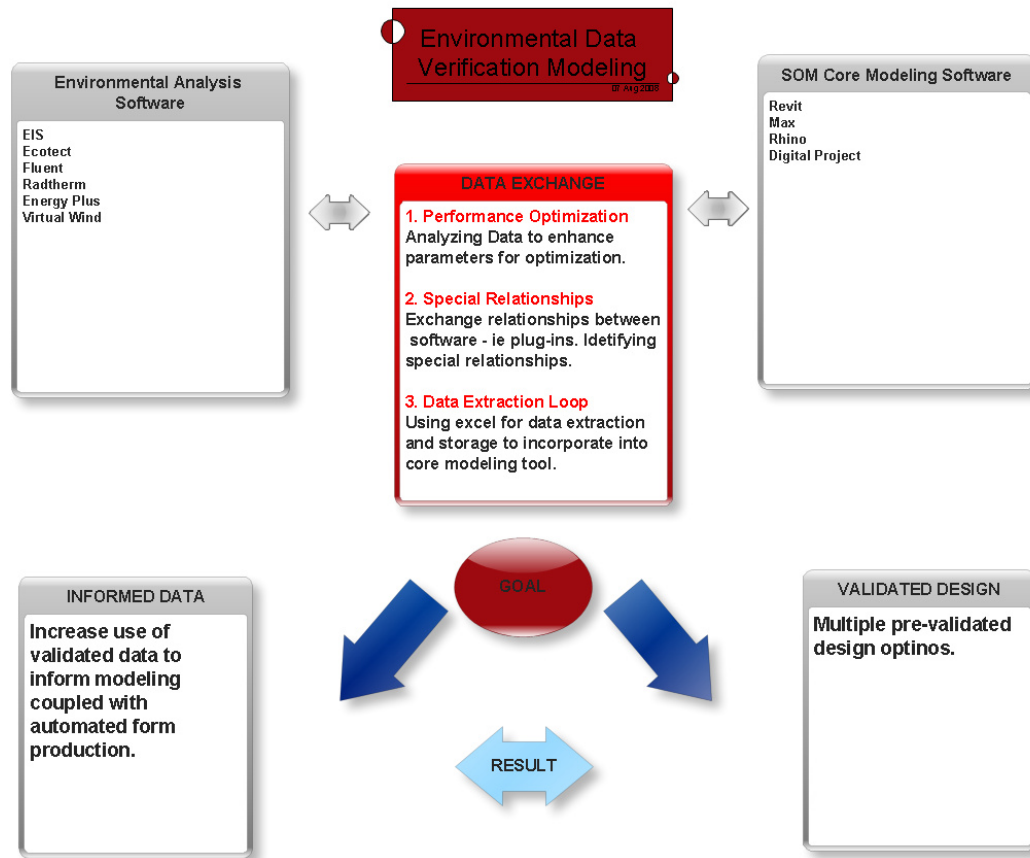


Brief Description

- Analysis of relationship between environmental analysis software and the SOM core modeling tools.
- Disseminate environmental data to standard 3D modeling initiatives.

Environmental Data Verification Modeling Model



Goal

- Investigate best data exchange processes and practices to inform data integration methods.
- **Production Goals**
 - White Paper
 - Documentation
 - Manual
 - Tools

Current Investigations

- Data is currently being generated in our environmental analysis programs.
- Methods for incorporating that data into more core modeling tools



