Tip Sheet

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Graphisoft New Zealand
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Interactive Training Guides (ITG's)

What are ArchiCAD Interactive Training Guides?

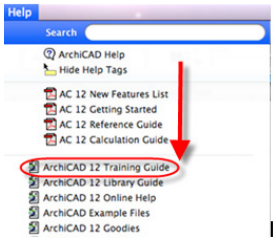
ArchiCAD 12 Interactive Training Guides are an easy way for users to acquaint themselves with ArchiCAD. The interactive training guides run within ArchiCAD and provide a smooth learning curve with their built-in movie guidance feature. After completing all modules of the guides, users will be able to find their way around ArchiCAD with confidence.

ITG's are available for download from the Internet or via DVD (BIM Learning Studio) from Graphisoft New Zealand at a minimal charge. ITG's are available for both Windows and Macintosh platforms.

The Interactive Training Guides available for ArchiCAD 12 are:

- **Experience BIM (Building Information Modelling)** - Using the Frank Lloyd Wright designed Massaro House, this provides a conceptual overview of BIM (overview pages 4-7)
- **ArchiCAD Essentials** - Designing and documenting an office building from scratch, this provides in-depth insight into the functions and working methods of a BIM application (overview pages 8-12)
- **Advanced Modelling** - an introductory guide to advanced modelling techniques for creating complex forms and structures (overview pages 13-16)
- **Advanced Collaboration -** an overview of workflows for project sharing and strategies for team working (pages 17-20)
- **Building Object Creation -** an introduction to GDL object creation methods and techniques (overview pages 21-25)

ITG Download via Internet:



You can download all the Training Guides free-of-charge for both **Macintosh** and **Windows** platforms from http://www.graphisoft.com/products/archicad/training_guides/. Or from within ArchiCAD 12 simply click on the **Help** menu and click on **ArchiCAD 12 Training Guide** which takes you straight to Graphisoft's ITG download web page.

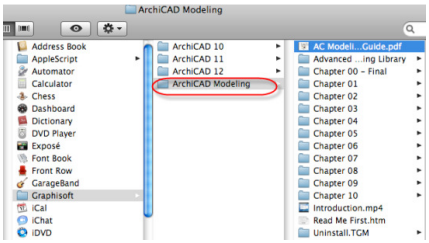
Note: We recommend a high speed internet connection for ITG downloading. If you do not have an internet connection or have a small data cap, you can purchase the BIM Learning Studio DVD from Graphisoft New Zealand.

Installation on Windows: Once the ITG download is complete, just double click the executable (.exe) file and follow the installation wizard.

Installation on MAC: Once the ITG download is complete double click on the .dmg file and follow the installation wizard.

On both platforms, once the ITG is installed, there will be a new folder within the Graphisoft folder bearing the name of the ITG you have installed.

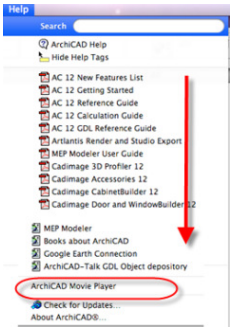
In the example screen shot we have installed the **ArchiCAD Modelling** ITG.



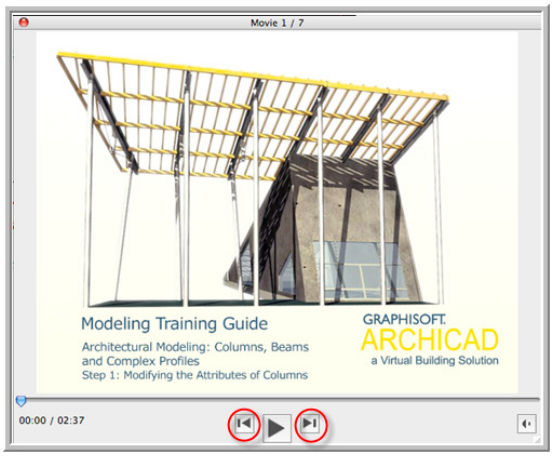
For your reference, watch the **Introduction** video by double-clicking on **Introduction.mp4** in the ITG folder, or simply read the PDF manual. Each Chapter in the ITG has an ArchiCAD (.pla) file and a number of movies. In order to get started, simply open ArchiCAD 12 and click on the **Browse** button, then choose the .pla file from the relevant chapter folder.

If ArchiCAD is already open then go to the **File** menu and click on **Open** and Browse for the .pla from the relevant chapter.

To play the movie guide, go to the **Help** Menu and click on **ArchiCAD Movie Player.**



You can pause the movie after every couple of steps and repeat the steps in the .pla file. To navigate between different movies within the Chapter, click on the arrow buttons as shown in the screen shot:



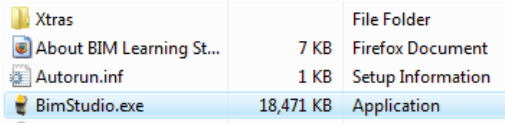
ITG via BIM Learning Studio DVD:

The Interactive Training Guides are part of the resources that make up the 4 gigabytes of content within the **BIM Learning Studio**. As well as the ITG's, the BIM Learning Studio DVD includes:

Free ArchiCAD software	30 day Trial version
Online assessment	15 minute online multiple choice test
Valuable rewards	If you complete an Online Assessment, your name is automatically entered into Graphisoft's monthly draw to win a free ArchiCAD commercial license
ArchiCAD Online	List of online forums and supplementary material websites
Gallery	Pictures of ArchiCAD models created around the world

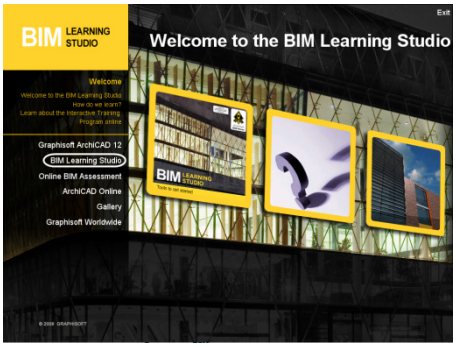
Installation: Insert the BIM Learning Studio DVD into your computer.

