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File Menu

The File menu includes commands that enable you to open and save files, establish a new workspace, and to print.

For more information, select the File menu command name.

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Exit CommandThis Menu Option exits the program. It will ask for a save first

File New Command

This Menu Command clears the current diagram

File Open Command 🖼

This Menu option will open a .erd file

This menu option will print the full diagram up to $3x3\ 8.5\ x\ 11$ pages.

File Save To Clipboard

This menu option will save the text outlined by the clipping tool to the clipboard.

This option saves an .erd file. The file contains all information about the current diagram.

File Save As Command

This command allows you to save your file under a different .erd filename

File Print Text Command

This allows you to print any text file. This includes *.h, *.cpp, *.hpp, and *.dic files.

Print Setup Command

This feature lets you set up your default printer.

Draw Class Command

This Menu Command brings up the $\underline{\text{class dialog}}$ box. It allows you to draw a class.

Class Dialog

The class dialog box has several features: the ability to provide a <u>class name</u>, list <u>attributes</u>, list <u>operations</u>, define description for attributes and operations, and a class description(through the <u>Info</u> button). Classes are drawn using the <u>Class Placement Tool</u>

Class Name

The class name can be any one word alphanumeric to describe the class

Class Attributes

The user should enter a <type> and a <name> for the attribute.

Example: float Width

The type will default to **int** if the user only enters the <name> Hitting a semi-colon or pushing the **Add** button ads the attribute to the list.

Double-clicking on the attribute, allows the user to enter a description of the attribute.

Class Operation

The user should enter a <return type> and a <name> for the operation. Example: void ExpandWidth(float aWidth)

The return type will default to **void** if the user only enters the <name>
Hitting a semi-colon or pushing the **Add** button ads the operation to the list.
Double-clicking on the operation, allows the user to enter a description.

Class Info

The user can click on the Info button in the class dialog box and this will allow the user to enter important descriptive information about the class. Including a template for visibility, cardinality, persistence, and concurrency.

Class Placement Tool +

This tool shows up when you click okay in the $\underline{\text{class dialog}}$. Move the mouse to where you want to place the class, and click down on the left mouse button.

Draw Text Command

This feature allows the user to draw text on the diagram an stretch the text to whatever rectangle the user wishes to fit the text in.

Draw Shape Commands - Draw Oval, Draw Rect

The user uses this feature to draw an oval or rectangle of any size by clicking down on the location and dragging to the appropriate size.

Draw Line Commands - Draw Line, Draw Arrow, Draw CW Arc, Draw CCW Arc

Draw Line, Arrow - The user can draw a line the same way the user has drawn relations.

Draw CW Arc, CCW Arc - This feature allows the user to draw clockwise and counter clockwise arcs. The user may want to turn off the snap when using this feature.

Stretch Shap Command 🗜

This feature brings up a tool that the user can use to stretch polygons and Text. Simply click on the polygon you wish to stretch. Release the mouse, and the dotted version of the polygon will appear. Now just drag on the shape to stretch it.

Snap On Command

This function defaults to checked when the program is launched. The Snap On 'checked' indicates that the program will snap all lines and relations horizontally or vertically to the attached class or polygon.

Show Tools Command

Default is checked. This feature allows the user to hide the tool palettes.

Delete On - X

This turns the delete tool on. The delete tool can be turned back off by toggling this menu option. It can also be turned on and off from the X in the Palette

Clip On -

This turns the clipping tool on. The user simply clicks the left mouse button down in the corner in which the user wishes to clip and drags to the far corner. The dotted rectangle borders the area of clipping. The user then chooses $\underline{\mathsf{Save}}$ To $\underline{\mathsf{Clipboard}}$

Draw Relation Command

This Menu Command brings up the <u>relation dialog</u> box. It allows you to draw a relation.

Relation Dialog

The Relation dialog box has several features: the ability to provide a <u>relation name</u>, specify <u>relation type</u>, and define a description for a relation (through the <u>Info</u> button). Relations are drawn using the <u>Relation Drawing Tool</u>

Relation Name

The relation name can be any one word alphanumeric to describe the relation.

Example: a relation name pointing from class $\bf Person$ to class $\bf Dog$ may be called $\bf MyDog$;

Type of Relation

There are 3 types of relations described by this tool, <u>Inheritance</u>, <u>Aggregation</u>, and <u>Weak Association</u>

Inheritance - This points from general to specific. Example: class **Square** inherits the properties of class **Rectangle**. Where **Rectangle** is the general case pointing to the specific class **Square**.

Aggregation -This relation points from the whole to the part. For example class **Hand** is part of class **Person**. So **Person** has relation **MyHand** pointing to **Hand**.

Weak Association - This relation allows access from one class to another. Example: class **Employer** hires **MyEmployee**. Therefore class **Employer** has a weak association to class **Employee** via **MyEmployee** and can call the MyEmployee->hire() function to carry out hiring.

Relation Info

The user can click on the Info button in the relation dialog box and this will allow the user to enter important descriptive information about the relation.

Relation Drawing Tool -

This tool shows up when you click okay in the <u>relation dialog</u>. Move the mouse to where you want to connect the source of the relation, and click down on the left mouse button. Drag the mouse button to where you want to connect the destination class and release. The program will automatically fit the lines for you.

Methodology

The user can choose between methodologies of

Rumbaugh
Shlaer -Mellor
Booch
Coad-Yourdon
anytime while drawing the diagram. Simply click on the desired methodology in the menu.

Zoom In

This feature expands the diagram until it is full size. The maximum sized diagram shows all class details of attributes and operations.

Zoom Out

This feature shrinks the diagram. Zooming out can help you see more of the diagram, especially if your er diagram is very large.

Generate Code 🖽

This option will generate C++ code from your current erd file. Use the Options Dialog.

Make Data Dictionary

This feature makes a data dictionary from the diagram. It is most useful if the user has descriptions for the various classes, relations, attributes and operations.

Edit File

This feature brings up a simple editor in which the user can view and change the data dictionary or the various C++ generated files.

Options

This feature brings up the <u>Options</u>. This dialog allows the user to check various options for code generation.

Options Dialog

The Options dialog has the following choices:

Generate HPP files
Generate CPP files
Generate Copy Constructors
Generate #ifdefs
Generate ClassDefs (Borland feature)
Generate T's in front of classes
Make One-to-Many C_Array or Container Class

Reverse Code Command

This feature allows the user to reverse engineer already generated code. the code should all reside in the same directory for this feature to work. Upon selecting this option, the user will be prompted to choose the directory of the existing code. The program will then proceed to bring the code into a diagram on the screen which the user can choose to save. Only non-inline code will be brought into the diagram.

Rumbaugh

This is one of the methodologies the user can choose as a basis for the shapes of relations. Clicking **Rumbaugh** in the menu changes all relations to the characteristic shapes for **Rumbaugh**

Shlaer-Mellor

This is one of the methodologies the user can choose as a basis for the shapes of relations. Clicking **Shlaer-Mellor** in the menu changes all relations to the characterstic shapes for **Shlaer-Mellor**.

Booch

This is one of the methodologies the user can choose as a basis for the shapes of relations. Clicking **Booch** in the menu changes all relations to the characterstic shapes for **Booch**.

Coad Yourdon

This is one of the methodologies the user can choose as a basis for the shapes of relations. Clicking **Coad-Yourdon** in the menu changes all relations to the characterstic shapes for **Coad-Yourdon**.