

File: CC2Guide-NewBattles&Maps.PDF

Format: PDF

Date: March 24th, 2002

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Last revision: July 24th, 2009

Close Combat 2 "A Bridge Too Far"

The Batnames-File Guide

(Mac- & PC-version of CC2)

What it is

"Close Combat - A Bridge Too Far" (abbreviated CC2, ABTF, CC2-ABTF) was the second game of the CloseCombat-series created by Atomic and presented by Microsoft to the Mac-community. It was also the last game of this series for the MacOS. The series was then continued by SSI (later by UbiSoft and Destineer) for PCs only (up to day CC3, CC4, CC5, The Road to Baghdad, CCM (purchased by USMC in 1999), CoI, CCMT, CC:WaR and CC:TLD). CC2 was released in 1997 on a hybrid-CD, running on PCs and under the MacOS 7.5 up to 9.2.2 / MacOS X 10.2.8 / 10.4.11 (in Classic environment on PPC-Macs) as well. Later (localized) releases of CC2 were for PCs only. A trial demo of CC2 was also released in 1997.

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- The scale of CC2 maps
- How I made the conversions from CC3-maps to CC2-format (under MacOS)
- Revealing XXX-Corps-progress graphics data in 2009

Credits and all my thanks to the following programing gods:

Mick Conmy (mick xe5) (for his excellent texts on his site <http://users.intrepid.net/~mcconmy/>), Adam 'The Man' D'arcy (who made public the file formats for the CC2 map graphics), Gerry Shaw (aka TinTin) (for his great tools Texture Maker v.2 and TM3 and MapMaker), Vincent Viaud (for solving the LOS file structure), Andrew (The Naked Foot) Glenn (for his great MapMaking Guide), The Other Dave (David R. Tidy, for his CC2Faq.wri), NL_Oxcart, George Thanos, Taki (for his PacificFront mod, my first encounter to CC2-editing), GS_Marcks, Chris Ellens (for his great CCEdit for Mac), Mark Clouden 'Escobar', Cpl Filth (for his great SprTool), Frantz 'Fritz' Pergolini, Frank Fijneman, Robert Valerian 'Cappy' Ellison Ralph, Marcus 'Zorbo' Hofbauer, Piotr 'Czolg' Lewandowski, Kyle Scott 'Fish', Riccardo Mariani, Hikehara, Mizuchi, Kelly Kranendonk, Konrad, David Vilmen, Okke (for his link table), Ugur and Xian ... and all the people not mentioned above, who helped CC2-editing to come true. And to Nembo for further infos in 2009!

This file uses texts from following sources on the Internet:

- <http://users.intrepid.net/~mcconmy/MapFAQ.zip> <-- first of all
- <http://users.intrepid.net/~mcconmy/cc2faq.zip>
- <http://users.intrepid.net/~mcconmy/cc2eFAQ.zip>
- <http://home.wanadoo.nl/cclinks/morecc2maps.html>
- offline since 2003: <http://www.xian99.demon.co.uk/cc2/harddrive.html>
- offline since 2003: <http://www.3dnature.com/artag.html>

Making your own maps

On the Macintosh you can use the program CCEdit by Chris Ellens (<http://www3.sympatico.ca/ellens/ccedit/>) to create your own custom maps. For making maps on a Windows-PC please refer to Mick's (xe5) CC2-MapFAQ (link see above) or the old CC2-MapMaking-Guide by NakedFoot. His CC3-MapMaking-Guide is available via CSO (<http://www.closecombat.org/>, now <http://www.closecombatonline.com/>). On a PC you can use Cpl_Filth's CC-map editor "3C.exe" (<http://www.student.oulu.fi/~psaastam/>) and Tin Tin's tools to create maps (<http://www.organicbit.com/closecombat/>). Another actual (2005) source for most of the CloseCombat tools is JimmyD's toolshed: <http://www.wargamer.com/Hosted/CCJimmyD/index.htm> and Mooxe's new site <http://www.closecombatseries.net/>. Since 2006 my own CC-map editor "5CC" is available via my site <http://www.ftf.claranet.de>, for both MacOS/MacOS-X and W2K/WinXP/Vista/W7.

Implementing new maps

Making new maps for CC2 requires to give the filenames (Map####, Map####.los in the folder Data/Maps, BGmap####, Bridg####, MMmap####, OVmap####, Roof#### in the folder Graphics/Maps) of your new map a 'slot number'. You can use an existing number, for example 320 (the map / slot used by the trial demo). If you place the new files in your CC2 installation, it will overwrite existing datas. This will be the right way if you are making a complete new mod. But if you only want to expand the list of playable maps, you can use Ugur's method for expanding the number of maps displayed in the maps list. It will have no effect upon the original game play, that means also, you can play the map only in single battle or battlemaker play:

Ugur's method for adding CC2 maps

Original file from Okke's site (<http://home.wanadoo.nl/cclinks/morecc2maps.html>), where he posted this memorandum written by Mick McConmy (xe5) dated Jan. 23rd, 2001:

Open the ABTF/data/base/batnames file in Notepad, change the value for the total number of maps, in the beginning of the file, from 33 to 34 by placing cursor immediately right of the second 3 in '33' and backspacing once.