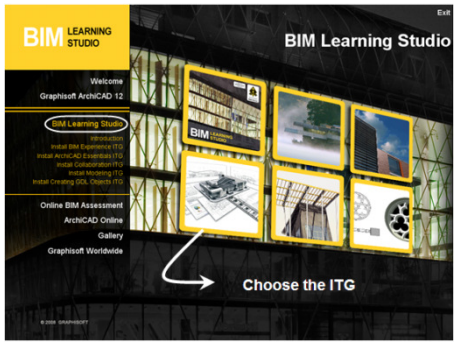
On a **Windows** machine, the start-up screen will automatically appear, if it does not, browse contents of the DVD and run the **BimStudio.exe** file.



On a **MAC** machine, the BIM Learning Studio volume will be mounted on your desktop. Open this volume and double-click on **'BIM Learning Studio'** icon.

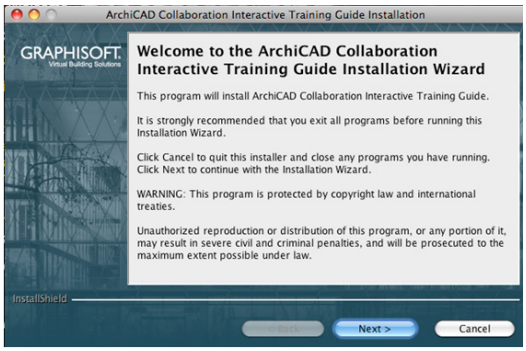
From the BIM Learning Studio start page, click on the **BIM Learning Studio** tab, then choose the **ITG** you wish to install; the temporary installation files will start extracting.





On a **Mac** a new volume will be mounted with the name of the ITG, open this and double-click on the 'ITG named' file, and an installation wizard will appear.

On a **PC** the Installation wizard just appears. On both platforms simply follow the instructions of the installation wizard.



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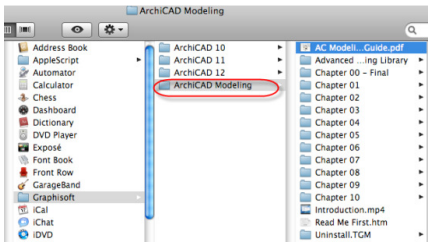

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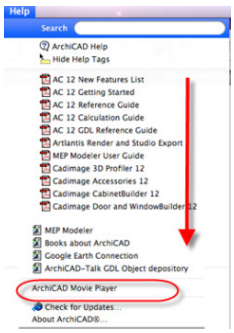
If ArchiCAD is already open then go to the **File** menu and click on **Open** and Browse for the .pla from the relevant Chapter.

To play the movie go to the **Help** menu and click on **ArchiCAD Movie Player.**



You can pause the movie after every couple of steps and repeat the steps in the .pla file. To navigate between different movies within the Chapter, click on the arrow buttons as shown in the screen shot:

BIM Experience Kit

Overview: BIM stands for **Building Information Modelling**. BIM kit provides you with step by step instructions to build the Massaro House, using ArchiCAD's BIM architectural environment. The Massaro House project used for the BIM Experience Kit is unique- a Frank Lloyd Wright design that was built decades after he created his original drawings. It's a great focus for this hands-on experience that allows 2D CAD users to complete an entire building using 3D BIM processes.

Download Size (International English-metric):
MAC OSX - 565MB
Windows - 595 MB
Ideal time for completion: 2-3 Hours

Chapter 01- Introducing the Project, has 3 exercise movies (Steps)

Step 1: Introducing the Building — Time Duration: 1 min 32 sec
- The Massaro House designed by Frank Lloyd Wright

Step 2: Introducing the ArchiCAD BIM environment — Time Duration: 1 min 50 sec
- ArchiCAD's integrated design, documentation environment

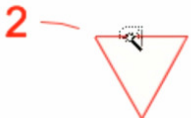
Step 3: Navigating in the Project — Time Duration: 6min 25sec
- Trace and Reference, Favourites palettes
- Navigating between different preset views
- Using Zoom, Pan and Scroll functions
- Interactive Window list

Chapter 02- Creating Walls, has 6 exercise movies (Steps)

Step 1: Creating exterior walls — Time Duration: 7min 15sec
- Creating a new Independent Work sheet
- External drawings
- Trace and Reference
- Exploding the DWG

Step 2: Creating Polygonal Walls — Time Duration: 1min 13sec
- Magic Wand

Step 3: Creating Parapet Walls — Time Duration: 1min 27sec
- Drawing the parapet walls
- Display Order



Step 4: Creating Partition Walls — Time Duration: 1min 01sec
- Drawing Partition walls

Step 5: Creating above-parapet Walls — Time Duration: 55sec
- Creating the parapet walls

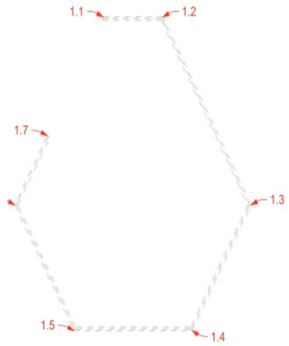
Step 6: Modifying Wall heights — Time Duration: 1min 55sec
- Marquee tool

- Trace and Reference

Chapter 03- Creating Floors and Roofs, has 7 exercise movies (Steps)

Step 1: Creating Floors — Time Duration: 1min 37sec
- Creating all horizontal structures
- Creating the Slabs using the magic wand

Step 2: Creating Roofs — Time Duration: 1min 33sec
- Creating flat Roofs using Slab tool
- Making holes in Slabs



Step 3: Creating above-parapet Walls — Time Duration: 55sec
- Creating parapet walls
- View the model in 3D

Step 4: Creating Skylight roofs — Time Duration: 32sec
- Creating the Skylight roofs.

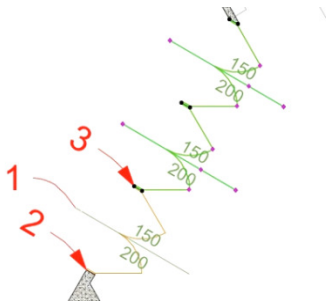
Step 5: Creating Skylight Glasses — Time Duration: 59sec
- Magic wand

Step 6: Creating Skylight roof holes — Time Duration: 1min 13sec
- Cutting holes into the roof.

