

Mission Maker

A Manual for Mission Editing

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Version 1.00

This document is not supported nor authorized by Westwood Studios®.

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Overview

This document has been compiled from various sources and from hours of trial and error hacking. It is, by no means complete and by no stretch of the imagination, authorized by Westwood Studios®. It is, rather, a guide to get you started in making your own missions for Command & Conquer®. This document is not meant to replace existing FAQs or manuals, but rather, it is meant to give a different perspective to mission making. I have included a short bibliography and apologize to anyone I may have left out. C&C is a great game to play and an even greater game to hack.

What This Is and Is Not

This is a *guide* to help you edit INI files extracted from the GENERAL.MIX file in the Command & Conquer® game. It is not a map editor. It is not an authorized version.

Tools You Will Need

- 1- An ASCII Text Editor. Any one will do, but it is recommended that you use one that allows global search and replace. DOS EDIT works well. CC-Tools is excellent.
- 2- CCMAP.EXE The only map editor to use, it can be found on most good BBS or direct from the authors at <http://www.intertrade.it/users/rajan/cctemple.html>
- 3- MIXMAN.EXE This is the program that allows you to extract the MAP and the INI files from the GENERAL.MIX file.
- 4- Plenty of time and patience.
- 5- While not a necessity, EDITINI is a very helpful tool.

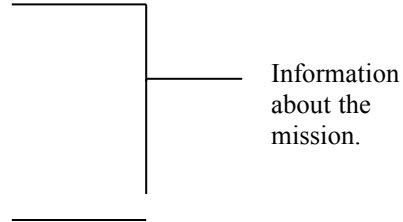
Anatomy of an INI

The SC...EA.INI file is found inside the GENERAL.MIX file. It is the script that makes the game missions run. It also holds the locations of all map graphics that can be changed using CCMAP. I have included the file REDBEACH.INI to be used as an example. This file has been annotated at each major line of commands. I will expand on each item in the appendices.

SAMPLE INI FILE

```
; ! This file has been processed by BaseIT v1.00
; ! BaseIT added 3 lines in the [Base] section
; ! Get your copy of BaseIT at: http://www.htsa.hva.nl/~barryk
; !
; Red Beach (c) M Mooney

; moondogi@MSN.com
```



```
; Note that a semi-colon will insert a note line or a note after a command line without
; affecting the file's operation
```

[BASIC]

CarryOverCap=-1	???	
CarryOverMoney=0	Number of credits carried forward from the previous mission	
Intro=x	Introduction cut scene. See appendix A	
BuildLevel=1	Relates to the mission level, only as a notation	
Theme=No theme	Music played during the game.	
Percent=100	???	
Player=GoodGuy	Player or "house" GoodGuy(GDI) BadGuy (NOD) Neutral (Civilian) Special (Builds NOD or GDI)	
Win=CONSYARD	Video shown if you win.	See appendix A
Lose=GAMEOVER	Video shown if you lose.	See appendix A
Brief=GDI1	Briefing video.	See appendix A
Action=Landing	Video shown at game start.	See Appendix A

[MAP]

TacticalPos=3704	???	
Height=23	Map height.	
Width=56	Map width.	
Y=39	Horizontal coordinate of upper left corner.	
X=06	Vertical coordinate of upper left corner.	
Theater=TEMPERATE	Map surface. Temperate, Winter, Desert are choices.	

[GoodGuy]
 FlagHome=0 Not sure, multi player games?
 FlagLocation=0
 MaxBuilding=150 Maximum number of buildings?
 Allies=GoodGuy Who your friends are, can be more than one ally.
 MaxUnit=150 Maximum number of units?
 Credits=76 Number of credits to start multiplied by 100. This is 7600 with no carryover
 Edge=South Where reinforcements and transports will enter.

[BadGuy]
 FlagHome=0
 FlagLocation=0
 MaxBuilding=150
 Allies=BadGuy
 MaxUnit=222
 Credits=100
 Edge=North

[Neutral]
 FlagHome=0
 FlagLocation=0
 MaxBuilding=150
 Allies=Neutral
 MaxUnit=150
 Edge=North
 Credits=0

[UNITS] See Appendix C
 0=BadGuy,BOAT,238,3890,0,Guard,None
 starts at
 trigger

This is a NOD gunboat that is damaged and cell 3890 and is set to guard with one attached

