



AGi32 Advanced Class Outline: 3-Day Class

NOTES:

- This outline is for a *3-day* class. The “Day 3” topics are omitted from the 2-day class. This is an *approximate* indication of the order in which the topics will be covered.
- No roadway-specific topics are covered in the Advanced Classes.

DAY 1

- I. Quick Commands and Keyboard Shortcuts
- II. Importing CAD files – Exploring Options
 - 3D: set surface properties
 - 3D: coplanar merging
 - 2D & 3D: curve increment
 - After importing: Translate Origin
 - Troubleshooting
- III. Luminaires Part 1
 - Instabase user account: why this is advisable
 - Instabase searches
 - Luminaire Insertion Point, Luminous Box and Luminaire Symbol: how to avoid problems
- IV. Surface Types
 - Explore all types except roadway
 - Changing from one type to another:
 - Potential effects on calculations
- V. Surface Properties
 - Removed
 - Luminance: numerical value and color
 - Daylight Exterior
 - Color
 - How AGi32 calculates reflectance from RGB values
 - Color Bleed
 - Effect on calculated results
 - Direct Flux Only (as a surface property)
 - Exploring and comparing appearance of opaque, transparent, translucent and luminous surfaces

VI. Textures

- Ways to apply texture (Tiled, stretch, etc.)
- How AGi32 calculates reflectance of Textures
- Custom Textures
- Preview Textures
- Displaying Textures (or not): differences in display uniformity
- Picture frame + Texture: hang it on a wall!

VII. Display Options in Render Mode

- Pseudo Color
- Gray Scale
- Exposure

VIII. Enhancing the Appearance of the Visualization

- Adding Library Objects
 - Adjusting size, colors, textures
 - Placement, orientation
 - Effect on calculations
- Manual meshing
 - How does it work?
 - When can it be helpful?
- Adaptive Subdivision
 - How does it work?
 - When can it be helpful?
 - Automatic in some daylighting

DAY 2

IX. Enhancing the Appearance of the Visualization

- Secondary Sources
 - What are they?
 - When can they be helpful?
- Luminaire Subdivision
 - When does it happen automatically?
 - When to force it?

X. Ray Tracing

- What is it?
- How does it differ from Radiosity?
- Exploring the various Ray Trace options

XI. Luminaires Part 2

- Luminaire Collections
- Creating a custom luminaire symbol
 - Making the new symbol a Smart Symbol
- Custom Luminaire Arrangements
- Luminaire Groups
- Luminaires with color filters
 - How AGi32 calculates transmittance from RGB values
- Show CCT effects
 - Caveats: cannot show color *rendering* with accuracy

XII. Project Manager

- Creating a project
- Transferring entities between projects
- Isolating and combining projects
- Accessing Surface Edit
- Modifying luminaires
- Freezing, locking, protection and passwords

XIII. Scene Manager

- Luminaire Labels
- Create Scenes & Channels
- Assign luminaires to Channels
- Scene Map & Scene Summary (Schedule)

XIV. Exterior Obtrusive Light: Analyzing Glare and Spill

- LEED v4 for site lighting
 - Brief review of the site lighting criteria
 - Setting up the calc grids
 - Compliance

DAY 3

XV. Exterior Obtrusive Light: Analyzing Glare and Spill

- MLO Performance Method, Option B
 - Brief overview of MLO Performance Method (PowerPoint)
 - Setting up the calc grids
 - Compliance

XVI. Dynamic Edit

- Modeling
- Editing

XVII. Calculation Meters

- Exitance Meter
- Virtual Meter
- Where problems can occur

XVIII. Statistical Areas

- Infinite column
- Define in elevation view
- Filtering by project

XIX. Mesopic Concepts and Calculations

- Background info/explanation (PowerPoint)
- Calculations in AGi32
 - Photopic luminance and illuminance
 - “Effective” luminance and illuminance
 - Including in schedules

XX. Animations and Making a Movie

- Two consecutive segments: Fly over and Walk-thru
- Adjusting Walk Speed, adding Pauses, etc.
- Start Frame and End Frame