Step 7: Creating fascias — Time Duration: 1min 19sec
- Creating fascias

Chapter 04- Placing Doors, Windows and Skylights, has 5 exercise movies (Steps)

Step 1: Placing doors — Time Duration: 1min 13sec
- Door settings and all its parameters
- Preview options
- Placing doors on plan



Step 2: Multiplying doors — Time Duration: 1min 49sec
- Multiplying doors

Step 3: Placing Windows — Time Duration: 1min 06sec
- Placing a window , cursor orientation

Step 4: Multiplying Windows — Time Duration: 3min 47sec
- Multiplying windows in plan/elevation view

Step 5: Placing skylight wall windows — Time Duration: 1min 11sec
- Placing some more windows in the wall

Chapter 05- Creating the Model Terrain, has 4 exercise movies (Steps)

Step 1: Creating the Site — Time Duration: 5min 25sec
- Creating a new independent worksheet
- Import a DWG as an external drawing and explode it into current view
- Magic wand the terrain

- Elevate mesh points
- Adding nodes to the contour lines

Step 2: Creating the lake — Time Duration: 29sec

- Magic wanding the mesh

Step 3: Creating rocks and the landing — Time Duration: 1min 27sec

- Space click(Magic wand) on the rocks
- Altering the rocks height

Step 4: Creating the house outline — Time Duration: 1min 15sec

- Creating the mesh
- View the model in 3D

Chapter 06-Creating Stair and modifying the model in 3D, has 3 exercise movies (Steps)

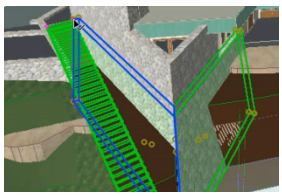
Step 1: Creating stair — Time Duration: 2min 54sec

- Stair selection settings, different types of stairs
- Display order

Step 2: Modifying model in 3D — Time Duration: 4min 59sec

- Solid Element Operations (SEO)
- Performing Solid Element Operations (SEO)
- Modifying the slab materials

Step 3: Placing trees — Time Duration: 1min 35sec



- Gravity to Mesh option
- Placing the trees on the mesh
- View the model in 3D

Chapter 07-Creating Furniture and Interior elevations, has 3 exercise movies (Steps)

Step 1: Placing kitchen furniture — Time Duration: 1min 55sec

- Placing objects
- Turning ON the hidden layer

Step 2: Creating Interior elevations — Time Duration: 51sec

- Interior Elevation tool
- Placing Interior Elevations at the correct depth

Step 3: Editing the model in the Interior elevations window — Time Duration: 2min 05sec

- Opening up the Interior Elevations view
- Performing Solid Element Operation
- Changing the window style in the Interior Elevation

Chapter 08-Creating Documentation, has 7 exercise movies (Steps)

Step 1: Placing Zones — Time Duration: 2min 43sec

- Zone tool
- Adding more parameters under Zone stamp

Step 2: Dimensioning the Building — Time Duration: 2min 07sec

- Dimension tool
- Using Automatic Dimensioning feature
- Placing Automatic Dimensions for all exterior walls

Step 3: Dimensioning Sections — Time Duration: 51sec

- Placing Level Dimensions in the elevation view

Step 4: Fine tuning the model — Time Duration: 2min 15sec

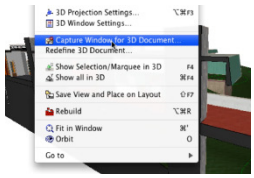
- Cleaning up intersections
- Performing few more Solid Element Operations

Step 5: Referencing other Sections — Time Duration: 1min 21sec

- Placing a section marker
- Linked markers and referencing them

Step 6: Creating worksheets and details — Time Duration: 2min 17sec

- Placing external drawing in the detail window
- Placing a worksheet marker
- Placing a detail marker



Step 7: 3D Documentation — Time Duration: 4min 25sec

- Capturing 3D documentation info
- Adding some dimensions in 3D documentation window
- Adding text, labels in the 3D documentation window

Chapter 09-Creating Photo Rendering, has 1 exercise movie

Step1: Creating Photo rendering — Time Duration: 2min 23sec

- Generating a Sketch render
- Using Lightworks render engine

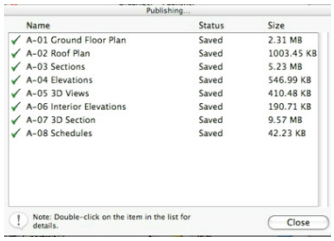
Chapter 10-Creating Layouts and Publishing the project, has 4 exercise movies (Steps)

Step 1: Creating layouts — Time Duration: 3min 38sec

- Layouts and master layout settings
- Creating new master layout
- Inserting 'Auto text' on the master layout

Step 2: Placing views on the layouts — Time Duration: 4min 51sec

- How to bring up the organiser
- Dragging the views on to the layout sheet
- Placing 3D views, section/elevations on to the layouts



Step 3: Creating publisher sets — Time Duration: 1min 20sec

- Making a new publisher set
- Setting publishing properties

Step 4: Publishing — Time Duration: 2min 28sec

- Setting the publishing format

  Merging multiple PDF's to single PDF

Congratulations on successful completion of BIM Experience!!

ArchiCAD Essentials

Overview: The new ArchiCAD Essentials ITG guides you through the creation of a modern office building built in Graphisoft Park, Budapest, Hungary. New ArchiCAD users will be introduced to the core architectural design, design-development and documentation concepts and techniques of ArchiCAD, and will be ready to implement these instantly in their everyday design work. Experienced users will also find this guide useful by learning about the new features of ArchiCAD 12 in action.

Download Size (International English-metric):
MAC OSX - 763MB
Windows - 794 MB
Ideal time for completion: 12-13 Hours

Chapter 01- Introducing the Project has 5 exercise movies (Steps)

Step1: Introduction — Time Duration: 6 min 25 sec

- Screen Resolution recommended -1280X960
- Resizing the movie player window
- Pausing the video and repeating the steps
- We recommend the chapter to be done sequentially

Step 2: Introduction to the Building — Time Duration: 1 min 27 sec

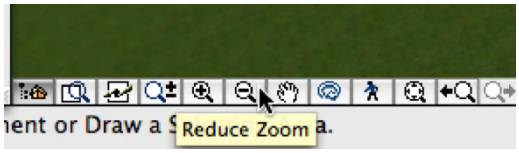
- Location of the project
- History of Budapest
- Designing Microsoft Hungary Head Quarters

Step 3: Introduction to ArchiCAD Environment — Time Duration: 4 min 20 sec

- Tool box, Navigator
- Project Map, View Map, Layout Book, Publisher
- Bringing up the Favourites palette

Step 4: Navigating in the Project — Time Duration: 5 min 50 sec

- View Map navigation
- Pan mode
- Zoom IN/OUT
- Orbit in 3D window
- Combination of Zoom, Pan, Orbiting