1=GoodGuy,BOAT,256,3877,0,Hunt,None
 2=GoodGuy,BOAT,256,3817,0,Hunt,None
 3=GoodGuy,BOAT,256,3813,0,Hunt,None
 4=GoodGuy,JEEP,256,3229,0,Guard,None
 5=BadGuy,ARTY,256,3150,0,Guard,None
 6=BadGuy,LTNK,256,3131,0,Guard,None
 7=BadGuy,LTNK,256,3120,0,Area Guard,None
 8=BadGuy,ARTY,256,3086,0,Guard,None
 9=BadGuy,BGGY,256,3022,0,Guard,None
 10=BadGuy,LTNK,256,2939,0,Guard,None
 11=BadGuy,BIKE,256,2929,0,Area Guard,None
 12=BadGuy,HARV,256,2802,0,Harvest,None
 13=BadGuy,LTNK,256,2788,0,Guard,None

[INFANTRY] See Appendix D

021=BadGuy,E1,256,2939,2,Area Guard,160,None This is a NOD mini-gunner who is at full strength in cell 2939 guarding aggressively facing SE with no trigger.

004=GoodGuy,RMBO,256,3704,2,Guard,96,None
003=GoodGuy,E2,256,3703,1,Guard,96,None
002=GoodGuy,E3,256,3703,3,Guard,96,None
001=GoodGuy,E3,256,3703,4,Guard,96,None
000=GoodGuy,E6,256,3703,2,Guard,96,None

[STRUCTURES] See appendix E
0=BadGuy,GUN,52,3569,160,ATK1

1=BadGuy,GUN,128,3566,160,dzne This is a turret (NOD) at half strength in cell 3566 facing SE. When destroyed trigger “dzne” is activated.

2=BadGuy,GUN,128,3561,160,None
3=Neutral,V05,256,3459,0,None
4=Neutral,V03,256,3398,0,None

[TERRAIN]
3473=T17,None
3411=T08,None
3409=T08,None

[TEMPLATE]

[OVERLAY]
3705=WOOD Fence section
3704=WOOD
3701=WOOD
3700=WOOD
3697=WOOD
3695=WOOD
3692=WOOD
3642=BARB Barbed wire section
3641=BARB
3640=WOOD
3627=WOOD
3626=SBAG
3625=SBAG
3624=SBAG Sand bag section
3604=BARB
3603=BARB
3602=BARB
3410=TI10 Tiberium (10 units)
3380=BARB
3379=BARB
3378=BARB
3346=TI10

[SMUDGE]

[Triggers] See Appendix F
prod=Time,Production,5,BadGuy,None,0

LOSE=All Destr.,Lose,0,GoodGuy,None,0
 WIN=All Destr.,Win,0,BadGuy,None,0
 RESRV=Time,Create Team,20,BadGuy,NOD10,0
 ATK4=Bldgs Destr.,Reinforce.,0,BadGuy,NOD5,0
 ATK2=Time,Create Team,0,BadGuy,NOD1,0
 ATK1=DESTROYED,REINFORCE.,0,GoodGuy,chopp,1
 dzne=destroyed,DZ at 'Z',0,GoodGuy,None,0

[CellTriggers] When the cell is entered the trigger is activated.

[Teams] ???

[Waypoints] Cells referenced in TeamTypes section. Max. 32 (0-31) There are three important Waypoints A Waypoint of “-1” is not used.

31=-1

30=-1

29=-1

28=-1

27=3415 The default cell where transports unload if not specified.

26=-1 The top left corner of the start of the game.

25=3416 The cell where the smoke flare shows up.

24=-1

23=-1

22=-1

21=-1

20=-1

19=-1

18=-1

17=-1

16=-1

15=-1

14=-1

13=-1

12=-1

11=3569

10=2970

9=3419

8=3418

7=3417

6=3057

5=3055

4=3050

3=3345

2=3416

1=3295

0=3415

[TeamTypes]