Potential Investigations

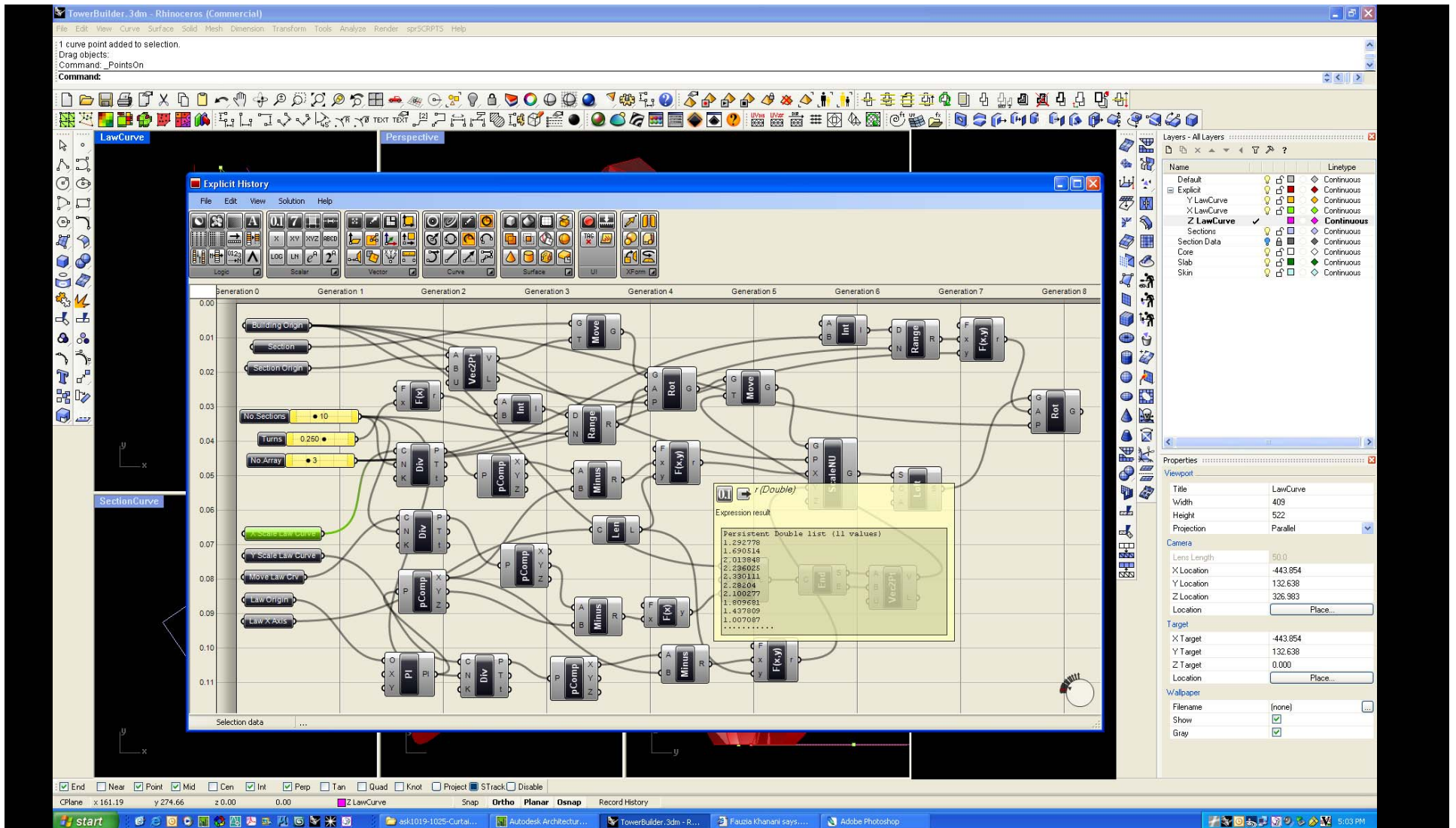
- Environmental factors of design = as a parameter
- Automation as tectonic parameters integrated with scripting
- Automating form through scripts that run environmental data
- Orientation evaluation of form
- Optimizing performance by data analysis

Digital Project – To drive with automated scripts of data in excel from environmental analysis