Step 5: Working with Stories — Time Duration: 2 min 43 sec

- Story Settings
- Setting up stories
- Going Up/Down a story

Chapter 02- Creating Masses and the Building Structures, has 5 exercise movies (Steps)

Step 1: Creating the masses of the Building — Time Duration: 5 min 10 sec

- Creating main Masses of the building-using Zone tool

Step 2: Creating the Structural Grid — Time Duration: 11 min 15 sec

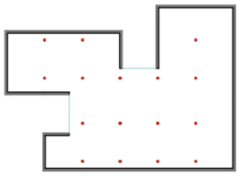
- Grid system Settings

- Grid Element Settings
- Navigating to different stories

Step 3: Creating Exterior Walls — Time Duration: 11 min 12 sec

- Creating Complex Profiles
- Turning the Wall reference line ON/OFF
- Dragging and Extending Walls

Step 4: Editing Columns — Time Duration: 06 min 39 sec



- Deleting Columns
- Drag a Copy(Using Guide Lines)
- Marquee tool

Step 5: Creating Slabs — Time Duration: 10 min 41 sec

- Offsetting Slabs
- Inserting new nodes
- Drag, Rotate, Multiplying Slabs
- Adjusting
- Trimming walls

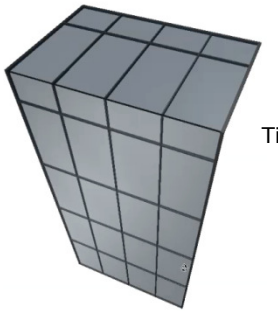
Chapter 03- Creating Curtain Walls and Exterior Openings, has 5 exercise movies (Steps)

Step 1: Creating Openings — Time Duration: 3min 30sec

- Adding empty window openings
- Going UP/Down stories

Step 2: Creating window Curtain Walls — Time Duration: 3min 04sec

- Curtain Walls settings and Dialog boxes
- Drawing a Curtain wall



Step 3: Creating Curtain Walls — Time Duration: 13min 30sec

- Placing Curtain Walls
- Editing Curtain Walls in 3D
- Navigating in 3D window
- Deleting frames from existing Curtain wall

Step 4: Exploring 3D view options — Time Duration: 2min 22sec

- Difference between Open GL and Internal 3D engine
- Vectorial 3D hatching, Sun shadows in Internal 3D engine

Step 5: Placing external Doors — Time Duration: 3min 42sec

- Placing doors on plan
- Multiplying doors in 3D window
- Elevating doors in 3D window

Chapter 04- Creating Interior Walls and Openings, has 3 exercise movies (Steps)

Step 1: Creating Interior Structural Walls — Time Duration: 16min 51sec

- Suspend groups
- Snap points
- Multiply doors in 3D
- Placing some Stairs

Step 2: Creating Interior partition walls — Time Duration: 4min 14sec

- Creating some more walls
- Drag multiple copies

Step 3: Placing Interior door openings — Time Duration: 7min 21sec

- Placing some doors on the plan
- Snap grid and Nudge feature

Chapter 05- Solid Element Operation, creating Objects and Terrains has 3 exercise movies (Steps)

Step 1: Solid Element Operation (SEO) — Time Duration: 7min 33sec

- SEO dialog box
- Cutting holes in the slabs
- Filtering elements in 3D window

Step 2: Placing objects — Time Duration: 15min 10sec

- Special snap points
- Placing columns, beams
- Placing Railing and Ramp objects
- Turning OFF True Line Weight

Step 3: Creating the Terrains — Time Duration: 4min 05sec

- Creating a mesh
- Cutting holes in the mesh
- Placing Ramp objects

Chapter 06- Creating Zones, Sections and Elevations, has 3 exercise movies (Steps)

Step 1: Creating the Zones — Time Duration: 7min 21sec

- Zone settings, Zone stamps
- Placing Zones on the plan
- Display order
- Updating Zones

Step 2: Creating Sections/Elevations — Time Duration: 17min 21sec

- Section settings dialog boxes
- Placing a section line
- Break section/elevation line
- Placing elevation
- Mark Distant Area, Story level lines
- Grid Display
- SEO to correct intersections

Step 3: Creating Interior Elevations — Time Duration: 3min 26sec

- Placing Interior Elevations

Chapter 07- Creating Dimensions, Schedules and Partial Structure, has 3 exercise movies (Steps)

Step 1: Creating Dimensions — Time Duration: 8min 48sec

- Placing Linear Dimensions
- Placing Automatic Dimensions

Step 2: Creating Schedules — Time Duration: 5min 44sec

- Door schedules
- Schedule and format options

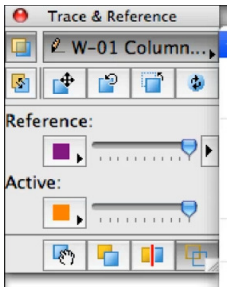
Step 3: Partial structure Display — Time Duration: 9min 07sec

- Complex profiles
- Partial Structure display dialog
- Clone folders
- Publishing to DWG format

Chapter 08- Creating Drawings, Worksheets and 3D Documents, has 4 exercise movies (Steps)

Step 1: Importing Details — Time Duration: 2min 52sec

- Creating Independent Detail
- Importing External DWG into ArchiCAD



Step 2: Using Trace Reference — Time Duration: 7min 50sec

- Trace and reference palette
- Creating Independent Worksheet
- Virtual compare-splitters

Step 3: Creating 3D Document — Time Duration: 12min 09sec

- 3D documentation settings dialog
- Creating a new 3D document view
- Dimensioning in 3D documentation window

Step 4: Cross referencing Markers — Time Duration: 6min 25sec

- Section selection settings
- Linked and Unlinked Markers

Chapter 09- Creating Presentation Images, has 2 exercise movies (Steps)

Step 1: Creating Fills — Time Duration: 13min 08sec

- Fill selection settings
- Translucent fills
- Make new Fill type
- Display order

Step 2: Presentation Renderings — Time Duration: 6min 56sec

- 3D window settings
- Photo render settings
- Lightworks, Sketch rendering engine

Chapter 10- Layouting and Publishing the Project, has 3 exercise movies (Steps)

Step 1: Creating Layouts — Time Duration: 12min 40sec

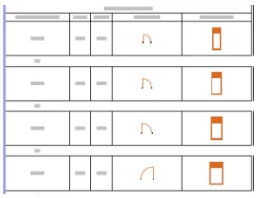
- Creating master layouts
- Inserting Auto text
- Placing figures on the master layout
- Layout settings Dialog box

Step 2: Placing Views on the Layout

Time Duration: 7min 09sec

- Organizer
- Placing views onto the layout sheets
- Master Layout settings-Grid setup

Step 3: Publishing the project



Time Duration: 4min 48sec

- Publisher set
- Publishing properties
- Format

Congratulations on successful completion of ArchiCAD Essentials ITG!