chopp=GoodGuy,1,0,0,0,0,7,0,0,0,1,TRAN:1,1,move:9,0,0

NOD1=BadGuy,1,0,0,0,0,20,1,0,0,1,E1:2,4,Move:0,Move:1,Move:2,Attack Units:6,0,0

NOD5=BadGuy,1,0,0,0,0,7,0,0,0,2,TRAN:1,E3:5,2,Unload:5,Attack Units:10,0,0
NOD6=BadGuy,1,0,0,0,0,7,0,0,0,3,TRAN:1,e1:3,E3:2,2,Unload:6,Attack Units:10,0,0
NOD10=BadGuy,1,0,0,0,0,7,0,0,0,1,E2:9,Guard,0,1,1
GDIR1=GoodGuy,1,0,0,0,0,7,3,0,0,2,E1:5,LST:1,0,1,1
GDIR7=GoodGuy,0,0,0,0,0,7,3,0,0,3,E6:4,rmbo:1,lst:1,0,1,1
GDIR8=GoodGuy,0,0,0,0,0,7,3,0,0,3,E3:4,MTNK:1,LST:1,0,1,1
GDIR10=GoodGuy,1,0,0,0,0,7,3,0,0,2,E1:10,TRAN:1,3,Move:2,Unload:2,Attack Units,0,1,1
GDIR11=GoodGuy,1,0,0,0,0,7,0,0,0,2,TRAN:1,E1:15,2,Unload:8,Attack Units,0,1,1
GDIR12=GoodGuy,1,0,0,0,0,7,0,0,0,3,TRAN:2,E2:5,apc:1,2,Unload:2,Guard,0,0
GDIR13=GoodGuy,1,0,0,0,0,7,0,0,0,4,TRAN:1,MSAM:1,E2:5,E3:5,2,Unload:7,Attack Units:7,0,0
GDIR14=GoodGuy,0,0,0,0,0,7,0,0,0,2,mtnk:2,TRAN:2,1,move:3,0,0
HELO1=GoodGuy,0,0,0,0,0,7,3,0,0,2,E2:25,TRAN:1,2,Unload:9,move:27,0,1,1
SEALS=GoodGuy,0,0,0,0,0,7,3,0,0,4,RMBO:1,E3:2,E2:2,LST:1,0,1,1
GDIR15=GoodGuy,1,0,0,0,0,7,3,0,0,4,JEEP:1,E1:3,E2:1,LST:1,0,1,1

[Base] Buildings which are to be rebuilt automatically. Use BaseIT

002=NUK2,805321728
001=NUKE,671091200
000=HAND,654325248
Count=3

[Special]
FlagHome=0
FlagLocation=0
Allies=Special
MaxBuilding=150
MaxUnit=150
Edge=North
Credits=0

[Multi1]
FlagHome=0
FlagLocation=0
Allies=Multi1
MaxBuilding=150
MaxUnit=150
Edge=North
Credits=0

[Multi2]
FlagHome=0
FlagLocation=0
Allies=Multi2
MaxBuilding=150
MaxUnit=150
Edge=North
Credits=0

[Multi3]
FlagHome=0
FlagLocation=0
Allies=Multi3
MaxBuilding=150
MaxUnit=150

Edge=North
Credits=0

[Multi4]
FlagHome=0
FlagLocation=0
Allies=Multi4
MaxBuilding=150
MaxUnit=150
Edge=North
Credits=0

[Multi5]
Allies=Multi5
MaxBuilding=150
MaxUnit=150
Edge=North
Credits=0

[Multi6]
Allies=Multi6
MaxBuilding=150
MaxUnit=150
Edge=North
Credits=0

Let's Do It!

O.K. now that we have looked at an INI file let's get started! Create a sub-directory where you can work on your INI and MAP files. In this directory put CCMAP and MIXMAN. Copy the file GENERAL.MIX from your CD into your C&C directory. When you extract the files from this GENERAL.MIX file you will put them into the sub-directory that you have created as your working directory. For example you can create a directory called C:\INIEDIT. Make sure that you know which GENERAL.MIX file you are working on. Both the GDI and NOD CDs have a

GENERAL.MIX file, but different mission (INI) files. The GDI files start with SCG..... (GoodGuy) while the NOD files start with SCB... (BadGuy). Multi player files start with SCM....

We will now look at each section and explain as much as we know about that section that is relevant to editing or creating a mission. Sections are denoted by brackets [] e.g. [BASE].

[BASIC]

The first section is [BASIC]. Refer to the sample INI file above for all details. The video scenes displayed during the game are changed here. The most important command here is the "Player=" command, this sets NOD, GDI or MULTI players. If you set "Player=Special" you can build both from NOD & GDI and the logo on the menu is a dinosaur head.

[MAP]

The [MAP] section determines the size of the map. If you have incorrect settings here your game may hang and you will have many hours of aggravation. The map itself is a 64 by 64 grid. This gives you 4096 cells. A cell is how the position of units, buildings and all other map items are determined. The cells are numbered from 1 - 4096 starting in the upper left hand corner of the map. So row 1 starts with "1" and ends with "64", row 2 starts with "65" and ends with "128", etc. It is important to note that there is a one cell border that should be left blank, with no units. This is where air units arrive from and fly to (they don't really fly off the map). So the largest map would be like this:

[MAP]

Height =62 (two cells for the top & bottom border)

Width =62 (two cells for the right and left border)