Find the values for the last 'battle' in the file (Schjindel Dunes) /Schjindel Dunes/3/32/1/321/1/ In Notepad every slash will be seen as a black block. Select one of these black blocks and copy it. Place your cursor immediately right of the black block to the right of the last '1' above (ie immediately before the '11' following). Type in your new battle name, paste in (CTRL+V) the black block you copied. Type '4'. Paste in another black block. Type '40'. Paste block. Type '1'. Paste block. Type '401'. Paste block. Type '1'. Save the file.¹

¹ BATNAMES-Example: 5
 Quick Tour of A Bridge Too Far
 Monitors and the Toolbar
 Viewing Terrain
 Infantry Tactics
 Armor Tactics
 34
 Dunkerque Beach
 4
 40
 1
 401
 1
 Arnhem Rail Bridge
 1
 10
 ...

Create a 1401 folder in ABTF/data/battles. Copy in the aloob, axoob & scenario files from the 1321 folder. Open the scenario file in Notepad, edit the 321 at the top of the file to 401, save.

Run the game, scroll to the bottom of the Battles list in the top window of the command screen, select your new battle name, click Battlemaker and create your BM. Playing the new battle 'as is' result in the use of the battle 321 forces, deployment and victory locations.

To create a second new map slot Edit ABTF/data/base/batnames change the value in line 7 from 34 to 35 Find the values for the last 'battle' in the file (ie the last map you added) /last new map name/4/40/1/411/1/ Select a black block and copy it. Place your cursor immediately right of the black block to the right of the last '1' above (ie immediately before the '11' following). Type in your new battle name, paste in (CTRL+V) the black block you copied. Type '4'. Paste in another black block. Type '41'. Paste block. Type '1'. Paste block. Type '411'. Paste block. Type '1'. Save the file

Create a 1411 folder in the ABTF/data/battles folder. Copy in the aloob, axoob & scenario files from the 1321 folder. Open the scenario file in Npad, edit the 321 to 411, save.

Run the game, scroll to the bottom of the Battles list in the top window of the command screen, select your new battle name, click Battlemaker and create your BM. Playing the new battle 'as is' result in the use of the battle 321 forces, deployment and victory locations.

Repeat as necessary to add more maps using different 3 and 4 digit map ID #s [421, 1421 etc].

A short discussion at Ryan Ross' Close Combat HQ Forum (Jan. 24th, 2001) between Riccardo Mariani and Mick McConmy (xe5) (<http://www.ryanross.net/cc/>) revealed the limits of Ugur's method:

The question was: Is that 50 new maps in addition to the original 33 CC2 maps [83 maps total] or 50 maps total including the 33 original CC2 maps [ie. 33 original + 17 new]? If its 50 maps total then that could very well be a limit imposed by the size of the space available under the Battles tab on the CC2 Command Screen.

Riccardo wrote: The second you said. 33 + 15 . Ok, but there is no way to modify the limit of maps on the battlescreen ?

Mick wrote: Probably not. CC2 suffered from having many size limitations in its architecture, most depressingly, the data files. If its 50 maps total then that could very well be a limit imposed by the size of the space available under the Battles tab on the CC2 Command Screen.

The Data/Battles files

After making the graphical artwork (BGmap####, Bridg####, MMmap####, OVmap####, Roof####) and the terrain (Map#### file) and the line-of-sight definitions (Map####.los) it is necessary to define the victory locations (VL's) and deployment zones of a map. This informations are stored in the Scenario-file of this map. You will find/have to store this file in the corresponding folder Data/Battles/1#### for single battle play or in the folder Data/Battles/#### for Ops or Campaign play. In the same folders it is required to store there the files AxOOB (Axis Order of battle) and AlOOB (Allied Order of battle) where the used troops are defined.

If you want to expand single battle play (Ugur's method) or expanding the CC2-Trial-Demo (which can be downloaded from <http://www.microsoft.com/games/closecombat/cc2/>) it is only necessary to add the folder Data/Battles/1####. The CC2-Trial-Demo is not capable to play operations or campaigns.