Modeling

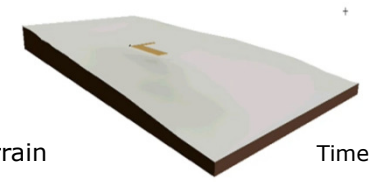
Overview: The Modeling Training Guide covers the following topics: Generic modeling: basic volumes and shapes; Architectural modeling: structural grids, terrains, slanted- and composite walls, columns, beams, stairs and roofs; Special openings, Special constructions.

Download Size (International English-metric):
MAC OSX – 633 MB
Windows - 663 MB
Ideal time for completion: 6-7 Hours

Chapter 1- Architectural Modeling: Terrains, has 4 exercise movies (Steps)

Step 1: Customising the Mesh Parameters — Time Duration: 1min 41sec
- Mesh selection settings dialog box

Step 2: Creating Mesh from External 2D drawing — Time Duration: 4min 47sec
- Importing DWG file into ArchiCAD
- Creating contour lines
- Setting up Mesh point Height



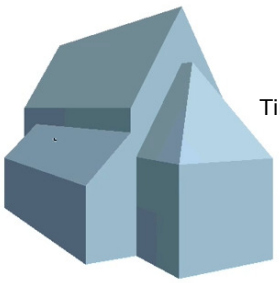
Step 3: Creating a Plateau Slab on the Terrain — Time Duration: 1min 41sec
- Putting a slab on the mesh
- Magic wand

Step 4: Adding a sloping road to the Project — Time Duration: 2min 58sec
- Cutting a hole in the mesh
- View the 3D model in Internal Engine-wireframe mode

Chapter 2- Using Solid Element Operations (SEO), has 4 exercise movies (Steps)

Step 1: Creating 3D Form of a Church — Time Duration: 3min 15sec
- Placing some Basic shape objects-Elementary geometric shapes

Step 2: Adding the Choir and Aisles Volume — Time Duration: 2min 07sec
- Placing multiple roofs-hipped, plain



Step 3: Creating a Bell Tower — Time Duration: 5min 22sec
- Finding library parts
- Performing Solid Element Operation
- Saving a new view

Step 4: Completing the 3D Form of the Church — Time Duration: 5min 43sec
- Using Multiply, Elevate options
- Performing some more SEO's

Chapter 3- Architectural Modeling: Structural Grid, has 3 exercise movies (Steps)

Step 1: Creating a New Structural Grid Column, Beam & Dimensions
- Grid systems dialog box settings — Time Duration: 3min 42sec
- Placing Grid Element

- Adding columns at every intersection

Step 2: Adding a second Structural Grid Time Duration: 1min 52sec

- Grid Elements settings dialog box

Step 3: Modifying the Structural Grid's Elements Time Duration: 3min 17sec

- Rotating grid element
- Locking the layer

Chapter 4- Architectural Modeling: Columns, Beams and Complex Profiles, has 7 movies (Steps)

Step 1: Modifying the Attributes of Columns Time Duration: 2min 36sec

- Deleting some columns
- Eye dropper-Pick up and Inject parameters

Step 2: Placing Circular Slanted Columns Time Duration: 1min 19sec

- Column settings dialog box info
- Setting up the slant angle

Step 3: Creating New Complex Profiles for Construction Elements

- Creating a new Complex Profile and saving it Time Duration: 2min 06sec

Step 4: Placing Profiled Columns Time Duration: 1min 44sec

- Choosing Complex Profile option from Column settings

Step 5: Creating Inclined Beams and Defining Intersection Priority of Beams & Columns

- Placing new Beam on plan Time Duration: 3min 09sec
- Setting up Beam priority

Step 6: Defining Holes in the Beam Time Duration: 2min 55sec

- Inserting holes in the beam

Step 7: Adding an ArchiCAD Object to the Structure Time Duration: 3min 41sec

- Placing some beams vertically using guide lines
- Drag multiple copies of beams

Chapter 5- Architectural Modeling: Walls-Slanted Walls/Composite Walls, has 6 movies (Steps)

Step 1: Creating and Editing Straight and Slanted Wall Time Duration: 4min 01sec

- Placing a slanted wall
- Stretching the slanted wall in 3D window

Step 2: Wall Priorities and Layer Intersection-Group Number Functionality

Time Duration: 1min 19sec

- Layer settings dialog box info-turning the layers ON/OFF

Step 3: Creating new Composite Structure for Walls Time Duration: 2min 28sec

- Creating a new Wall composite Structure
- Drag multiple copies of beams

Step 4: Using the Modify Wall Command Time Duration: 3min 08sec

- Adding 'Modify Wall' option under Design menu using Work environment dialog box

Step 5: Drawing a Double-Slanted Wall — Time Duration: 4min 02sec

- Creating Double-slanted icon in geometry and positioning

Step 6: Creating and Editing a Profiled Wall — Time Duration: 3min 38sec

- Creating a new Complex profiled wall

Chapter 6- Architectural Modeling: Roofs, has 5 exercise movies (Steps)

Step 1: Creating a Simple Roof in 3D — Time Duration: 3min 23sec

- Placing roof in 3D window

Step 2: Trimming Walls and Columns to the Roof — Time Duration: 3min 48sec

- Performing 'Trim to Roof' operation on Columns and Walls

Step 3: Creating a Polyroof — Time Duration: 2min 03sec

- Creating a Polyroof using polygonal geometry method

Step 4: Creating a New Barrel-Vaulted Roof on the Floor Plan — Time Duration: 2min 29sec

- Choosing Barrel –Vaulted geometry method
- Placing a Barrel-Vaulted Roof

Step 5: Constructing an Irregular Barrel-Vaulted Roof in 3D — Time Duration: 1min 54sec

- Explains how to place a Barrel-Vaulted Roof in 3D window

Chapter 7- Special Constructions: Special Openings-skylights/Corner Windows, has 5 (Steps)

