Hanim's Chapel
A Cartographer Annual 46 Tutorial
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Conventions

Throughout this tutorial, I will use a colour coding to clearly identify all the keywords:

      Sheet names will always appear in **Green**,

      Layer names will always appear in **Blue**,

      Keyboard commands or keys will always appear in **Red**,

      CC3 menu commands will always appear in *Italic Orange*.

      A **Black** name followed by an arrow pointing right → and, at least at the end, an *Italic Orange* name indicates a CC3 menu drop-down list leading to a command. **Black** names also represent buttons or sheet effects.

It is particularly important to understand the difference between sheets and layers.

Sheets are like real transparent paper sheets piled one above the other. Whatever you do with commands like *Bring to Front* or *Send to Back*, entities present on a sheet **SHEET1** above **SHEET2** will always be in front of every entity on **SHEET2**.

Layers are convenient memory drawers to keep entities organized, regardless of the sheet containing them. Except for the hide/show features, layers have no graphic effect.

For example, you might have a lot of chairs and tables on the **SYMBOLS** sheet. If you just want to move a chair, you can easier select and move the chair if it's on the **CHAIRS** layer and the tables are on the **TABLES** layer with the **TABLES** layer hidden or frozen.

The sheets and layers denominations may be confusing because some graphic softwares use layers that work like CC3's sheets.

Part 1 - Setting up

I always start with a minimal map: no bitmap fill styles and a small choice of sheets and layers:

Sheets	Layers[#]
CONSTRUCTION	GRID
WALLS	MERGE
STAIRS	STANDARD
ROOFS	TEMPLATE[##]
GRID	WALLS

[#] Layers are always sorted alphabetically whereas you can specify the sheet's order, given that the lower in the list, the upper in the map.

[##] The **TEMPLATE** layer is only there to store a small dot on every sheet used by the template. Once you have entities on every sheet, you can delete the **TEMPLATE** layer without any scruples (though there's no need to, points really don't take that much memory). The reason for this is that every empty sheet disappears when you save a map.

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1   Many thanks to Terraformer Author, for creating and sharing the nice font used for the titles. You can find it here.

I provided a *blank.FCT* template file that you can [download](). Place it in the CC3\template\other sub-folder.

To speed things up, I also added some icons and macros. You can do without, but it will really make things quicker. The bitmaps file for the buttons are also [downloadable]() and must be placed in the CC3\Bitmaps\Icons sub-folder. Nothing fancy here, just coloured squares with a letter:

CONS.BMP: **C**; GRID.BMP: **G**; NGRID.BMP: **G**; STAI.BMP: **S**; WALL.BMP: **W**

Navigate to the CC3 main folder and find the FCW32.mac file. Open it with Wordpad or any other text editor. **Immediately** save it as **myFCW32.mac** file or whatever name you deem appropriate.
Scroll to the end of the file and append the following:

```
↵
MACRO MCONS
SSET CONSTRUCTION
GOLAYER STANDARD
COLOR 8
REDRAW
ENDM
↵
MACRO MWALL
SSET WALLS
GOLAYER WALLS
COLOR 0
ENDM
↵
MACRO MSTAIR
SSET STAIRS
GOLAYER WALLS
COLOR 3
ENDM
↵
MACRO MGRID
SHOWSHT GRID
ENDM
↵
MACRO NGRID
HIDESHT GRID
ENDM
↵
↵
```

The "↵" character denotes a carriage return. Those are extremely important. If you copy/paste this code, erase those characters but make sure you replace them with *real* carriage returns.

Explanation:
The **MCONS** macro sets the current sheet (SSET) to **CONSTRUCTION**, the current layer (GOLAYER) to **STANDARD** and the color (COLOR) to 8 (orange). The MACRO and ENDM keywords indicate the start and end of the macro.

The MWALL macro works the same with the **WALLS** sheet and **WALLS** layer, changing the color to 0 (black).