The meanings of the entries in a Scenario file are as follows:

```

44          Version          // must be always set to 44
Map###      Map name        // the name of the map terrain definition
VictoryLocat-#1  x  y  value // the first VictoryLocation is „Bridge-Blowable“
VictoryLocat-#2  x  y  value // the following VictoryLocations are not „Bridge-Blowable“
VictoryLocat-#3  x  y  value
VictoryLocat-#4  x  y  value
VictoryLocat-#5  x  y  value // Name, Location (X, Y) and Value of Obj (value 10, 20 or 40)
VictoryLocat-#6  x  y  value // max Name-Length is 20 characters
VictoryLocat-#7  x  y  value
VictoryLocat-#8  x  y  value
VictoryLocat-#9  x  y  value
VictoryLocat-#10 x  y  value // 10 VLs must be defined, a not used VL has x=0, y=0, value=0
1400        // Bridge Blow Time, 0=no bridge blowing. Any other value means
              // that the Axis can blow the „bridge“ at the first VL defined in this file

1           // Side to use for initial setup, 0=Allied starting setup, 1=Axis
              // starting setup, other values will cause undefined results
Allied Starting Setup // here starts the first definition of the deployment zones
Mega-X 1  2  3  4  5  6  7  8  9  10 11 12 13 14 15 16 17 18 19
& Mega-Y // Mega-Tile Setup (1-Allied, 2-Axis, 3-Axis free deploy, 0-None)
0  2  2  2  2  2  2  2  2  2  2  0  1  1
1  2  2  2  2  2  2  2  2  2  2  2  0  1  1
... as much lines as the map is large ...
18 2  2  2  2  2  2  2  2  2  2  0  1  1
19 2  2  2  2  2  2  2  2  2  2  2  0  1  1
#
Axis Starting Setup // here starts the second definition of the deployment zones
Mega-X 1  2  3  4  5  6  7  8  9  10 11 12 13 14 15 16 17 18 19
& Mega-Y // Mega-Tile Setup (1-Allied, 2-Axis, 3-Axis free deploy, 0-None)
0  2  2  0  1  1  1  1  1  1  1  1  1  1  1
1  2  2  0  1  1  1  1  1  1  1  1  1  1  1
... as much lines as the map is large ...
18 2  2  0  1  1  1  1  1  1  1  1  1  1  1
19 2  2  0  1  1  1  1  1  1  1  1  1  1  1
#

```

The x- and y-positions are counted in deployment tiles (each tile is 120x120 pixels large), counted from 0, 0. Largest possible size is 19x19 tiles due to memory problems of ABTF.²

The meanings of the entries in the files AIOOB and AxOOB are as follows:

```

41          Version
44          9          17          13          Date of reinforcements
Team        Forced Setup
Class       Rank       Mega-X    Mega-Y    Dir       Map
&
32          4          -1         -1         -1         -1
20          5          -1         -1         -1         -1
...
...
112         5          -1         -1         -1         -1
116         6          -1         -1         -1         -1
@

```

First line must contain always the number 41. The second line contains the historical date of reinforcements for the Axis (if it is an AxOOB file) or Allies (if it is an AIOOB file): year, month, day, hour. The next two lines contain a description of the lines with the teams. The fifth line contains only a

² There are much more memory problems: do not use more than 600 trees on a map, do not establish more than 50 roofs (again the limit 50), do not use more than 19 deployment tiles in each direction.

&. The next lines contain the teams to be used on the map. First column: team class (team class definitions are defined in the base file Teams). Second column: rank of the team (value range: 0 to 6). Mick wrote in his CC2-Editing FAQ: *Rank is similar to Quality (Teams file column H- 0 = Conscript 1 = Green 2 = Average 3 = Experienced 4 = Veteran 5 = Elite)*. Rank = 6 is also a valid value. Third column: x-position (measured in deployment tiles (120x120 pixels large) on the map, if the value is -1, then the position can be changed before starting a battle. Fourth column: y-position on the map. Fifth column: setup direction inside the deployment tile, value 0 to 7. -1 means can be changed freely. Sixth column: map where to be used. -1 means team can be taken to other maps while the operation continues. If there is the number of the battle entered, then the team can only be used in this battle. Last line contains only a @.³

Some words about the fifth column "Setup Dir": the value entered here means the position inside the deployment tile counted clockwise around inside the tile:



To get the deployment position for this 6pdr-team (team number 100 of my CC2-Afrika-Mod) the coding in the "ALOOb" file is for single battle play (in Ops/Campaign play you must enter the map number in the sixth column):

```
41 // Version
42 7 1 6 // Date of reinforcements
Team Forced Setup
Class Rank Mega-X Mega-Y Direction Map
&
...
100 4 11 7 1 -1
...
@
```

The counting starts with 0 (12 o'clock position), 1 is upper right edge (see picture above), 4 is 6 o'clock position and the last possible value is 7 (upper left edge inside the deployment tile). A value for positioning exactly in the tile's center does not exist. -1 means: deploy freely (center ?). The actually used deployment position depends not only upon the value entered there in the fifth column, but also upon the terrain there: the program will not deploy teams in deep water for example.

The sixth column "Map": for single battle play you must enter a "-1" here, otherwise the deployment of the team will fail (that means: the team will not be deployed at all). The feature to fix teams to a single map is urgently needed in Ops/Campaign-play for those teams who are deployed to a special deployment tile (like the 8.8 AT guns in Son Bridge). If the team is not fixed to the specific map/battle,

³ Mick wrote: *Keep in mind though that the AI adjusts force levels depending on the difficulty level of the game you're playing so you may not see every defined team in Veteran or Hero levels. Of course if you add 9 of them you're bound to be awarded at least one.*

and you take those teams to the next "map" during operation, the team will preserve it's deployment position and the deployment might fail (including program abort) on the next map if the terrain there is not suitable for deployment at all (water, deployment zone of the opposing force, buildings ...). But you can assign/fix every team (including infantry) to the map/battle, not only those who have specific tiles for deployment.