Step 1: Creating Special Windows — Time Duration: 3min 54sec

- Placing Special window 12

Step 2: Customising and Placing a Storefront Door — Time Duration: 2min 16sec

- Placing Storefront door on the plan

Step 3: Creating an Empty Opening — Time Duration: 2min 22sec

- Placing multiple Empty Opening windows

Step 4: Placing a Skylight Object — Time Duration: 3min 31sec

- Placing Skylight top hung object on the plan

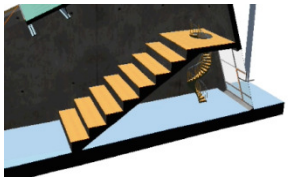
Step 5: Adding Entrances to the Project — Time Duration: 1min 41sec

- Placing Custom entrance door on the plan

Chapter 8- Architectural Modeling: Stair, has 4 exercise movies (Steps)

Step 1: Adjusting and Placing an Existing Stair Object — Time Duration: 2min 40sec

- Placing Stair Spiral Object on the plan
- Cutting a circular hole in the slab



Step 2: Creating a New Stair Case — Time Duration: 2min 43sec

- Creating New Stair Case option

Step 3: Creating Stair with the Profile Manager — Time Duration: 2min 09sec

- Creating new complex profile

Step 4: Create Stair using Selection Time Duration: 4min 02sec

- Creating the Stair using Stair Maker

Chapter 9- Special Constructions-TrussMaker, has 2 exercise movies (Steps)

Step 1: Creating a Truss from Rolled Steel Profiles Time Duration: 6min 01sec

- Select the Truss element and use the Trussmaker command available Design>Design extras>Trussmaker

Step 2: Terminating the Building Structure Time Duration: 1min 52sec

- Performing Solid Element Operations

Chapter 10- Special Constructions-RoofMaker, has 2 exercise movies (Steps)

Step 1: Using the Roof Wizard Settings Time Duration: 3min 11sec

- Go to Design>Design extras>Roofmaker and bring up the Roof wizard command
- Edit the parameters in Roof Wizard Settings dialog box

Step 2: Modifying Elements of the Roof Structure Time Duration: 2min 52sec

- Add some Purlins to the roof using the Roofmaker

Congratulations on successful completion of Modeling ITG!!

Collaboration

Overview: This ITG module gives an overview of workflows for project sharing and strategies for team working.

Download Size (International English-metric):
MAC OSX –673 MB
Windows -703 MB
Ideal time for completion: 6-7 Hours

Chapter 01-DWG, DXF export and import, has 3 exercise movies (Steps)

Step 1: Setting up DWG, DXF Translators — Time Duration: 5min 08sec

- Translator set up dialog
- Different types of translators

Step 2: Collaboration using DWG, DXF files — Time Duration: 7min 41sec

- Saving the view in DWG format
- Exporting the DWG to AutoCAD
- Smart Merge Options
- Importing the finished plan from AutoCAD to ArchiCAD
- Merge file

Step 3: Creating a new ArchiCAD object from a DXF file — Time Duration: 5min 44sec

- Importing 3D DXF files
- Saving as a .gsm object

Chapter 02-PDF export and import**,** has 2 exercise movies (Steps)

Step 1: Adding external PDF documents to the Layout Book — Time Duration: 3min 24sec

- Place External Drawing
- Drawing Manager

Step 2: Publishing the Layout Book as a PDF document set — Time Duration: 3min 57sec

- Creating new Publisher set
- Merge to one PDF
- Publishing to PDF format

Chapter 03-Universal 3D support**,** has 3 exercise movies (Steps)

Step 1: Creating a simple computer workstation design — Time Duration: 7min 15sec

- Finding library part
- Gravity tool

Step 2: Placing the design views on layouts — Time Duration: 3min 10sec

- Placing the drawing on the layout
- Saving the 3D view in .U3D file format

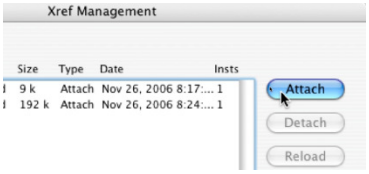
Step 3: Publishing a 3D PDF from ArchiCAD — Time Duration: 5min 39sec

- Publishing U3D PDF
- Rotate, Pan, Zoom in Adobe Acrobat

Chapter 04-External reference files (XREFs)**,** has 3 exercise movies (Steps)

Step 1: Attaching XREFs to the project — Time Duration: 4min 19sec

- XREF settings dialog box
- Attaching XREF file
- Layers



Step 2: Managing XREFs — Time Duration: 4min 13sec

- XREF Manager dialog box
- Attaching XREF file
- Detaching XREF

Step 3: Nested External Reference Files — Time Duration: 5min 25sec

- XREF management

Chapter 05-Project Hotlinks**,** has 3 exercise movies (Steps)

Step 1: Hotlinked drawings in the Model View — Time Duration: 3min 57sec

- Placing DWG's as External Drawings
- Placing PDF's as External Drawings

Step 2: Hotlinked drawings in the Layout Books — Time Duration: 7min 26sec

- Placing External Drawings on the Layout Book
- Drawing title

Step 3: Updating and managing Project Hotlinks — Time Duration: 3min 00sec

- Drawing manager dialog box
- Updating the drawings

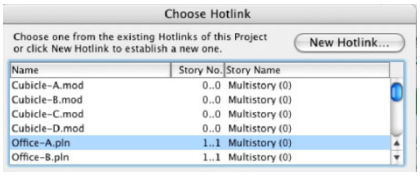
Chapter 06-Hotlinked Modules**,** has 5 exercise movies (Steps)

Step 1: Relocating hotlinked modules — Time Duration: 6min 12sec

- Hotlink manager dialog box

Step 2: Getting familiar with hotlinked modules — Time Duration: 3min 25sec

- Hotlinks Sources
- Editing module in separate instance of ArchiCAD



Note: There is no Video for Step 3

Step 4: Updating hotlink modules — Time Duration: 1min 47sec

- Updating Hotlinks Sources

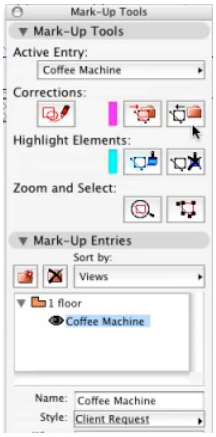
Step 5: Adding new hotlinked modules to the project — Time Duration: 5min 27sec

- Adding more modules
- Drag multiple copies

Step 6: Managing hotlinked modules — Time Duration: 2min 24sec

- Relinking the modules
- Hotlink Manager- hierarchy structure

Chapter 07-Project Mark-up**,** has 2 exercise movies (Steps)