The **MSTAIR** macro changes the current sheet to **STAIRS**, the current layer to **WALLS** and the color to 3 (blue). Feel free to change the colors to your taste.
The **GRID** and **NGRID** macro toggle the **GRID** sheet visible/hidden.

Save the new file and exit the text editor.
Macros are often used with the keyboard command, but to further speed things up, we will associate the new macros with our new icons. To do this, find the *dungeon.mnu* file in your CC3 main folder. Make a copy of it in case you want to revert to the current state of your DD3 configuration. Next edit the original file with your text editor and insert following lines:

```
#27,#Bitmaps\Icons\CONS.bmp:[Construction sheet/layer]{}|MCONS;
#28,#Bitmaps\Icons\WALL.bmp:[WALLS sheet/layer]{}|MWALL;
#29,#Bitmaps\Icons\STAI.bmp:[Stairs sheet]{}|MSTAIR;
#30,#Bitmaps\Icons\GRID.bmp:[Show GRID sheet]{}|MGRID;
#31,#Bitmaps\Icons\NGRID.bmp:[Hide GRID sheet]{}|NGRID;
```

As all the lines of this files look like these, just insert this part in the logical order of numbers.

Explanation:
#NN codes the location of the buttons on the toolbars.
#Bitmaps\Icons\XXXX.bmp: indicates the file to use to display the icon. Don't forget the colon after.
[whatever] is the hint text displayed when you hover over the icon.
{command} is the command launched when you press the right mouse button. Not used in these examples.
| separates the right click command and the left click command. Note that the left click command is not in brackets. Don't forget the semicolon at the end.
You can just copy/paste this code.

It's now time to launch CC3 and check to see that everything works fine.
Open CC3, click on the *New Map* icon 📄, make sure the **Pick a predefined template** radio button is selected, choose the **Other** Map Type and click **Next**. Select the Blank.FCT file.
If your map is not in dungeon mode click on the Dungeon Menu icon 🏛️. Depending on the organisation of your toolbars, your screen should look like:

Icons from CA46
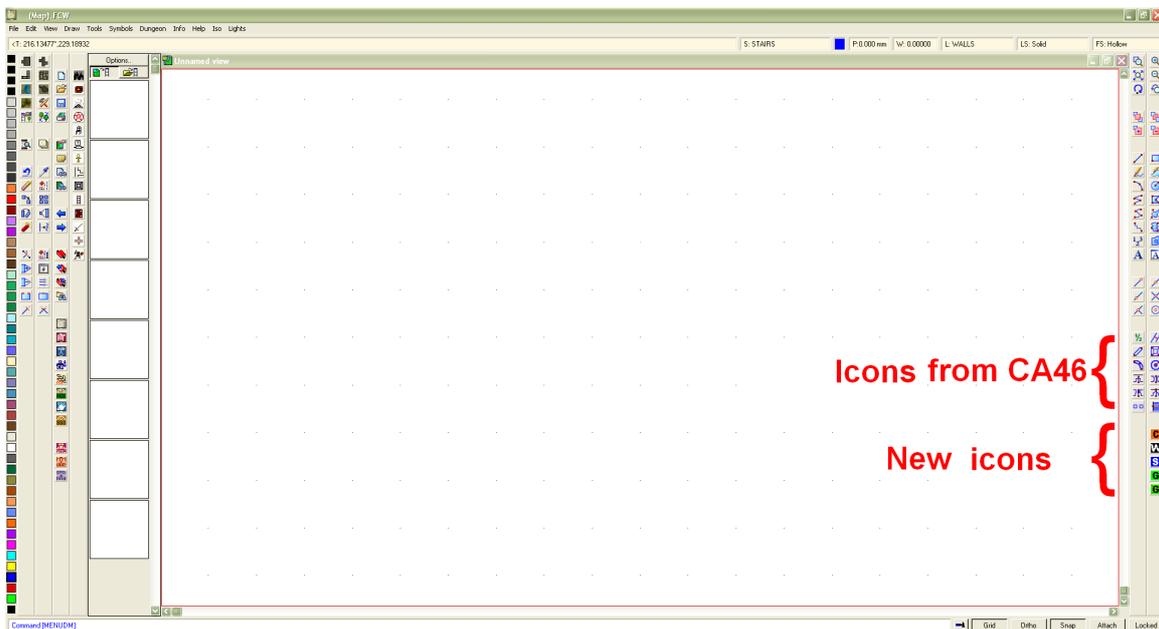
New icons

Now you may be tempted by clicking on the new icons... Alas, they don't work...yet.