The file Data/Base/Batnames

As stated by above (Ugur's method), the key to adding more maps to CC2's map list is the file "Batnames" in the folder Data/Base. Here is a description of this file. Everything discussed here is valid for the full version of CC2 **and** for the CC2-Trial-Demo!

Entries in Data/Base/Batnames

5

Quick Tour of A Bridge Too Far
Monitors and the Toolbar
Viewing Terrain
Infantry Tactics
Armor Tactics

33

Arnhem Rail Bridge

1
10
0
100

1

... followed by more ...

Schijndel Dunes

3
32
1
321
1

11

Arnhem Bridge

1
10

0
104
1

... followed by more ...

Schijndel

3
32
0
321
1

4

Grand Campaign

0

0
1000
104
1

... followed by 3 more ...

its meaning

Number of Boot Camp entries

The 5 Boot Camp missions, only their names are necessary.

Number of entries in the battles list, can be increased up to 50 perhaps.

Name of the **battle**

Campaign (1 = Arnhem ...)

Operation = position of the operation in the campaign

Position of the **battle** in the operation (0, 1, 2, 3, 4)

Map slot number, to display the correct OVMap###-file (**must not be identical with battle number!**)

accessible = 1, not accessible = 0, **change this value to 1 if you want to play additional maps with the CC2-Trial-Demo.**

Last of the 33 battles

Number of entries in the operation list

Name of the operation

Campaign (1 = Arnhem ...)

Operation = position of the operation in the campaign, corresponds to the Data/Ops folders

starting battle in the operation (0, 1, 2, 3, 4)

OVMap### slot number for display

accessible = 1, not accessible = 0, changing this value has no effect when playing the CC2-Trial-Demo.

Last of the 11 operations

Number of entries in the campaign list

Name of the campaign

Number of the campaign, corresponds to the folder Data/Campaign

Starting with first map in the operation sequence

Folder prefix for this campaign

OVMap### slot number for display

accessible = 1, not accessible = 0, changing this value has no effect when playing the CC2-Trial-Demo.

Installing more battles / maps is limited as stated above. Decreasing the number of battles will cause errors when displaying the battles selection menu. If you want to reduce the number of battles in the file "Batnames", don't produce gaps in the battles' list. But you can reduce the battles from the end of the list up to the beginning of the list. If you want to remove an operation or campaign at the start of the list, it will cause an error, too. Better way: toggle the 1/0-value in the last operation/campaign definition to 0 (= not accessible).

Modding Ops and Campaigns

In August 2004 Matt Smith from Australia asked me for informations about operation/campaign modding. This is what I wrote to him:

Most of the original files contain comments, so take a look into them first (thanks to Atomic for the comments!). In addition to Mick's FAQ here are some of my own experiences:

File formats:

all text-based CC2-files are plain ASCII with CR-only-delimited lines (MAC-style), both versions, MAC and Windows, of CC2. Column separation by TAB char. I recommend to use MS-EXCEL to edit these files. On the Mac it is possible to use SimpleText or TextEdit, too.

All files in the folders and all files in their sub-folders "Data/Base", "Data/Battles", "Data/Brief", "Data/Campaign", "Data/Ops" are such text-based files. All Map-Data files inside the folder "Data/Maps" are such text-based files. The "*.LOS"-files are not text-based. That means that all files except for the "*.LOS" files inside the entire folder "Data" and its subfolders are of this file format. Editing them is no real technical problem.

To keep compatibility between Mac- and Windows-version it is essential *NOT TO ADD* LF-chars to these files.

BATNAMES:

the basic key to battle/oop/campaign play is the base-file "BATNAMES". Here you must define every battle/oop/campaign. There is a limit not to have more than 50 maps = 50 battles defined in this file. The reason for this limitation is a memory-overflow condition which might raise when more than 50 battles are defined and CC2 is trying to load additional map information. For more details of the Batnames-file see the text above.

Sector operations:

- In CC2 there is one great campaign defined: "Market/Garden".
- The one and only "Great Campaign" is divided into 3 sector campaigns, numbered from 1 to 3.
- Each "Campaign" (= sector) is divided into operations, numbered from 10 to 13 for the sector #1, from 20 to 23 for sector #2 and from 30 to 32 for sector #3. All in all there are 11 operations.
- Each "Ops" can contain up to 6 battles, but the Windows version of CC2 will fail if there are more than 5 battles per operation defined. MAC version of CC2 was tested successfully with 6 battles per operation.

The makers of CC2 have not intended to have more than 8 battles per operation! Please look inside the original file "Data/Ops/10/Ops": in line 13 (called "battle list") there are only 8 entries.

BATTLES:

For every intended battle there must be two folders defined inside the folder "Data/Battles":

- one folder must wear the number of the battle as its name (the number of the battle can vary from the number of the map used by this battle, that means, that multiple battles can use the same map

(as done with Map100 by the original CC2 game)). The datas out of these folders named after their battle number are *USED DURING OOP/CAMPAIGN* play only!