Step 1: Creating a new Mark-Up entry — Time Duration: 5min 21sec

- Creating new Mark-Up styles
- Mark-Up tools settings
- Redline cloud

Step 2: Managing Mark-Up entries — Time Duration: 6min 47sec

- Show/Hide –Tag text
- Highlight elements
- Remove corrections
- Zoom and Select

Chapter 08-Project Reviewer**,** has 3 exercise movies (Steps)

Step 1: Publishing a design documentation set to the Internet — Time Duration: 4min 45sec

- Publishing methods-Upload to internet
- Sending an email to the client

Step 2: Reviewing the design set using an Internet browser — Time Duration: 7min 48sec

- Graphisoft project reviewer
- Redlining and correction

Step 3: Working with external DWF mark-up files in ArchiCAD — Time Duration: 3min 13sec

- New Mark-up entry
- Reviewing the corrections

Chapter 09-TeamWork**,** has 5 exercise movies (Steps)

Step 1: Setting up a Teamwork project — Time Duration: 4min 53sec

- Assigning user name and passwords
- Creating a shared ArchiCAD design project (.plp)
- Backup Options

Step 2: Signing–In to Teamwork project — Time Duration: 5min 08sec

- Signing in to Teamwork project
- Teamwork Draft file (plc)
- Send and Receive changes

Step 3: Reserving Workspaces in Teamwork project — Time Duration: 4min 02sec

- Work space allocation
- Send and Receive changes

Step 4: Working in Teamwork environment — Time Duration: 7min 30sec

- Project Sharing Info
- Mark-Up tool corrections

Step 5: Collaborating in TeamWork environment — Time Duration: 3min 22sec

- Get Mark-Up Entries
- Making changes

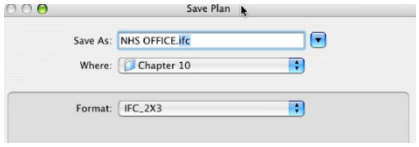
Chapter 10-IFC: Industry Foundation Classes**,** has 3 exercise movies (Steps)

Step 1: Working with IFC TreeView — Time Duration: 7min 15sec

- IFC entry in Tool settings dialog box
- IFC TreeView dialog box

Step 2: Exporting an ArchiCAD project in IFC format — Time Duration: 7min 42sec

- Editing composite structures
- Partial structure display
- IFC 2x Edition 3 Options dialog box

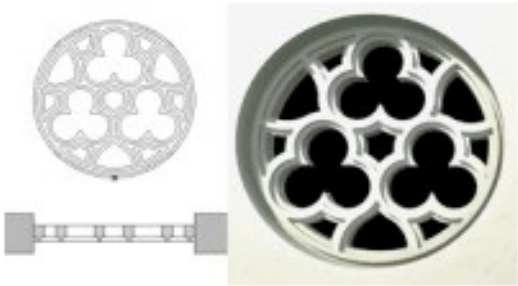


Step 3: Importing an IFC database to ArchiCAD — Time Duration: 2min 23sec

- Importing IFC 2X3 file into ArchiCAD

Congratulations on successful completion of Collaboration ITG!!

Building Objects Creation



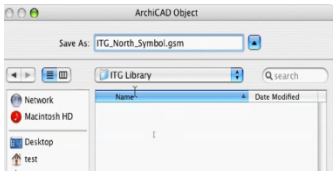
Overview: The Building Objects Creation Training Guide covers basic and advanced GDL scripting.
Saving 2D symbols and 3D models as GDL objects;

Download Size (International English-metric):
MAC OSX – 746 MB
Windows - 776 MB
Ideal time for completion: 10-12 Hours

Chapter 01-Saving 2D symbols from the Floor Plan, has 5 exercise movies (Steps)

Step 1: Creating the Symbol — Time Duration: 1min 24sec

- Creating a 2D North Point symbol using Lines, Fills, Circle tools



Step 2: Saving the Object — Time Duration: 53sec

- Saving as a .gsm object

Step 3: Checking the Result — Time Duration: 1min 51sec

- Placing the object on the plan

Step 4: Final Touches — Time Duration: 2min 35sec

- Adding comments to the object
- Opening the GDL Master window

Step 3: Using the 2D symbol View — Time Duration: 3min 15sec

- GDL 2D scripting window
- Adding some hotspots to the object

Chapter 02-Saving 3D symbols from the Floor Plan as GDL objects, has 4 exercise movies (Steps)

Step 1: Overview — Time Duration: 1min 16sec

- Info regarding Alvar Alto's Double Coffee Table

Step 2: Modelling — Time Duration: 5min 03sec

- Drawing the Coffee Table in 2D using Slab, Wall, Column tools

Step 3: Creating the GDL Object — Time Duration: 2min 32sec

- Check the 2D model in 3D window
- Save 3D model as .gsm object

Step 4: Editing the GDL Object — Time Duration: 7min 05sec

- Open Object-2D symbol editing
- Preview Picture for a library object

Chapter 03-Adding Material parameters to library parts, has 5 exercise movies (Steps)

Step 1: Overview — Time Duration: 36sec

- Info regarding Alvar Alto's PAIMIO Chair

Step 2: Modelling — Time Duration: 7min 01sec

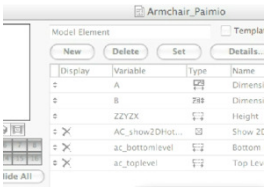
- Drawing the PAIMIO chair using Slab tool
- Creating Frame, Bracing of the chair

Step 3: Creating the GDL Object — Time Duration: 3min 53sec

- Check the 2D model in 3D window
- 3D Projection settings
- Save 3D model as .gsm object-Editable GDL script

Step 4: Editing the GDL Object — Time Duration: 6min 07sec

- Open Object-2D symbol editing
- Adding hotspots to the object



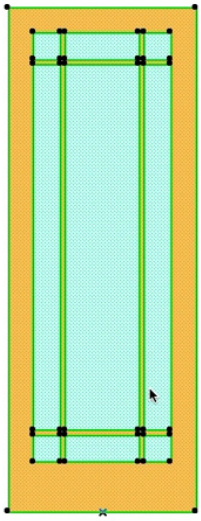
Step 5: Adding Material Parameters — Time Duration: 6min 35sec

- Open Object-2D symbol editing
- 3D GDL scripting

Chapter 04- Auto saving rectangular doors. Creating Custom Door Panels, has 5 movies (Steps)