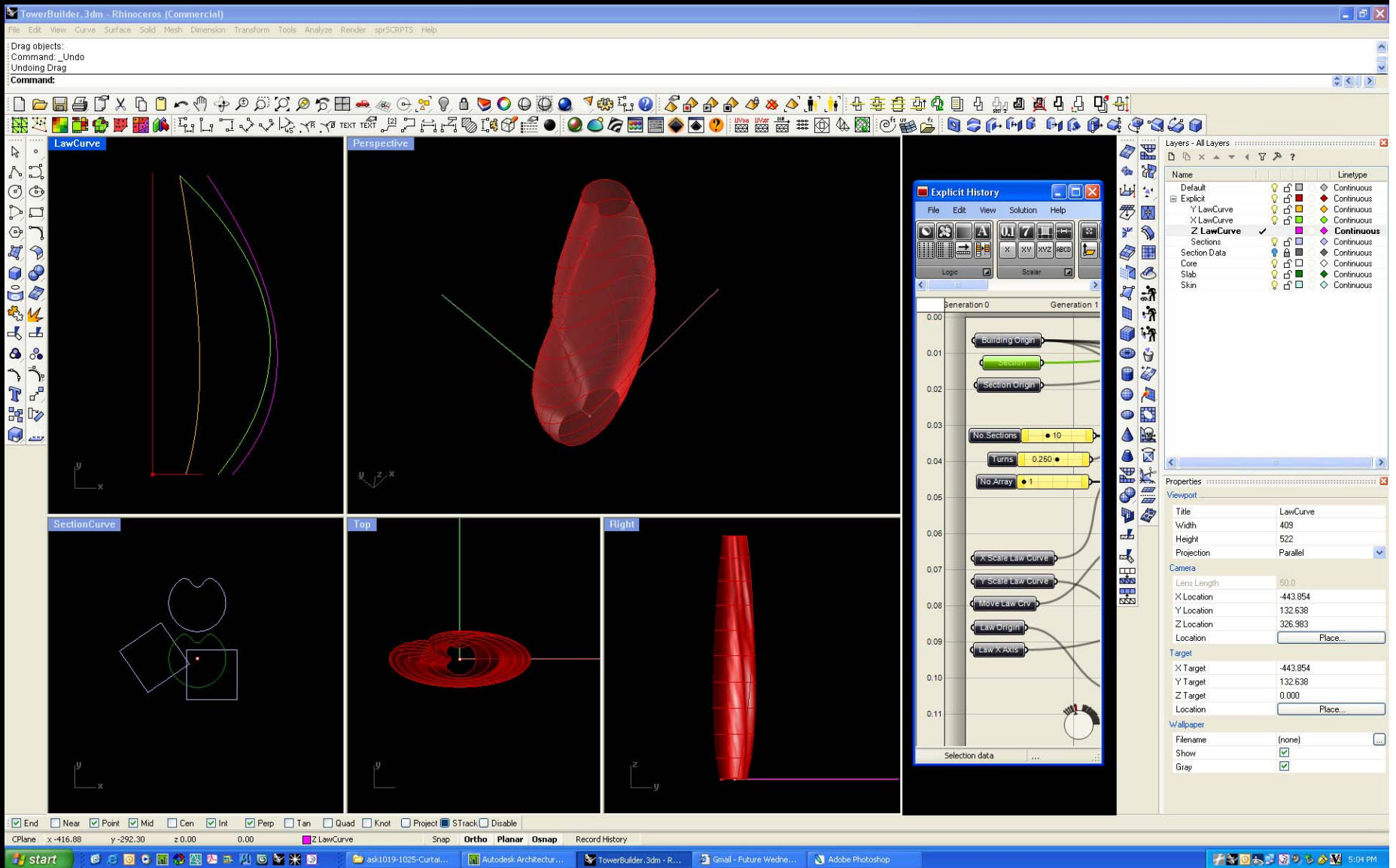
Rhino – Grasshopper

To use push pull mechanisms driven by data generated from environmental software

Revit – To incorporate into database and forms as plug – ins



