CALIBRA - The Clock Editor Module

Introduction

The Calibra package consists of two modules, called Clock and Clock Editor. The Clock Editor is designed to enhance the usability and enjoyment of the Clock module by allowing you to modify existing clocks and even create your own.

The Clock Editor is very easy to use, with hints appearing at the bottom of the window. Just about anything you do in the program will result in an explanatory message in the hint line, making it easy to get started with designing a clock on-screen.

There are two kinds of objects in the Clock Editor, static objects and hand objects. Static objects are so called because they do not move. A static object is copied from a list of objects, moved somewhere on the clock face and modified. It is then a feature of the clock face.

Hand objects are also copied from a list of objects, moved somewhere on the clock face and modified. However, when the clock is saved from the Clock Editor module and then run by the Clock module, the hands become animated and tell the time according to your computer's system clock.

Creating a Clock

Here is an overview of the process of creating a clock, to give you some idea of what happens.

As a first step it is a good idea to create the basic shape of the clock. This could consist of placing an ellipse or rounded rectangle on the screen via the menu item Static Objects | Add/delete. The shape is initially placed in the centre of the window, underneath the hands. Then you would rescale it to an appropriate size and alter the line thickness, line colour and fill colour to your liking. You could also change the window's background colour at this point, using the Options menu item.

Next, you could replace the default hands with other hand shapes by using the menu item Hand Objects | Replace. One by one, you would then rescale and recolour the hands to your liking.

The hands should have some marks to point to, so you need to place another static object on the screen. Reduce it in size a little, and then arrange it in a circle using Static Objects | Arrange in Circle. By experimenting with the Static Objects menu item you will discover many ways to arrange markers. Look at the sample clocks to see how one or more object types can be used with different settings to create a clock dial.

Finally, you may like to make the clock face more interesting by adding and modifying other static objects. Shadows may be created by placing an extra copy of an object and making the fill colour black.

The clock may be saved on your hard disk by selecting File | Save and specifying a filename for your clock. For convenience, it is a good idea to name all your clocks with the extension .clk (e.g. myclock.clk) like the sample clocks.

Modifying a Clock

If you have gone through the process of designing a clock, modifying an existing one (such as the sample clocks) is easy. Most likely you will just want to change some of the colours, or perhaps try a different set of hands.

Simply step through the objects one by one using N, P or <Alt> N to select the desired part of the clock, and then use the menus to make any changes. The selected static object may be deleted altogether by pressing <Delete>. As in creating a clock, you may also insert additional objects into the clock face.

The Menu Items

The menu items are explained in detail below.

File | Load Clock

This menu item brings up the standard file dialog box, enabling you to select any clock file to read into the Clock Editor for modifications.

File | Save Clock

Saves the currently displayed clock to the same file from which it was loaded.

File | Save Clock as

This menu option brings up the standard file dialog, allowing you to save an existing clock under a different name. If you attempt to save over an existing file name, a warning dialog will appear, giving you the chance to change your mind.

It is a good idea to save clocks with the .clk file name extension e.g. myclock.clk.
If the clock is new (untitled), this dialog will appear even if you selected File | Save.

File | New Clock

This menu item prepares for the creation of a new clock. The main window is cleared and the default hands are displayed.

File | Exit

Closes down the Clock Editor module. If a clock is displayed and has not been saved, a dialog box will appear, giving you the chance to save it.

Static Objects | Undo

If you have done something to a static object, such as deleted it or changed its colour, you may 'undo' the change by selecting this menu item. Only the last change made may be undone.

Static Objects | Add/Delete

This menu item brings up a dialog box containing two list boxes. The list on the left is all the available static objects that may be copied into a clock. The list on the right is all the static objects that make up the clock being displayed: for a new clock, this list will be empty.

To add another object to the clock, you first click somewhere in the list on the left. This highlights the object you wish to copy. If you now press the >> *add to current clock* >> button, the selected object gets copied across to the *top* of the list on the right. Note that the order of objects in the list on the right is the same order in which they get displayed. Because of this, an object at the top of the list may be hidden by an object further down! However, it is easy to insert objects just where you need them - simply click on an object in the list on the right and any additions to the list will be added *after* this object.

To delete an object from the current clock, just click on an object in the list on the right and then press the *delete from current clock* button.

Static Objects | Delete

Selecting this menu item will delete the selected static object. You can also do the same thing by just pressing the <Delete> button on the keyboard.

Static Objects | Move

This menu item brings up a dialog box which allows you to specify, in pixels (screen dots), the amount to shift the selected object in the x and y directions. This is useful for fine alterations to an object's position. For example, to shift an object 2 pixels to the right and 3 pixels up, you would specify 2 for the x direction and 3 for the y direction. Negative numbers shift the object in the opposite direction.

The easiest way to move an object is by just clicking inside the dotted box and dragging it to its new location.

Static Objects | Rescale

This menu item brings up a dialog box which allows you to specify, in percentage terms, the amount to scale the selected object in the x and y directions. This is useful for exact alterations to an object's size.

For example, to make an object exactly twice as wide as it was before, you would specify 200 for the x direction. To make it 1 quarter as high, you would specify 25 for the y direction, and so on.

The easiest way to rescale an object is by just holding the <Shift> button on the keyboard down, then clicking inside the dotted box and dragging it to its new size. When done this way, the proportions of the object do not change.