- the second folder must wear the number of the battle preceeded by an "1" as its name. The "1" stands probably for "single battle". The datas out of these folders preceeded by the "1" are *USED DURING SINGLE BATTLE* play only.

Inside all these subfolders of "Data/Battles" must reside files called "AIOOB" (Allied Order of Battle), "AxOOB" (Axis Order of Battle), "Scenario". Only the file "Scenario" contains the reference to the map number actually used by this battle (and much more map related stuff, see the texts above).

There are 5 boot-camp folders "0", "1", "2", "3", "4" defined inside "Data/Battles", which contain an additional file "Script", which can be patched, too. The "Script" files describe the timeline for each boot-camp tutorial. No one has patched such a file yet.

BRIEFING:

The user-interface-screen for the operation's briefing ("Briefing screen") can accomodate up to 4 operations per sector. And each operation can accomodate up to 5 battles in this screen. The Windows version of CC2 will run in trouble / will fail if there are more battles defined for an operation. Mac version was tested succesfully with 6 battles per operation, but this will cause some strange screen arrangement of the red/green-buttons.

The lower part of the "Briefing screen" shows the briefing text. The Allied text is stored in the files "Data/Brief/albr##", the Axis text is stored in the files "Data/Brief/axbr##" where "##" stands for the number of the operation.

The entries inside these briefing files are plain ASCII CR-delimited. First line contains a number sign "#", second line the name of the operation. Then the text for each battle follows, preceeded by a number sign char "#". Blank lines are respected by CC2. The end of the file is not marked seperately.

Missing of one of the briefing files will abort the game.

CAMPAIGN:

There is one folder for each sector: folder "Data/Campaign/1" contains the scenario datas for sector #1, folder "Data/Campaign/2" contains the scenario datas for sector #2, folder "Data/Campaign/3" contains the scenario datas for sector #3. The meaning of the entries in this "Sector" files are not completely revealed (perhaps Mick xe5 knows more):

- first line: file ID-number "43",
- second line: name of the sector,
- third line: number of operations in this sector,
- forth line: start date: YY MM DD Hour,
- fifth line: end data: YY MM DD Hour,
- sixth line: ****unknown**** to me,
- seventh line: ****unknown**** to me, perhaps requisition points at startup for Al / Ax,
- 8th - 13rd line: ID-number of the operations, not used slots must be set to "-1".

There are three additional files inside the folder "Data/Campaign":

- "Grand": similiar to the "Sector" files, file ID-number "42", but the meaning of lines 6 .. 13 is not clear to me. Essential: the contents of this file must be terminated by a number sign char "#". The meaning of line 5 was revealed by NEMBO in 2009. See special chapter at the end of this document on page 15.
- "XXXOOB" = XXX Corps Order of Battle file. The key-file to have armour for the Allies during operation and/or campaign play! File ID-number "41" like all other "AIOOB"/"AxOOB" files! So the data sequence is the same like in all other OOB files:
 - file ID-number "41",
 - Date of reinforcement YY MM DD Hour
 - comment line

- comment line
- "&" = here begins the team list
- various amount of lines containing teams,
- "@" = end of the team list

Format of the team entries in OOB files:

team-number/Class TAB team-quality/Rank (1..6) TAB Mega-X TAB Mega-Y TAB Direction TAB Map

where Class and Rank correspond to the entries in the base-file "Teams"

and Mega-X and Mega-Y mean where to place the team on the map (mega tile = 120x120 pixel)

and Direction means the orientation of the team on the map (essential for guns)

and Map means if the team cannot leave the map then this entry must contain the number of the battle. If there is a "-1" then it means "not defined". For the file "XXXOOB" Mega-X, Mega-Y, Dir and Map should be set to "-1".

If you have no armour defined here for the Axis then you will have no armour on first appearance of XXX Corps during campaign/ops play until reinforcements have arrived (except the armour defined in the battles AxOOB file of your battles).

- "XXXReq" = XXX Corps Requisition table, a list of dates, each followed by a list of teams which the gamer can select from the requisition screen. The number of dates is not limited:
- file ID-number "41"
- date YY MM DD Hour
- Points at Start
- Points per Re-Inforcement period
- "&" = here starts the team list
- various team entries: team-class TAB amount TAB comment
- "#" = here starts a new date entry
- date YY MM DD Hour
- Points at Start
- Points per Re-Inforcement period
- "&" = here starts the team list
- various team entries: team-class TAB amount TAB comment
- ...
- "@" = end of all lists = end of file

OPS:

for each operation there is a sub-folder inside the folder "Data/Ops" wearing the number of the operation. In each sub-folder are 5 files:

- "AlReq" = Allied Requisition list,
- "AxReq" = Axis Requisition list, file format identical to "XXXReq" (see above),
- "AlOOB" = Allied Order of Battle,
- "AxOOB" = Axis Order of Battle, file format identical to all other "OOB" files,
- "Ops", the file containing the operation definition. Here are the battles bundled.