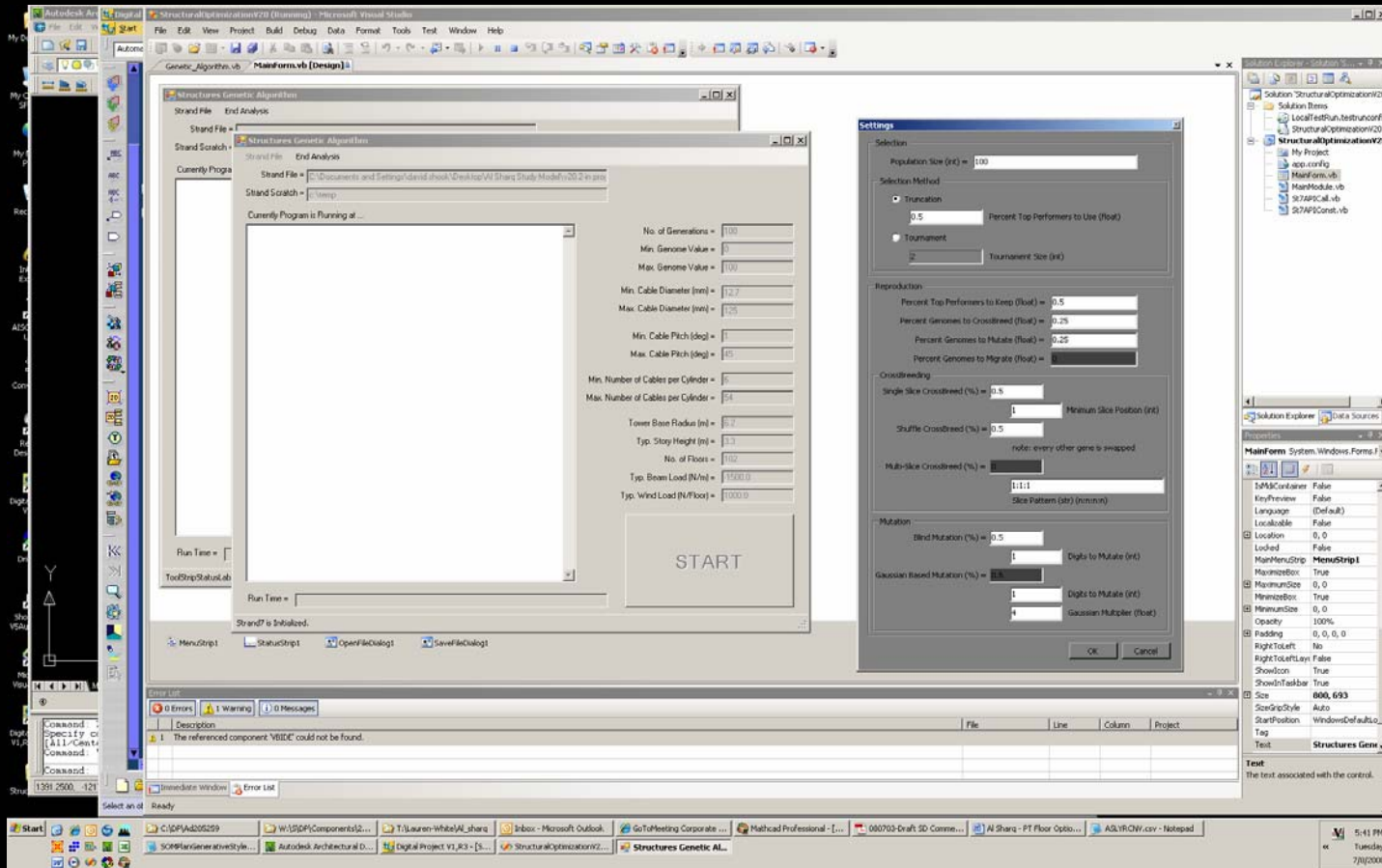
- Exporting of Grasshopper real-time Parametric Modeling Capability
- Bring Geometry Into Digital Project To Add Attributes and Constraint Information



