

# ARCHICAD GDL Scripting Course Outline

## 2- Day BIM Modeling Course



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## Why Train?

GDL is the parametric, geometry-based language, used to create .gsm parametric objects for use in ARCHICAD. It derived from BASIC, using written commands to describe shapes and forms in terms of size and location in X, Y, Z co-ordinates. Forms can be altered according to input by the user along with the ability to turn elements on and off and control loops. GDL can be used for to create 2D symbols for plan or elevation or full 3D objects including building elements such as windows, doors and lights.

## Who is it for?

It has been designed by experts in the field to get you on your way to scripting any kind of object.

## Course Duration

2 days, 9:30am – 4:30pm



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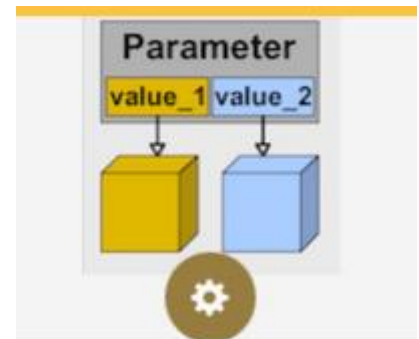
## Course Outline

### Introduction to GDL

- Introduction to the scripting interface and programming organisation
- Introduction to parameter types
- Understanding subtypes
- Basic 2D and 3D commands and “cursor” movement
- Creating a non-parametric object
- Using the preview window
- Adding comments and URL

### Using the 2D Script

- Creating a basic 2D symbol (fragment, project)
- Creating a parametric 2D object
- Attributes (fill patterns, lines and pens)
- 2D polylines and masking
- Creating a stretchy object with hotspots
- Text and labelling
- Dimensioning



### The 3D Object

- 3D polylines, prisms and masking
- Slabs
- Shadow and model commands
- Attributes (materials, textures, section fills and pens)
- Subroutines
- If statements
- For/Next loops
- 3D Hotspots



## Parameter Control and Display

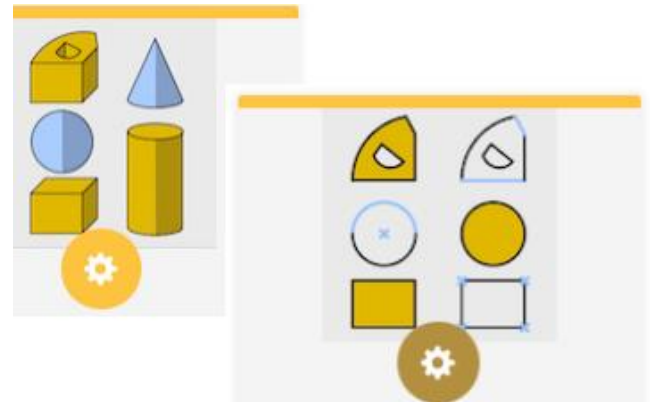
- Cascading and indenting
- Pop-down menus and value lists
- Hiding and locking parameters
- Idiot-proofing
- Using the last modified parameter command

## Curved 3D Objects

- Tubular structures (tubes, cylinders and elbows)
- Using trigonometry
- Bprism, extrude and tube commands
- Controlling curve resolution
- Revolve and curved prism commands

## The Advanced 3D Object

- Putting and getting
- Parameter Arrays
- Ruled, sweep and pyramid commands
- Mesh, mass and coons commands
- Texture Mapping
- Macros and object variation



## Creating Lamps, Windows and Doors

- Using the lamp and opening subtypes
- Attributes (materials)
- Light commands
- Lightworks compatibility
- Wallhole command
- Global variables



## 3D Cutting, Addition and Subtraction

- Cutting planes
- Cutting shapes
- Scripting solid element operations

## User Interface

- Pixels and Margins
- Infield and outfield text
- Infield text with arrays [if Advanced 3D undertaken]
- Hiding, locking and if statements in the UI
- Multiple page interfaces
- Groupboxes and separators
- Images
- Pictorial value lists

## Course Enquiries

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**REGISTER NOW**



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