First you need to load the file containing the new macros. This is done by the *Load macros* command (**LOADMAC**↵) you'll find in the *Tools→Macros→* menu. Browse the macro file from page 2 and click **Open**.

You'll need to do that every time you launch CC3. However there are two ways to bypass this:

1) you can add the macros directly to the FCW32.mac file – which is opened by default – without risking anything (provided you didn't copy the carriage return icons but replaced them with the real thing).
The drawback is that each time there is a new software update, there is a chance the FCW32.mac file will be modified and you have to retype everything.

2) you can attach a command to a file by using the *Map Notes* tool. You do it like this:
    i. Invoke the command in the *File→Drawing Properties* and click on the **Map Notes** button or just click on the *Map Notes* icon 📝.
    ii. Click on the **New** button unless you already have an *OnOpenMacro* line in the list.
    iii. Name the New Note *OnOpenMacro* (if it already exists click on the **Edit** button, picture left)
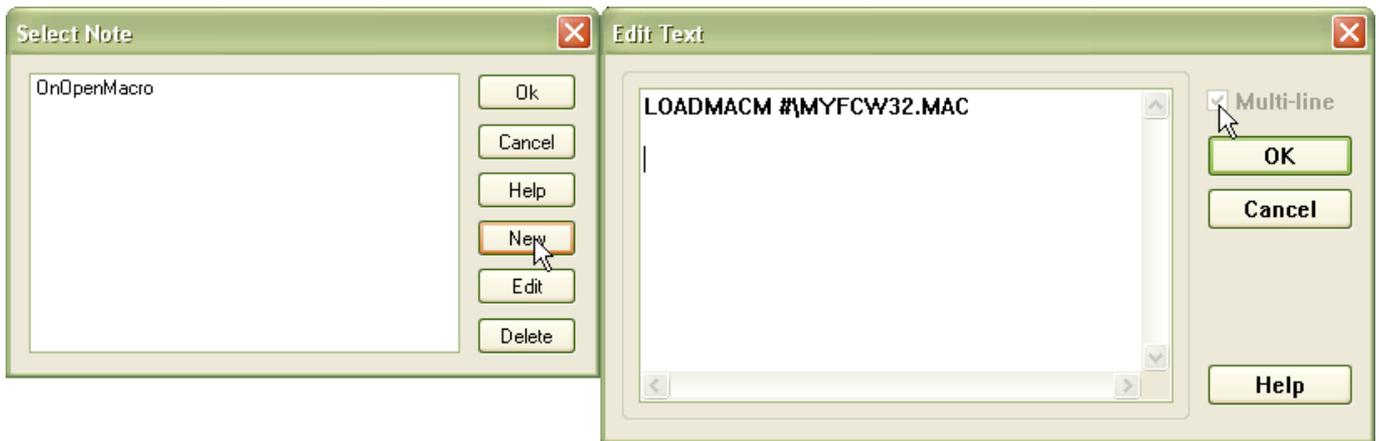
    4. A pop-up appears labelled Edit Text (picture right), check the Multi-Lines box and add the following:

```
LOADMACM #\MYFCW32.MAC
↵
↵
```

    of course, substitute the MYFCW32.mac name by whatever name you chose page 2.
    5. Click **OK** then save your file as a standard CC3 .FCW file. You can also save it as a map template (.FCT) to reuse. In that case reload the .FCW file.

That's it for the first part. In the next part I'll do a review of the most frequently used CC3 commands and starting from part 3 the mapping begins...