Grasshopper Parametric Tower Form Study To Test Digital Project Process

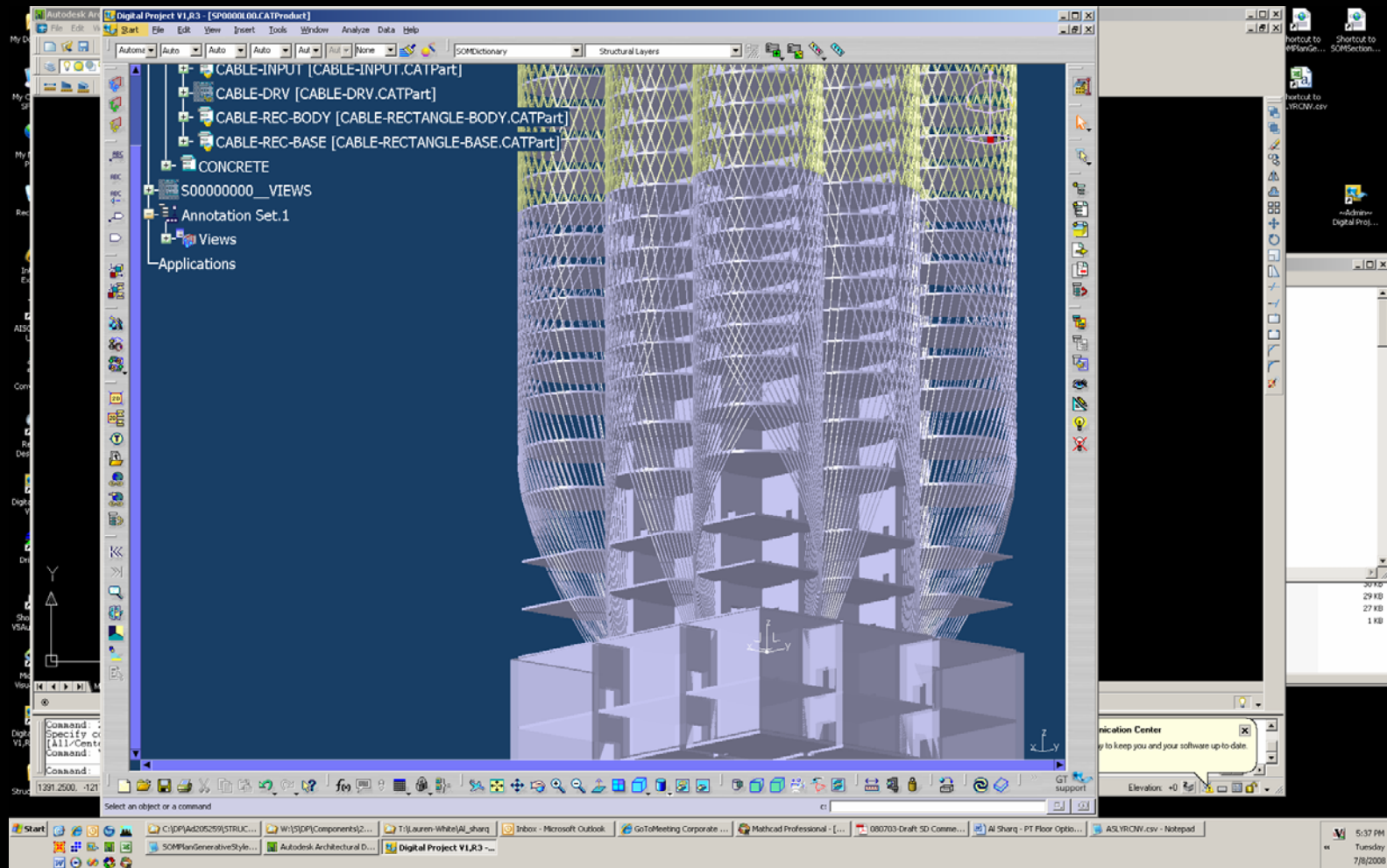
Current Investigations

- AI Sharq – Tools Development, Genetic Algorithm Tool



Current Investigations

- Al Sharq – Parametric Model, Complex Steel Cable System



Goals

- To create and determine a method of best practice for modeling complex buildings using inputs from environmental sources
- Deeper investigation into benefits of real-time Grasshopper integration and information
- To get approval to investigate this tool in greater detail and to apply the tool to a project, if possible