

2.2 ENTORNO BIM

Objetivo:

Comprender la interfaz del usuario del programa ARCHICAD.



1. CREAR NUEVO PROYECTO

Sign in



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Sort by: Last used



Quit ARCHICAD

2. PARA SALIR DEL PROGRAMA



Open Selected

The image shows the ARCHICAD software interface. At the top, the menu bar includes 'ARCHICAD', 'File', 'Edit', 'View', 'Design', 'Document', 'Options', 'Teamwork', 'Window', and 'Help'. Below the menu bar is a toolbar with various icons for drawing and editing. The main workspace is divided into several panels: 'Main' (Default Settings), 'Layer' (Structural - Bearing), 'Geometry Method' (Core Outside), 'Reference Line Location', 'Structure' (Generic Wall/S...), 'Floor Plan and Section' (Floor Plan and Section...), 'Linked Stories' (1. Story (Home + 1), 0. Ground Floor (C...)), and 'Bottom and Top' (3000, 0). The central workspace shows a drawing of a wall with a horizontal line and two vertical lines. The text '1. BARRA DE MENUS' is overlaid on the workspace. The bottom status bar shows 'Enter First Node of Wall.' and 'GRAPHISOFT ID'.

1. BARRA DE MENUS

The screenshot displays the ARCHICAD software interface. At the top, the menu bar includes 'ARCHICAD', 'File', 'Edit', 'View', 'Design', 'Document', 'Options', 'Teamwork', 'Window', and 'Help'. The toolbar below contains various drawing and editing tools. The settings panel is divided into several sections: 'Main' (Default Settings), 'Layer' (Structural - Bearing), 'Geometry Method' (3D / All), 'Reference Line Location' (Core Outside), 'Structure' (Generic Wall/S...), 'Floor Plan and Section' (Floor Plan and Section...), 'Linked Stories' (1. Story (Home + 1), 0. Ground Floor (C...)), and 'Bottom and Top' (3000, 0). The main drawing area shows a 2D wall with a horizontal line and two vertical lines, with a small 'x' mark indicating a node. The tree view on the right shows a hierarchy of elements: 'Untitled' (Sheet Index, A.01 Floor Plans, A.02 Elevations, Masters). The status bar at the bottom shows 'Enter First Node of Wall.' and 'GRAPHISOFT ID'.

2. VENTANA DE ARCHICAD

The screenshot displays the ARCHICAD software interface. The main window shows a 2D elevation view of a wall. A blue title bar is being drawn across the top of the wall. The interface includes a top menu bar with options like File, Edit, View, Design, Document, Options, Teamwork, Window, and Help. Below the menu is a toolbar with various drawing tools. The left sidebar contains a Design tool palette. The right sidebar shows a Project Tree with a hierarchy of views: Untitled, Sheet Index, A.01 Floor Plans, A.02 Elevations, and Masters. The bottom status bar shows the current view is '02 Drafting' and the scale is '1:100'. The text '3. BARRA DE TITULO' is overlaid on the drawing area in large blue font.

The image shows the ARCHICAD software interface. At the top, there is a menu bar with options: ARCHICAD, File, Edit, View, Design, Document, Options, Teamwork, Window, Help. Below the menu bar is a toolbar with various icons for drawing and editing. The main workspace is currently in a 2D view, showing a simple wall structure with a horizontal line at the top and bottom, and two vertical lines on the sides. The interface includes several tool palettes: 'Main' (Default Settings), 'Layer' (Structural - Bearing), 'Geometry Method' (Core Outside), 'Reference Line Location', 'Structure' (Generic Wall/S...), 'Floor Plan and Section' (Floor Plan and Section...), 'Linked Stories' (1. Story (Home + 1), 0. Ground Floor (C...)), and 'Bottom and Top' (3000, 0). On the right side, there is a 'Tree by Subset' panel showing a project hierarchy: Untitled, Sheet Index, A.01 Floor Plans (A.01.1 Ground Floor, A.01.2 1. Story, A.01.3 2. Story), A.02 Elevations (A.02.1 E-01 North Ele, A.02.2 E-02 East Elev, A.02.3 E-03 South El, A.02.4 E-04 West Ele), and Masters (A4 Portrait, A3 Landscape, A2 Landscape, A1 Landscape). At the bottom, there is a 'Properties' panel with the text 'No Selection.' and a status bar with the text 'Enter First Node of Wall.'

4. PALETA DE HERRAMIENTAS: ESTÁNDAR

The screenshot displays the ARCHICAD software interface. At the top, the menu bar includes 'ARCHICAD', 'File', 'Edit', 'View', 'Design', 'Document', 'Options', 'Teamwork', 'Window', and 'Help'. The status bar shows system information like 'MEM 53%', '65%' battery, and the date 'Dom 10:19 p.m.'. The main toolbar contains various drawing and editing tools. Below the toolbar, the 'Properties' palette is active, showing settings for a wall: 'Main: Default Settings', 'Layer: Structural - Bearing', 'Geometry Method: Core Outside', 'Reference Line Location: Core Outside', 'Structure: Generic Wall/S...', and 'Floor Plan and Section: Floor Plan and Section...'. The 'Bottom and Top' section shows a height of 3000 and a width of 0. The 'Tree by Subset' panel on the right shows a project structure with folders for 'A.01 Floor Plans' and 'A.02 Elevations'. The 'Properties' panel at the bottom right shows 'No Selection.' The central workspace shows a wall drawing with blue lines and a small 'x' mark. The bottom status bar indicates 'Enter First Node of Wall.' and shows various view and zoom settings.