Static Objects | Alter

This menu item brings up a dialog box which allows you to change the line size, line colour and fill colour of the static object. Also, you can specify if the object is to be filled, by clicking on a check box. If it is not, the area is encloses is transparent, i.e. other objects will show through.

Line size is the thickness of the line in pixels (screen dots). The red, green and blue values must all be greater than or equal to 0 and less than 256.

Line objects are an exception. These objects do not enclose an area, and so cannot be filled. Hence, the state of the *filled* check box and the fill colour values are ignored. Only the line colour values make a difference.

Static Objects | Arrange in Circle | Radius

This menu item is available if the current static object has been arranged in a circle (see next item). A dialog box comes up, allowing you to specify a radius in pixels (screen dots). This is the radius of the circle on which the static object has been arranged. A large figure gives a large circle; a small one, a small circle.

Static Objects | Arrange in Circle | How Many | None

This menu item turns off circular arrangement, leaving a single static object on the screen.

Static Objects | Arrange in Circle | How Many | 4

This menu item places copies of the static object at the 3, 6, 9 and 12 o'clock positions.

Static Objects | Arrange in Circle | How Many | 8

This menu item places copies of the static object at 5 minute intervals, but not at the 3, 6, 9 and 12 o'clock positions. Thus, this arrangement can be used in combination with the one above, to display 2 types of markers.

Static Objects | Arrange in Circle | How Many | 12

This menu item places copies of the static object at all the 5 minute intervals.

Static Objects | Arrange in Circle | How Many | 48

This menu item places copies of the static object at 1 minute intervals, but not at the 5 minute intervals. Thus, this arrangement can be used in combination with the one above, to display 2 types of markers.

Static Objects | Arrange in Circle | How Many | 60

This menu item places copies of the static object at all the 1 minute intervals.

Static Objects | Arrange in Circle | Radial

This menu item rotates all the copies of the static object so that they point away from the centre of the circle on which they are arranged. This function is not available for the Ellipse, Rectangle and Rounded Rectangle objects. This is because they are standard Windows graphics objects and cannot be rotated.

Static Objects | Next

This menu item selects the next static object in the current clock's list. Pressing N on the keyboard has the same effect.

Static Objects | Previous

This menu item selects the previous static object in the current clock's list. Pressing P on the keyboard has the same effect.

Hand Objects | Undo

If you have done something to a hand object, such as replaced it or changed its colour, you may 'undo' the change by selecting this menu item. Only the last change made may be undone.

Hand Objects | Replace

This menu item brings up a dialog box which contains two lists, similar to the Add/Delete dialog box for static objects. The list box on the left contains all the sets of hands that you may choose from. In the Clock Editor, there are *always* 3 hands present in the displayed clock. The names of these three hands appear in the list box on the right.

Although the hands you may choose from are listed in sets of three (hour, minute, second hand), *any* hand from the list box on the left may replace *any* hand in the list box on the right. To replace a hand, click on a hand name from the list box on the left, click on a hand name from the list box on the right and then press the *>> replace hand >>* button.

Hand Objects | Second Hand on Top

Selecting this menu item places or removes a tick (check) beside it.

If the tick is present, the second hand will be displayed on top of the other two hands. This is the conventional arrangement that most clocks have.

However, it is sometimes better to have the second hand underneath the other two hands, as in the sample clock starry.clk. Here, the second hand is on a separate spindle, and the other two hands pass over it.

Hand Objects | Move

This menu item brings up a dialog box which allows you to specify, in pixels (screen dots), the amount to shift the selected hand in the x and y directions. This is useful for fine alterations to a hands position.

The easiest way to move a hand is by just clicking inside the dotted box and dragging it to its new location.

Hand Objects | Rescale

This menu item brings up a dialog box which allows you to specify, in percentage terms, the amount to scale the selected hand in the x and y directions. This is useful for exact alterations to a hand's size.

For example, to make a hand exactly twice as wide as it was before, you would specify 200 for the x direction. To make it 1 quarter as high, you would specify 25 for the y direction, and so on.

The easiest way to rescale a hand is by just holding the <Shift> button on the keyboard down, then clicking inside the dotted box and dragging it to its new size. When done this way, the proportions of the hand do not change.

Hand Objects | Alter

This menu item brings up a dialog box which allows you to change the colour of the hand.

Hand Objects | Next

Selecting this menu item will select the next hand in order. Since there are only three hands, there is no need for a 'previous' command, as for the static objects.

The easiest way to step through the hands is to press <Alt>+N on the keyboard.

Options | Snapping

This menu item brings up a dialog box in which you can select a grid size for 'snapping'.

If, for example, you select 16, a grid of dots 16 pixels apart will fill the window and any object that is dragged with the mouse will 'snap' to the nearest dot. This is useful for lining up objects exactly, either horizontally or vertically.

If a value other than 8, 16 or 32 is required, you can just type it in the 'other' edit box.

Options | Background

This menu item brings up a dialog box which contains a list of colour patches. Just click on the required colour to change the background colour of the clock.

Help | Manual

This menu item starts up Write with this file loaded.

Help | About

This menu item brings up a small dialog box with the version number, a copyright notice and the name of the author. Also listed are the electronic addresses of the author i.e. CompuServe and InterNet.