X=1

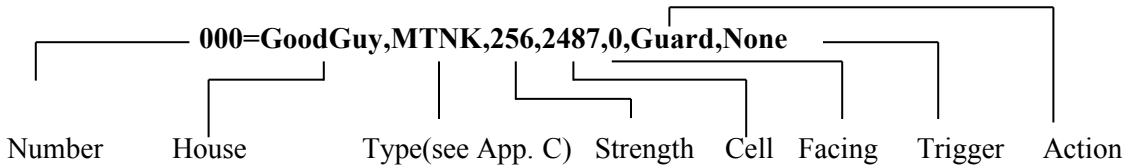
Y=1

[GoodGuy], [BadGuy], [Multi1-6],[Special],[Neutral]

Now we look at [GoodGuy], [BadGuy], [Multi1-6],[Special],[Neutral]. The sample INI file explains as much as is known. The important commands are the "Edge" and "Credits". The "Edge" command shows the area from where reinforcements arrive by air, sea or land. So you don't want to set the GoodGuy (GDI) and the BadGuy (NOD) to have their reinforcements arriving at the same "edge"! Normally they are set opposite each other. The "Credits" command shows the starting money for that player. It is calculated by multiplying the "Credits=" number times 100. So a "Credits=20" starts the player with 2000. The "Allies" command shows who won't attack you.

[UNITS]

The [UNITS] section deals with all of the military hardware that is on the map at the start of the mission. The unit should be placed with CCMAP, but can be adjusted when editing the INI file. The format of the unit is:



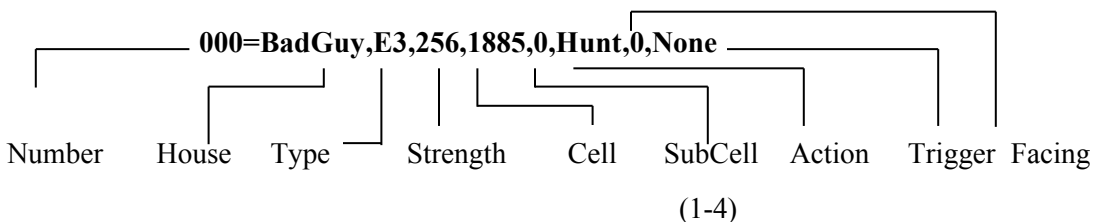
[Structure]

The format of the structure is the same as for the unit. Appendix E list the structures and a description of each. Appendix F is a list of the actions and the units.

Structures are placed on the map with CCMAP, but can be changed when editing the INI file. The most used changes are the strength or health and the trigger. If you wanted to start a building out as partially damaged, as in an abandoned base, it would take lots of left mouse clicks using CCMAP to reduce the default of 256. So, when you are editing the INI you can just change the 256 to 64 or whatever you decide. The command that controls direction (facing) is only useful with the turrets (GUN). The most common mistake when placing structures is to put a GoodGuy where you intended to put a BadGuy or vice-versa. You will find out real fast when you hear battle sound then, "Unit lost!" at the start of your mission. So it its good practice to double check and test play before you hand out missions. Enemy structures can be rebuilt (see BaseIT in the glossary). Trigger name are variable names you make up yourself, try to make them so they make sense for the trigger you are creating and keep them as short as you can.

[Infantry]

Infantry are the people and troops on the map of all houses (sides). There are a few special people which can be found in the Appendix D. The format of the [Infantry] is:



Note that you can have four troops in the same cell number but they each must have a different SubCell. See Appendix D for the types and actions of the [Infantry].

[Terrain] and [Overlay]

Terrain and Overlay are created when using CCMAP, normally you don't set the cells here, with one exception. That is WCRATE and SCRATE. These are the crates that give you credits or can be used as triggers to initiate an action.

[SMUDGE]

The [SMUDGE] section shows the location and type of craters and scorched earth. CCMAP will not create these so if you want to add them to your map you have to enter them when editing the INI file. The format is:

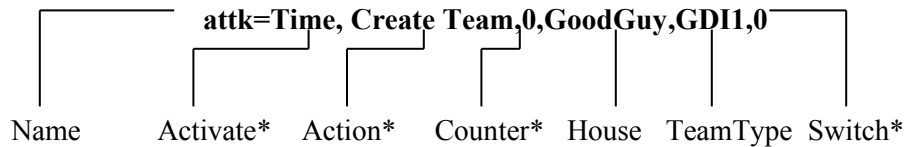
3214=SC6

Where the first entry is the cell number or location and the next is the type of crater or scorched earth. SC1 - SC6 are different type of scorch marks and CR1 - CR6 are different types of craters.

