息
1	yjh001	2007-9-19	一建安	一建安-测试项目	999.0000	审核中...
2	12	2007-12-1	一建安	一建安	12.0000	审核中...
3	ycljh001	2007-12-5	一建安	一建安测试项目	56781.0000	审核中...
4	001	2007-12-14	烟建十公司	烟台火车站改造项目一站房工程	82544.5000	审核中...
5	08022501	2008-2-25	三公司	红旗花园	60000.0000	审核中...
6	2008-006	2008-4-24	六公司	一公司测试项目	58000.0000	审核中...
7	2008-5-1	2008-5-4	烟建集团六公司	六公司	29600.0000	审核中...
8	20080501	2008-5-14	烟建集团第四建安公司	万光府前花园	51361.0000	审核中...
9	20080501	2008-5-14	烟建集团第四建安公司	万光府前花园	51361.0000	审核结束
10	20080502	2008-5-22	烟建集团四公司	万光府前花园	51361.0000	审核中...

Applied nearly at all largest construction enterprises in China

- China State Construction Engrg. Corp.Ltd
- Beijin Construction Group
- Shanghai Construction Group
- China West Construction Group
-

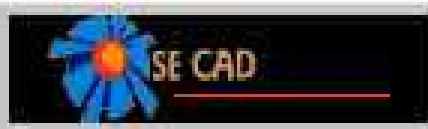


中國建築科學研究院
China Academy of Building Research

PKPM Application Abroad



CAD SOFTWARE OF STRUCTURAL PLAN



- ★ **PMCAD**
- ★ **SATWE**
- ★ **SWALL**
- ★ **PILECAP**
- ★ **QUANTITY**
- ★ **RCMD**

- 1** Input Building Model and Load
- 2** Structure Floor Distribution
- 3** Load Transmission Calculation
- 4** Check Loads
- 5** Draw Loading Plan
- 6** Draw Loading Intensity
- 7** Draw Mesh and Plank
- 8** Draw Plank Shop Drawing
- 9** Draw Facades
- A** Perspective Drawing
- B** Edit and Output of Drawing
- C** Transf AutocadDraw into Model

For Singapore Housing Board, According to British Standard

Capabilities Of SE CAD

- ✧ Window-based interactive input
- ✧ Column load & load intensity computation
- ✧ Design of columns, walls, beams & slabs to CP 65
- ✧ Detailing of columns & beams using prefab cage system
- ✧ Design of rectangular columns for moments
- ✧ Design of Precast Column
 - Design of horizontal joint & splice bars
- ✧ Selection & layout of precast prestressed planks
- ✧ Pile layout & pilecap layout

Capabilities Of SE CAD

Auto-generation of

- ✎ Loading Plan
- ✎ Column Load Intensity
- ✎ In-situ Column Details
- ✎ In-situ Beam Details
- ✎ In-situ Slab Details
- ✎ Precast Prestressed Planks Details
- ✎ Quantity Takeoff
- ✎ RC Wall Details
- ✎ Shear Wall Details
- ✎ Pilecap Layout Plan
- ✎ Precast Beam Details
- ✎ Precast Column Details



For example...

Cooperate with Vietnam Building
Academy to Develop
PKPM Vietnam Version
PKPM-VNBC

Kết cấu

CAD SOFTWARE OF STRUCTURAL PLAN



★ **PMCAD**

★ **SATWE**

★ **DRAW**

★ **RCMD**

1 Sơ đồ kết cấu và tải trọng

2 Vào chi tiết sàn

3 Tính toán truyền tải sàn

4 Kiểm tra tải trọng

5 Vẽ mặt bằng kết cấu

6 Vẽ mặt bằng tải trọng

7 Thống kê

8 Soạn thảo, in ấn, chuyển đổi

9 Bản vẽ phối cảnh

Thư mục hiện tại:

D:\NHA13-06-10\

Đường dẫn

Main Menu of PKPM-VNBC

Close

Help



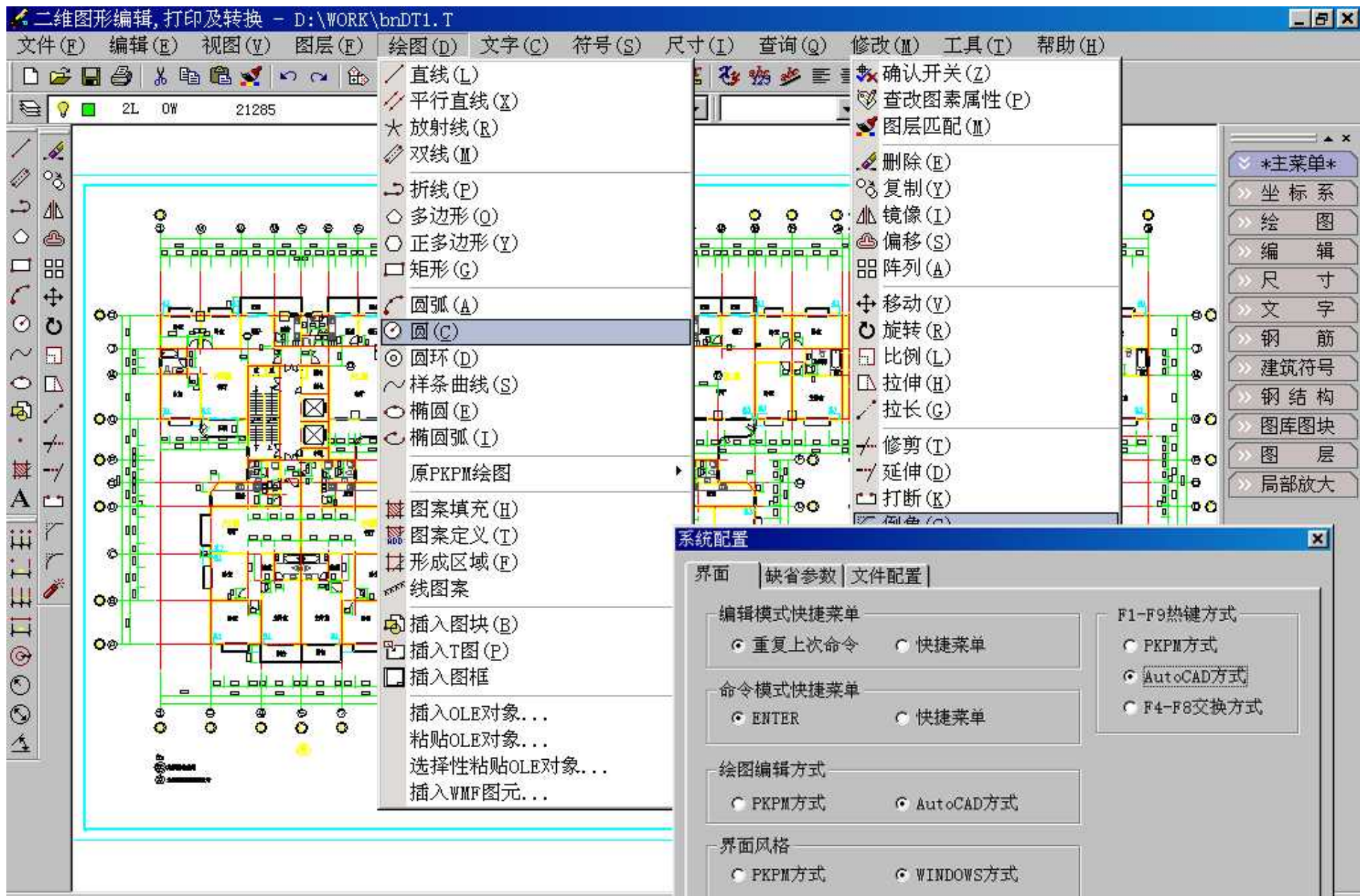


Develop 2D、3D Graphic Platform

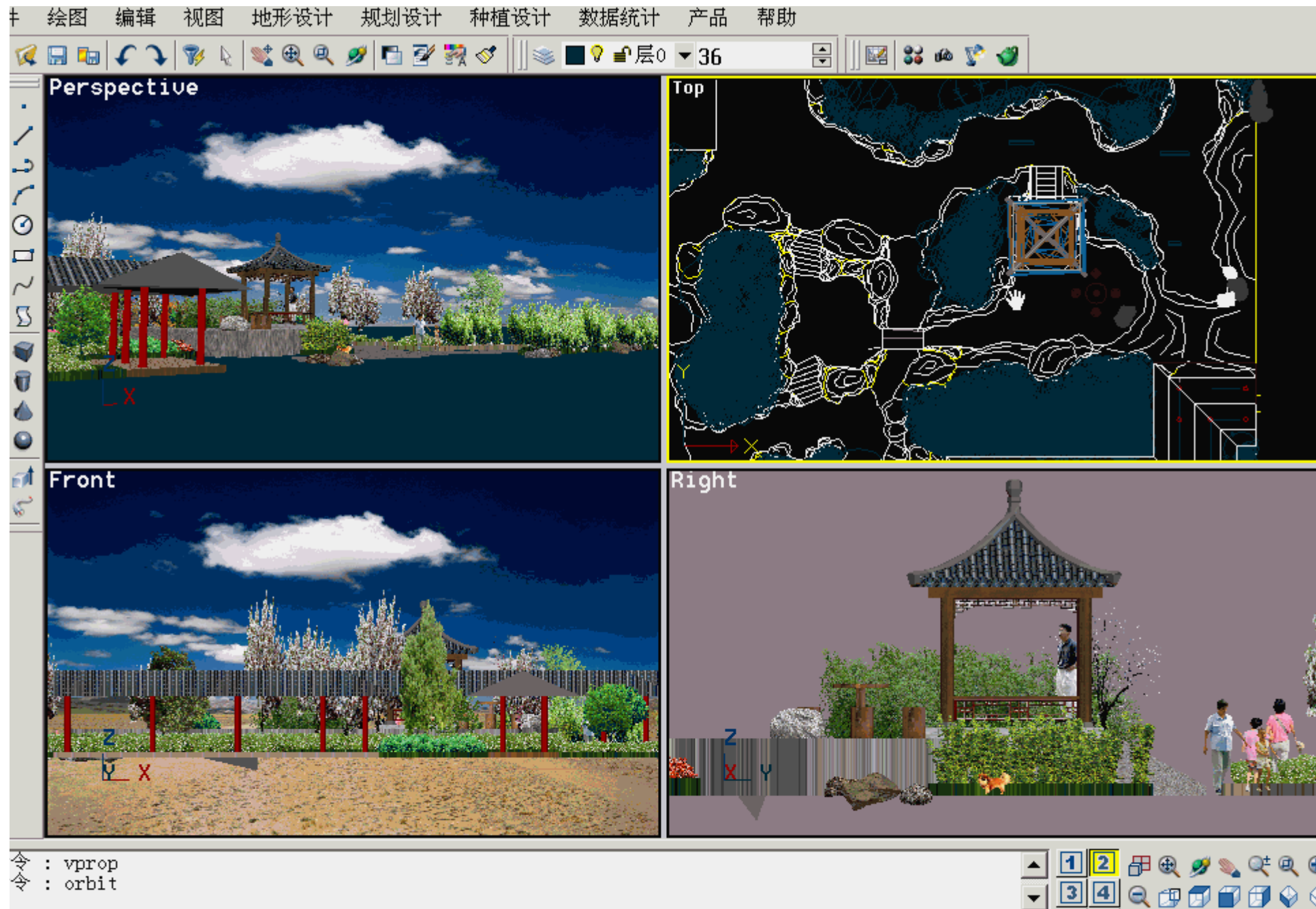
Afford user graphic platform with professional system

Saving the cost for user





Studying Autocad , with similar interface & function



Studying 3DMax、 Skechup , in developing 3D platform

Summary

- Accompanied with Fast Growing of Construction in China
- We faced more and more Challenge work
- We are proud to get more and more achievements



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谢 谢

Thank You

October 2008