5. CUADRO / PALETA DE INFORMACIÓN

6. PALETA DE HERRAMIENTAS

ARCHICAD File Edit View Design Document Options Teamwork Window Help

Untitled

Main: Default Settings Layer: Structural - Bearing Geometry Method: Core Outside Reference Line Location: Core Outside Structure: Generic Wall/S... Floor Plan and Section: Floor Plan and Section... Linked Stories: 1. Story (Home + 1) 0. Ground Floor (C... Bottom and Top: 3000 0

[0. Ground Floor] [3D / All] [South Elevation]

Design

Viewpoint

Docume 22% 0° 1:100 02 Drafting Entire Model 03 Architect... 03 Building... No Overrides 00 Show All...

Enter First Node of Wall.

GRAPHISOFT ID

ARCHICAD File Edit View Design Document Options Teamwork Window Help

Untitled

Main: Layer: Geometry Method: Reference Line Location: Structure: Floor Plan and Section: Linked Stories: Bottom and Top:

Default Settings Structural - Bearing Core Outside Generic Wall/S... Floor Plan and Section... 1. Story (Home + 1) 0. Ground Floor (C... 3000 0

[0. Ground Floor] [3D / All] [South Elevation]

7. ÁREA DE DIBUJO / MODELADO / VISTAS

Design

Viewpoi

Docume 22% 0° 1:100 02 Drafting Entire Model 03 Architect... 03 Building... No Overrides 00 Show All...

Enter First Node of Wall.

GRAPHISOFT ID

INTERFAZ DE TRABAJO

The screenshot displays the ARCHICAD software interface. At the top, the menu bar includes 'ARCHICAD', 'File', 'Edit', 'View', 'Design', 'Document', 'Options', 'Teamwork', 'Window', and 'Help'. The system tray shows the date and time as 'Dom 10:19 p. m.' and a battery level of 65%. The main toolbar contains various drawing and editing tools. Below the toolbar, the ribbon is divided into several sections: 'Main', 'Layer' (set to 'Structural - Bearing'), 'Geometry Method', 'Reference Line Location' (set to 'Core Outside'), 'Structure' (set to 'Generic Wall/S...'), 'Floor Plan and Section' (set to 'Floor Plan and Section...'), 'Linked Stories' (showing '1. Story (Home + 1)' and '0. Ground Floor (C...)'), and 'Bottom and Top' (set to '3000' and '0'). The ribbon is highlighted with a red box. The central workspace shows a 3D view of a wall structure with blue lines and a red 'x' mark. The left sidebar contains a 'Design' toolbar with various wall and window symbols. The right sidebar features a 'Tree by Subset' panel with a hierarchical view of the project structure, including 'Untitled', 'Sheet Index', 'A.01 Floor Plans', 'A.02 Elevations', and 'Masters'. The bottom status bar shows the current view as '02 Drafting' and 'Entire Model', with a scale of 1:100. The text 'Enter First Node of Wall.' is visible at the bottom left.

7.1. Barra de pestañas

The image shows the ARCHICAD software interface. The main window displays a 3D view of a wall structure. The interface includes a top menu bar (File, Edit, View, Design, Document, Options, Teamwork, Window, Help), a toolbar with various drawing tools, and a panel on the right containing a project tree and a properties panel. The project tree is expanded to show the following structure:

- Untitled
 - Sheet Index
 - A.01 Floor Plans
 - A.01.1 Ground Floor
 - A.01.2 1. Story
 - A.01.3 2. Story
 - A.02 Elevations
 - A.02.1 E-01 North Ele
 - A.02.2 E-02 East Elev
 - A.02.3 E-03 South El
 - A.02.4 E-04 West Ele
 - Masters
 - A4 Portrait
 - A3 Landscape
 - A2 Landscape
 - A1 Landscape

The properties panel at the bottom of the right sidebar shows "No Selection." The status bar at the bottom of the window displays "Enter First Node of Wall." and "GRAPHISOFT ID".

8. NAVEGADOR DESPLEGABLE

ARCHICAD File Edit View Design Document Options Teamwork Window Help

MEM 53% 65% Dom 10:19 p. m.