The file "Ops" is essential to setup the number of battles for the operation and their sequence, separately for Axis and Allies. The meaning of the entries:

- line 1: file ID-number "47"
- line 2: operation's name
- line 3: operation's number (2 digits)
- line 4: first battle of this operation
- line 5: historic start YY MM DD Hour
- line 6: historic end YY MM DD Hour
- line 7: date of Allied linking-up with XXX Corps YY MM DD Hour⁴

⁴ Mick (xe5) wrote in his editing FAQ: while you can add armor to the OOBs to start the Op, the game won't allow you to add armor to your Req. pool. If you move the date of XXX Corps link forward, you can have armor in your Req. pool but not AB teams as Brit. infantry will comprise the OOB from that point on. I circumvented this by modifying a few tanks to become US AB team types, so they appear in the original OOB as well as in the Req. pool.

- line 8: ID-number of the division badges used out of the graphics file "Gadget0" for Allies TAB Axis
- line 9: Supply, 10 TAB-separated entries (unknown meaning to me)
- line 10: Expected control, 10 TAB-separated entries (unknown meaning to me)
- line 11: value of op
- line 12: number of battles!!!!
- line 13: battle list: TAB-separated list of the battle numbers used by this operation
- line 14: multiplier (for each battle ?)
- line 15: empty line

now the entries for the battles' sequence follow: each "sequence" (as I will call it here) contain:

- name of the sequence (should be identical with briefing text)
- Progression (Advance of the Allies/ Retreat of the Allies), that means the numbers of the battles where the next fight will take place. "-1" means no further continue.
- Time between
- Date of first counter-attack
- Date of second counter-attack
- operation reinforced (3 TAB-separated values of unknown purpose to me)
- force bonus (Allies / Axis)
- bonus on retreat (Allies / Axis)
- "1" means "map has ROAD" to defend, "0" means "no road"
- "1" means "map has BRIDGE" to defend, "0" means "no bridge"
- "1" means "map has LANDING ZONE" to defend, "0" means "no LZ"
- bridge blow time
- bridge repair time
- initially controlled by "0" = Allies, "1" = Axis.

Just a remark: the progression means: Allied Advance = Axis retreat. If you want to test the linking of Allied advance you must play as "Axis" and retreat.

You should adjust the graphical files relating to modified operations and battles: the sequence of all campaigns/ops/battles must be adjusted in the "OvData#" files, too (see separate guide: CC2Guide-UI_Interface_OvData.pdf). The names of the operations/sectors are stored as graphical gadgets in the "Gadget#" files. The number of graphics inside these "Gadget#" files is limited and their sequence should not disturbed. Another limit why we cannot have more than 3 sectors and more than 11 ops. But it may be possible to add a 4th sector with out ops, but only with single battles. The key to do it is again the "Batnames" file: just enter here the additional battles (see: "Ugur's method") and disable the additional ops and sector. You can add a new "OvData4" from scratch and expand the "UI" / "Interface.cc2" file to have a map localization screen for your additional battles. To view the position of the additional maps of "Sector 4" you must expand the file "OvData0".

Installing CC2 for playing mods

On a PC you must have the full installation of CC2 to use maps and mods. Modifications will take place directly on the HD.

For the Mac there exists only the method to install patches or new maps to ABTF on an image of the original CD. This is reported by Matthew Hills (<http://www.stanford.edu/~hills/CCIIabtf/>), Xian (<http://www.xian99.demon.co.uk/cc2/hardrive.html>) and Chris Ellens (<http://cc2.20m.com/hd.html>) on their homepages. As mentioned by Xian the best way was reported by Frank Fijneman to get CC2 to run without the CD (slightly modified):

How to install and use Maps or Mods for CC2 under MacOS:

1. Take your original CD.
2. Place it your CD-ROM-drive.
3. Install the program on your harddisk (small install).
4. To use Mods it is not necessary to change the installed files.

5. Replace the main program "A Bridge Too Far" with the updated version found on the web site of Microsoft (version 2.0b).
6. Increase the memory for "A Bridge Too Far" or the "CC2_100201 trial retail" from 19408 KB up to 48000 KB if you want to use very large new maps like the "Airfield"-map by Adam "The Man" D'arcy or my map "Ramelles".
7. Create an uncompressed disk image file from the original CD using "Disk Copy" or something else. Be sure not to make it read only. The volume's name must remain "Close Combat".
8. Place the Mod-Files at the correct places on this image as described in the author's ReadMe-files.
9. Strip all "LF"-chars from the "TXT"-files of the Mod, if they are coming from PC's.
10. Remove the original CD from your CD-ROM-drive.
11. Leave the disk image mounted (activated).
12. Start the main program "A Bridge Too Far" from the harddisk.
13. If the program asks for movie-files (xxxxxxx.mpg not found), press the "abort"-button and click the mouse or double-click it. Even if the program asks for the CD in the SCSI-drive press the "abort"-button. Do not make a search, it will fail!
14. The program now will start, showing the new maps (or battles, campaigns), when you scroll down through the menu. Not replaced old maps will be also shown.
15. Select in the "Preferences"-option "Videos off", and you will be no longer asked for the CD or movies, but now the intro-picture will be displayed starting the game next time.
16. After finishing the game, you can delete the disk image or leave it for the next day, DO NOT MAKE ILLEGAL COPIES OF THE SOFTWARE.

