ima is an International Firm with 50 years of Award Winning Planning and Design Projects in:
Project Introduction

• Shenyang Automotive Cultural City
• Shenyang, Liaoning, China
• 3,000 Mu (~500 acres)
• 5th Site in Six Months
Project Introduction

• Large Scale Racing Events
• Racing Activities
• Retail, Dining and Entertainment
• Hospitality
CityEngine Goals

• Explore & test CityEngine on an Large Scale Planning Project
• Develop Best Practices
• Augment Workflows
• Harness Procedural Modeling

Why CityEngine?
• Singapore Urban Redevelopment Authority Project
• Staying Current
Process

• Site Analysis using GIS & Planning Methods
Process

• Preferred Conceptual Plans underwent CityEngine Input
Process

• Diagramming
  • Zoning
  • FAR

• Analysis
  • Shadow Volume
  • Solar Radiation
Process

• **Diagramming**
  • Zoning
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Process

• **Diagramming**
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• **Analysis**
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Constraints

CGA Learning Curve

- Moderate Time Investment Required to Grasp basics
- As design intricacy increases Procedural Generation loses utility
- Sketchup integration is most efficient for small projects / unique design features
Constraints

In-Program Design Limited

• Detailed design hindered within the program
  • Measure Tool
  • Arcs

• Working in tandem with another modeling program is necessary for precision
Benefits

• **Conceptual Massing**
  • Client was able to get a sense of the final product at every stage

• **Infill Studies**
  • Subdivision Algorithms

• **Context**
  • Quick Surrounding Skyline

• **Interoperability**
  • CAD
  • GIS
  • Sketchup
Benefits

• **Procedural Generation is incredibly powerful**

• **3D Modeling Invaluable**
  • Client grasps concepts easily
  • Visuals carry a lot of weight
Conclusion

• **CGA Potential**
  • Command of CGA is necessary to unlock power of CityEngine

• **Workflows need streamlining**
  • Some overlap with conventional programs

• **Top-down Design**
  • Bottom-up Design Utility is expected to increase.