

2.2 ENTORNO BIM

Objetivo:

Comprender la interfaz del usuario del programa ARCHICAD.



1. CREAR NUEVO PROYECTO

Sign in



New...

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Teamwork...

Recent Projects:



Filter by Name or Keywords



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 drawing and editing tools. 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 right side of the interface features a 'Tree by Subset' panel with a hierarchical structure of project elements, including 'Untitled', 'Sheet Index', 'A.01 Floor Plans', 'A.02 Elevations', and 'Masters'. The bottom status bar shows 'Enter First Node of Wall.' and 'GRAPHISOFT ID'.

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 hierarchical 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 Ele', 'A.02.3 E-03 South Ele', 'A.02.4 E-04 West Ele' > 'Masters' > 'A4 Portrait', 'A3 Landscape', 'A2 Landscape', 'A1 Landscape'. 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 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 at the top right shows system information like 'MEM 53%', '65%', and the date 'Dom 10:19 p.m.'. The main toolbar contains various drawing and editing tools. Below the toolbar, there are several configuration 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 3D view of a wall with blue lines and a small 'x' mark. On the left, a vertical 'Design' toolbar is visible. On the right, a 'Tree by Subset' panel shows 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 right, a 'Properties' panel shows 'No Selection.'. The bottom status bar includes 'Docume', '22%', '0°', '1:100', '02 Drafting', 'Entire Model', '03 Architect...', '03 Building...', 'No Overrides', '00 Show All...', and 'Enter First Node of Wall.'. The 'GRAPHISOFT ID' logo is also present.

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 thickness of 0. The 'Tree by Subset' panel on the right shows 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'. The 'Properties' panel at the bottom right shows 'No Selection.'. The main workspace shows a drawing of a wall with a horizontal reference line and vertical dimension lines. The status bar at the bottom indicates 'Enter First Node of Wall.' and shows a series of tabs: 'Docume', '22%', '0°', '1:100', '02 Drafting', 'Entire Model', '03 Architect...', '03 Building...', 'No Overrides', and '00 Show All...'. The bottom right corner features the 'GRAPHISOFT ID' logo and the text 'INTERFAZ DE TRABAJO'.

5. CUADRO / PALETA DE INFORMACIÓN

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%' and 'Dom 10:19 p. m.'. The main workspace is titled 'Untitled' and shows a 3D view of a wall structure with blue lines and a small 'x' mark. The left side features a vertical 'Design' tool palette with various icons for drawing and editing. The top of the workspace has several configuration 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 right side contains 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' -> 'Masters' -> 'A4 Portrait', 'A3 Landscape', 'A2 Landscape', 'A1 Landscape'. At the bottom, the 'Properties' panel shows 'No Selection.' and the status bar indicates 'Enter First Node of Wall.'

6. PALETA DE HERRAMIENTAS

ARCHICAD File Edit View Design Document Options Teamwork Window Help

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

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

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.

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. Below the ribbon, the 'Design' toolbar is visible. The main workspace shows a 3D view of a wall with blue lines and a red 'x' mark. The bottom status bar displays 'Enter First Node of Wall.' and a series of tabs: 'Docume', '22%', '0°', '1:100', '02 Drafting', 'Entire Model', '03 Architect...', '03 Building...', 'No Overrides', and '00 Show All...'. The right sidebar contains 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 'Properties' panel at the bottom right shows 'No Selection.'

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 menu bar at the top with options like File, Edit, View, Design, Document, Options, Teamwork, Window, and Help. Below the menu bar is a toolbar with various drawing and editing tools. The main workspace is divided into several panels: Main, Layer, Geometry Method, Reference Line Location, Structure, Floor Plan and Section, Linked Stories, and Bottom and Top. The main workspace shows a 3D view of a wall structure with a red 'x' mark. The right side of the interface features a project tree (Navigator) with a red border, showing a hierarchical structure of the project. The 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

Below the project tree is a Properties panel with the text "No Selection." The bottom status bar shows the current view (02 Drafting), scale (1:100), and other settings. The text "8. NAVEGADOR DESPLEGABLE" is overlaid on the main workspace in large blue font.

The screenshot displays the ARCHICAD software interface. The main design area is titled "9. BARRA DE OPCIONES RÁPIDAS". 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 and editing tools. A settings panel is located below the toolbar, with sections for 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 (1. Story (Home + 1), 0. Ground Floor (C...)), and Bottom and Top (3000, 0). The tree view on the right shows a project structure with folders for Sheet Index, A.01 Floor Plans, A.02 Elevations, and Masters. The status bar at the bottom shows the current view as "02 Drafting" and "Entire Model".

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. The status bar at the bottom shows 'Enter First Node of Wall.' and 'GRAPHISOFT ID'.

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