If you have only the CC2-Trial-Demo

You can download the trial-demo from the internet and install it on your HD. You can modify the file A Bridge Too Far Trial Version/Data/Base/Batnames: change the last 0 values (sixth line in the battle definition) in every last battle definition to 1, and you can paste in custom maps to play them. Don't forget to create the necessary Data/Battles subfolders named Data/Battles/1### (where ### stands for the slot number) and paste suitable AIOOB, AxOOb and Scenario file in. Campaign and operation play is not possible, also battlemaker files or saved files cannot be played. You can substitute every file of the trial-demo by files from mods except for the executable file itself. You can also paste in vehicles from mods to have more vehicles in the trial-demo.⁵ And the executable file can be changed too (like the regular executable file, see my guide CC2Guide-MacResourcesPat-v2.pdf).

The scale of CC2 maps

An exact statement to the scale of CC2-maps can be found at the site <http://www.3dnature.com/artag.html>: „A team of 8 artists spread between Atomic Games and Microsoft produced the map images for the game Close Combat 2: A Bridge Too Far. ... The maps try to accurately portray segments of actual battle areas in the **scale of 5 pixels per meter**. Some liberties were taken with textures and colors in the interest of gameplay and clarity, but historical accuracy has been a strong driving force.

A scale discussion at Ryan Ross' Close Combat HQ Forum at March 19th, 2001 showed, that some details are larger than this scale:

⁵ The CC2-trial-demo contains only the following vehicles:

- 6 Sherman BR
- 17 Sherman 76 BR
- 18 Stuart M5 BR
- 19 Panther GE
- 29 StuH 42 GE
- 56 17pdr AT gun BR
- 60 Firefly BR

Silmaauki wrote: Normal scale is 5 pixels is 1 meter. However the vehicles are in scale of 1.5 times larger than the normal scale -> 7,5 pixels is one meter! And soldiers are even bigger. Scale is 2 times the normal scale. So is it the normal view which is 5 pixels per metre, or the zoomed view? Normal - when we are looking at the map. The zoom (in CC3) does not create any additional data -> this should apply to the zoom as well, the pixels are just larger.

Dynomite wrote: From the various planes in CC5 I figure one meter = roughly 8.93 pixels :)

My response to it was: Mick (xe5) stated earlier in his MapFAQ that the scale of CC2 is 5 pixels = 1 meter. Nice to here in which cases the scale is changed. I discovered a german steam locomotive on the CC2-map 111. This locomotive is a scanned Maerklin-Model-Railway-Toy from which the original length is known. So I made the following description to the scale:

Something about the scale:

- the airplane-.JPG-files (Western Front) which can be found on the site of Mick Conmy (mick xe5) (<http://users.intrepid.net/~mcconmy/>), are nearly of the scale 10 pixels = 1 meter,
- Mick (xe5) stated in the file 'CC2 Editing FAQ.doc' on page 8 (<http://users.intrepid.net/~mcconmy/cc2eFAQ.zip>): 'Multiply each dimension by 120 to get the pixel dimensions; the scale of CC2 is 5 pixels per meter'.
- the blown locomotive on the CC2 map 'Oosterbeek North' (= Map111) has the length of 193 pixels. It seems to be an adoption of the never-build BR-53-steam locomotive by Borsig (Mallet type), which should have become the original length of 27 meter. This will mean a scale of 7 pixels per meter. - most of the CC3-maps presented on the Internet with planes on them use planes with a scale of approx. 10 pixels per meter;

How I made the conversions from CC3-maps to CC2-format (under MacOS) in the early times and today

I strongly recommend the tool by Chris Ellens: <http://www3.sympatico.ca/ellens/ccedit/> CCEdit v1.4a5 for making CC2-maps from scratch or to edit existing maps. (running under MacOS 7.5 up to 9.2.2 / 10.1.5). If you are using a Windows PC, please look inside the CC2-MapMaking guide by Naked Food (no longer available on the net) or Mick "xe5" Conmy's CC2EditingFAQ.doc: <http://users.intrepid.net/~mcconmy/>

Next step: ask the author of the original CC3/CC4/CC5/RtB map for permission (in fact I have forgotten to do so, sorry Manoi).

Download the requested map in CC3 format. Remember: CC3 maps have the tree-shadows on the map background graphic, because their Terrain-file's trees don't contain shadow informations. I'm not exactly sure concerning CC5 maps this topic. But it doesn't matter at all, the CC2 tree shadows are a little bit larger than those in CC3, so it will fit. The sun direction is always the same in CC2/CC3/CC4/CC5.

How to do in the early times: unzip the CC3 map datas. You will need only two files for the graphical artwork: mapname.BGM (background graphics) and mapname.RFM (roof and interior graphics). Can be done with Stuffit Expander (MacOS) or WinZip (Windows) and will work with ZIP-archives and plugins as well.