Untitled

Main: Default Settings Layer: Structural - Bearing Geometry Method: Core Outside Reference Line Location: Core Outside Structure: Generic Wall/S... Floor Plan and Section: Floor Plan and Section... Linked Stories: 1. Story (Home + 1) 0. Ground Floor (C... Bottom and Top: 3000 0

[0. Ground Floor] [3D / All] [South Elevation]

10. BARRA DE ESTADO

Design

Tree by Subset

- Untitled
 - Sheet Index
 - A.01 Floor Plans
 - A.01.1 Ground Floor
 - A.01.2 1. Story
 - A.01.3 2. Story
 - A.02 Elevations
 - A.02.1 E-01 North Ele
 - A.02.2 E-02 East Elev
 - A.02.3 E-03 South El
 - A.02.4 E-04 West Ele
 - Masters
 - A4 Portrait
 - A3 Landscape
 - A2 Landscape
 - A1 Landscape

Properties

No Selection.

Docume 22% 0° 1:100 02 Drafting Entire Model 03 Architect... 03 Building... No Overrides 00 Show All...

Enter First Node of Wall.

GRAPHISOFT ID

The screenshot shows the ARCHICAD software interface. The 'Options' menu is open, and 'Working Units...' is selected. The interface includes a top menu bar (ARCHICAD, File, Edit, View, Design, Document, Options, Teamwork, Window, Help), a toolbar, a main workspace with a grid and a wall element, and a right-hand panel with a tree view and properties section. The status bar at the bottom shows the current view and zoom level.

Options menu items:

- Element Attributes
- Property Manager...
- Classification Manager...
- Complex Profiles
- Auto Intersection
- Add-On Manager...
- Project Preferences
- Work Environment

Project Preferences sub-menu items:

- Working Units...
- Dimensions...
- Calculation Units & Rules...
- Zones...
- Reference Levels...
- Legacy...
- Stair Rules and Standards...
- Structural Analytical Model Units...
- Structural Analytical Model Representation...
- MEP Preferences...
- Project Location...
- Set Project North
- Open BIMcloud Manager...

ELABORACIÓN DE PLANOS CON HERRAMIENTAS BIM



TRAZADO DE PLANOS CON ARCHICAD

APRENDIZAJE GUIADO: PABELLÓN DE DORMITORIOS

El presente ejercicio busca desarrollar paso a paso una edificación pequeña, que permita el empleo de las principales herramientas del ARCHICAD, desde su cimentación hasta la cubierta, estableciendo parámetros de calibración de materiales en su representación bidimensional y tridimensional

DIBUJO DIGITAL

CONSIDERACIONES GENERALES PARA LA REPRESENTACIÓN DIGITAL

Para el desarrollo de este ejercicio es fundamental tener una claridad de la secuencia del proceso constructivo y de los elementos estructurales que conforma una estructura de hormigón armado, bajo la cual se desarrolla el presente ejercicio.

El autor M. Saleh Uddin (2000) cita una serie de pautas que se deben seguir para la adecuada estructuración de una presentación arquitectónica; estas son:

- Composición basada en relaciones entre los dibujos.
- Atención a los dibujos primarios y secundarios.
- Determinación de la jerarquía para fortalecer el énfasis y la claridad.
- Confirmación de la secuencia del contenido del diseño.
- Creación del grado de abstracción.
- Selección de la técnica gráfica.
- Revisión de la normativa municipal para la aprobación de los planos a efectuarse

A su vez es fundamental establecer los siguientes criterios para la expresión gráfica del trazado de planos:

- Dibujos claros y limpios
- Manejo de color (escala de grises)
- Mobiliario simple, comprensible y de menor valor de línea con respecto a la información principal
- Incorporación de texturas en grises con la finalidad de que no resalte con la información principal.

FUNDAMENTOS DE LA REPRESENTACIÓN ARQUITECTÓNICA SE PUEDE CONSULTAR EL SIGUIENTE RECURSO:



DIMENSIONES DE LOS ELEMENTOS CONSTRUCTIVOS

- Cimentación con zapatas aisladas de hormigón armado de 1.00x1.00x0.30m.
- Columnetas de hormigón armado 0.4x0.4m.
- Cadenas de hormigón armado de 0.4x0.4m
- Columnas de hormigón Armado de 0.3x0.3m
- Vigas de confinamiento de hormigón armado de 0.3x0.5m.
- Losa de contrapiso de hormigón armado con recubrimiento cerámico, espesor total 8cm (6cm hormigón armado y 2cm recubrimiento)
- Losa de cubierta de hormigón armado con recubrimiento cerámico, espesor total 30cm (28cm hormigón armado y 2cm recubrimiento) Viga pre-tensada de hormigón armado Doble "T" de 2,40x0.45m
- Mampostería de ladrillo visto e=30cm
- Mampostería de ladrillo visto con recubrimiento de madera e= 20cm (14cm ladrillo y 3cm de recubrimiento por lado)
- Puertas principales 1.00x2.40m
- Puertas para baños 0.70x2.40m
- Ventana de baño 0.50x1.95m
- Muro Cortina con carpinterías trazadas de 1,00 para puerta y otra a 2,10 de altura como tarjetero.

ELABORACIÓN DE PLANOS CON HERRAMIENTAS BIM