Step 1: Overview — Time Duration: 37sec

- Info regarding Prairie door



Step 2: Modelling — Time Duration: 4min 12sec

- Creating the door using Slab tool
- Cutting hole in the slab

Step 3: Creating the GDL Object — Time Duration: 2min 58sec

- Save 3D model as .gsm object

Step 4: Editing the GDL Object — Time Duration: 2min 26sec

- GDL -2D symbol editing window
- Saving the changes

Step 5: Creating Custom Door Panels — Time Duration: 5min

- Loading libraries
- Check the custom door panel in 3D window
- Modifying the door opening angle

Chapter 05- Auto saving Non-rectangular Windows, has 6 exercise movies (Steps)

Step 1: Overview — Time Duration: 1 min 09sec

- Info regarding Gothic Rose Window

Step 2: Modelling — Time Duration: 5min 15sec

- Modelling Window Mullions
- Cutting holes in the Slab

Step 3: Creating the GDL Object — Time Duration: 3 min 15sec

- Saving 3D model as .gsm object
- Place the Rose window on the plan

Step 4: Enhancing the 2D Symbol — Time Duration: 1 min 47sec

- Creating new 2D symbol for the Ross window object

Step 5: Adding Material Parameters — Time Duration: 2 min 45sec

- GDL window–hiding some parameters
- Editing 3D script

Step 6: Make a Preview Picture with Lightworks — Time Duration: 4 min 29sec

- Preview picture option in GDL window
- PhotoRendering settings

Chapter 06- Basics of GDL scripting, has 8 exercise movies (Steps)

Step 1: Overview — Time Duration: 4 min 02sec

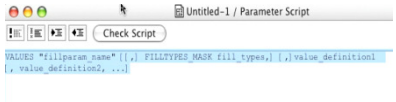
- Info regarding Pedestal table
- Subtype in the GDL master window

Step 2: Creating Parameters — Time Duration: 2 min 38sec

- Setting ZZYZX default variable

Step 3: Creating the 3D Geometry — Time Duration: 8 min 06sec

- 3D view in GDL master window
- G(Global),L(Local) string
- AC12 GDL reference guide
- 3D script window



Step 4: Assigning Materials — Time Duration: 2 min 23sec

- Syntax code from GDL reference guide

Step 5: Creating Value Lists For Parameters — Time Duration: 1 min 56sec

- Values script from GDL reference guide

Step 6: Checking the 3D model — Time Duration: 33sec

- Modifying the ZZYZX parameter

Step 7: Creating the 2D of the object — Time Duration: 1 min 35sec

- Circle2 command script from the GDL reference guide

Step 8: Placing and working with the Object — Time Duration: 4 min 36sec

- Saving the Object in appropriate location
- Editing the Object in 3D window

Chapter 07- Basics of GDL scripting- Part II, has 4 exercise movies (Steps)

Step 1: Overview — Time Duration: 1 min 36sec

- Info regarding Extension Table

Step 2: Creating the Parameters — Time Duration: 6 min 26sec

- Saving a new .gsm object
- Organising 2D/3D parameters

Step 3: Creating the Master Script — Time Duration: 3 min 39sec

- Defining variables for 2D/3D script
- IF<Cond> Then< Cond> command

Step 4: Creating the 3D Script — Time Duration: 15 min 55sec

- PRISM_ command syntax from GDL reference guide
- 3D scripting
- END command

Chapter 08- Basics of GDL scripting- Part lll, has 3 exercise movies (Steps)

Step 1: Overview — Time Duration: 8 min 38sec

- Comment/Uncomment lines
- Indent button

Step 2: Creating the Legs — Time Duration: 8 min 52sec

- Setting the attributes in the master script
- ADD x,y,z command

Step 3: Creating the 2D script — Time Duration: 8 min 14sec

- Fill and Pen command
- IF<Cond> Then<cond> Else<cond>
- Show insert parameter
- HOTSPOT2 command

Chapter 09- Advanced GDL scripting- Part lll, has 6 exercise movies (Steps)

Step 1: Overview — Time Duration: 1 min 43sec

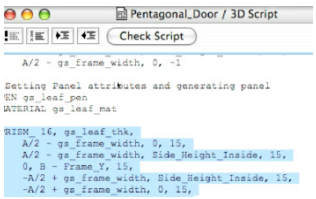
- Creating a door's pentagon upper edges
- Indent button

Step 2: Creating the Parameters — Time Duration: 4min 23sec

- Subtype Hierarchy
- Saving the Door as a .gsm object

Step 3: Creating the Parameters Script — Time Duration: 6min 06sec

- VALUES command
- RANGE command
- HIDE Parameters command



Step 4: Creating the 3D Script — Time Duration: 7min

- Setting up the PEN, Material attributes
- 3D view window to see the result
- WALLHOLE command

Step 5: Creating the Macro Call — Time Duration: 6min 23sec

- CALL command
- Macro object name - macro_name_string

Step 6: Creating the 2D Script — Time Duration: 4 min 12sec

- Using Global variable
- RECT2,HOTSPOT2 Commands

Chapter 10- Advanced GDL scripting- Cont., Part l Opening Doors, has 4 exercise movies (Steps)

Step 1: Overview — Time Duration: 2 min 48sec

- Creating a short animation

Step 2: Creating the parameters — Time Duration: 2 min 07sec

- Defining opening angle parameter
- IF NOT<cond> THEN<cond> Else <cond>

Step 3: Creating the 3D script — Time Duration: 3 min 19sec

- Explanation of how the commands work to show the door opening angles

Step 4: Creating the animation — Time Duration: 3 min 35sec

- Setting up Frame values
- Create Fly through -Quick time movie

Chapter 10- Advanced GDL scripting- Cont., Part ll Construction Simulation, has 5 movies (Steps)

Step 5: Bringing in data from Google Earth — Time Duration: 6min 35sec

- Saving image from Google Earth as .jpeg
- Bringing 3D building data from Google Earth
- Create Fly through -Quick time movie

Step 6: Creating the Object from the Mass — Time Duration: 2min 18sec

- Save 3D model as .gsm object

Step 7: Creating the parameters — Time Duration: 1min 17sec

- Setting up the parameter list

Step 8: Creating the 3D script — Time Duration: 6min 19sec

- CUTPLANE command
- IF NOT<cond> THEN<cond> ENDIF

Step 9: Creating the 3D animation — Time Duration: 1min 26sec

- Setting up Frame values
- Creating Fly Though

Congratulations on successful completion of Building Object Creation ITG!!