You can convert the *.BGM files from CC3/CC4/CC5 format to TARGA (*.TGA) graphics by using TinTin's Ms-Dos tool CC2TGA.EXE (it is not the identical program like his older CC2-tool CCTGA.EXE, but works similiar)

http://www.organicbit.com/closecombat/gerry_shaw@yahoo.com

I'm not sure if you are familiar with Windows, but here is the point where you will need it (or Virtual PC): launch the Command-line environment and type in the Ms-Dos command line C:>cc2tga mapname.BGM mapname.TGA

If you are using Virtual PC, you can define a MacOS folder as a virtual Windows volume, it is possible to place the "CC2TGA.EXE" and the *.BGM files in it and to run the entire progress on this "volume".

Now you have the background graphic and can enjoy it with any graphic editor you like. You will see, that all the maps' sizes are divided in 120x120 pixel tiles (called deployment tiles). In CC2-Macintosh version it will cause a program abort if you are using maps larger than 19x19 deployment tiles (2280x2280 pixels). CCEdit can handle larger maps. I strongly recommend not to implement maps larger than 19x19 deployment tiles in CC2. Most of the CC3/CC4/CC5 maps are larger, so you must make a reduction. Perhaps by cutting off some graphics (correct and all original CC3-maps) or by shrinking the scale (some of the custom maps with wrong scale, see the CC2-CC5 scale discussion in this guide).

You can easily import the background graphic in CCEdit, if you have it converted to MacOS specific PICT-format. Do not use the compression algorithms of the PICT-format or any other compression (RLE in TARGA, JPEG).

To retrieve the original roof/interior graphics, you can use Cpl_Filth's Windows tool "RoofExt.exe" from his site:

<http://www.student.oulu.fi/~psaastam/RoofExt.zip>
psaastam@mail.student.oulu.fi

Place the file "RoofExt.exe" and the mapname.RFM file in the same folder and run under Windows / Virtual PC command line C:>roofext mapname.RFM

The program will produce a lot of file named "roof000#.BMP" and "Interior000#.BMP". You can edit this *.BMP (Windows Bitmap) graphics with any graphics editor. "RoofExt.exe" requires the Java Virtual Machine to be installed (you can download the actual version for Windows from Microsoft).

Using CCEdit you can not import the interior graphics directly. See the ReadMe-file of CCEdit: switch to Roof-view, mark the "roof-area", Define it as a roof (which will transfer the "roof-area" graphics to the clip-board), turn to your graphics editor, create a new picture from the clip-board. You will find there the "roof-area" and you can paste in the graphics of the original interior graphic into the correct position. Select all and copy it to the clip-board. Now turn to CCEdit again and switch there to Interior view: the selected area will be a black hole. Paste in the content of the clip-board and the job for the first interior is done. Don't forget to save your work.

All other work must be done in CCedit: elevation, terrain definitions, LOS-file generation. Another good tool for quick changing the elevation is the simple text editor TexEdit (shareware): you can easily change all elevation definitions BEFORE you have changed the terrain definitions.

Don't forget to include a ReadMe mentioning the original author and your name. And perhaps the legal tools you have used.

How to do today: in Oct. 2003 I made a program for MacOS / MacOS-X and Windows: **"CC2Tools" (actual version v4.01)**, which can do all the jobs mentioned above to convert a map from CC3-, CC4-, CC5- or RoadToBaghdad-format with all its files (including roof and LOS) to CC2 format and back. It's available from my sites <http://closecombat2.fortunecity.com/> , <http://www.ftf.claranet.de/> and <http://www.closecombat2.claranet.de/> In this case you will need and can use all original map files.

Revealing XXX-Corps-progress graphics data in 2009

In 2009 NEMBO located the datas which are responsible for the drawing of the XXX Corps progression line. He gave me the permission to post his email it here together with his screenshots:

Been slowly working on the operation and campaign files for Kreta. Found out something about the data/campaign/grand file, you might find interesting.

CC2-File: "Data/Data/Campaign/Grand"

42

Market/Garden

44 9 17 11

44 9 26 20

31 31 21 21 23 23 13 11 11 11

31 2

32 1

30 6

20 1

21 1

22 1

23 4

13 1

#

The 5th line has the following ten numbers:

31 31 21 21 23 23 13 11 11 11

Each of the ten numbers represents one day in the grand campaign starting with September 17th. The numbers used reflect the expected current location of XXX Corps. The values expected are those used by operations. For example 31 = Son. Thus XXX Corps is not expected to progress beyond Son until the 3rd day (September 19th). Changing these values effects the green line drawn on the strat map for XXX Corps.

The value 0 can also be placed instead of an operation ## for one or all of the ten days. Any day which has 0 instead of an operation ## will for that entire day not have the green line drawn on any of the strat maps. Also on the debriefing screen the location of XXX corp will be listed as the current time of day in the operation instead of the location of XXX Corps. I've included an image showing this strange time/place mix up on the PC.



What other effects using the value 0 has I do not know. Likewise I am also unsure if the 5th line can be expanded beyond ten values, further testing will be in order.

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March 24th, 2002

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