[Triggers]

The [Triggers] section and the [TeamTypes] section are the most complicated and most often sources of a bugs when editing the INI file. Refer to the hints and debugging section of this document. Triggers are variable names that are given to actions you want to occur at a specific time, or when another action has happened. For instance, after the NOD SAM sites have been eliminated, you may want your reinforcements to arrive by chopper; or at a certain time you might want the Noddies to drop a nuke on your base. This is all done using the [Triggers] and [TeamTypes] sections in coordination.

The format of the trigger is:



- * Activate This is what “pulls” the trigger, what is needed so the trigger will activate.
- * Action This is what happens when the trigger is “pulled”
- * Counter This counts time units (not seconds) that must pass, or a number of credits or buildings or units, etc. The time that passes is a function of the speed of your processor.

Debugging

I want to add few words on debugging your mission. Always make a backup of the original GENERAL.MIX and the last *working* INI file you had. Note the last change(s) made before you had the problem. Most of the problems that cause the system to hang are caused by the map file. If you have to, start over with a new map. The problems with the map file usually are caused by entering a cell number that is outside of the map's boundaries. This is usually done when editing the INI file not when using CCMAP. Change only *one* thing at a time. I know it's time consuming, but test your mission after each major change in the code. Most programmers or hackers do so because they enjoy solving problems. Use those problem solving skills. Look for the obvious, like misspelled commands, wrong values (too big or too small). The not so obvious are harder to detect - did you put the period after the command "Reinforce."?

Print it out if you can, then check each line of code. When you are happy that it is working, share it with all of us!

Appendix A

These are the cut scenes (videos) that you see at the beginning and en of your missions. Some of them are never seen in the original game.

The following list of parameters is used with the WIN, LOSE, INTRO, ACTION and BRIEF commands found in the [BASIC] section of the INI file. Note that some are on *both* the NOD and the GDI CD and some are on only one or the other. So, if you create a NOD mission don't try to use the video that is only on the GDI CD.

GDI or NOD CD	NAME	DESCRIPTION of VIDEO	
	N	AIRSTRK	Soldiers watching airstrike in hills.
	N	AKIRA	Nod base attacked by GDI and destroyed by ion blast.
G	N	BANNER	GDI troops hanging banner on Greek temple.
G	N	BCANYON	Orca chopper flying through canyon.
G		BKGROUND	Information about GDI and Nod presence on world map.
G	N	BOMBAWAY	A10 planes bombing a base in a valley.
G	N	BOMBFLY	Command center being bombed by A10 planes.
G		BURDET1	Burdette reporting about destruction of village.
G		BURDET2	Short Burdette report.
G	N	CC2TEASE	C&C2 demo video.
G	N	CONSYARD	MCV changing into a construction yard.
	N	DEFLEES	GDI soldiers running away from Nod tanks in desert.
	N	DESKILL	GDI soldier kills Nod soldier in desert.

G		DESOLAT	Desolated village overgrown with Tiberium.
	N	DESSWEEP	Nod vehicles moving through desert.
G	N	DINO	Hovercraft moving through a swamp area with dinosaurs.
G	N	FLAG	APC enters Nod base through fence. GDI flag raised.
G		FLYY	APC being killed by chopper.
G	N	FORESTKL	GDI soldier kills Nod soldier in forest.
G	N	GAMEOVER	GDI troops leaving a base by transport plane.
G	N	GDI1	GDI briefing mission 1
G		GDI2	GDI briefing mission 2
G		GDI3	GDI briefing mission 3
G		GDI4A	GDI briefing mission 4A
G		GDI4B	GDI briefing mission 4B
G		GDI5	GDI briefing mission 5
G		GDI6	GDI briefing mission 6
G		GDI7	GDI briefing mission 7
G		GDI8A	GDI briefing mission 8A
G		GDI8B	GDI briefing mission 8B
G		GDI9	GDI briefing mission 9
G		GDI10	GDI briefing mission 10
G		GDI11	GDI briefing mission 11
G		GDI12	GDI briefing mission 12
G		GDI13	GDI briefing mission 13

Appendix A, cont.

GDI	or	NOD	NAME	DESCRIPTION of VIDEO
G			GDI14	GDI briefing mission 14
G			GDI15	GDI briefing mission 15
G			GDI3LOSE	Tank being blasted by chopper.
G			GDIEND1	TV news about final battle (won by superior tactics).
G			GDIEND2	TV news about final battle (won by ion cannon).
G			GDIFINA	Destruction of Temple (Kane killed by collapsing building).
G			GDIFINB	Destruction of temple (Kane killed by ion blast).
G			GDILOSE	Scorpion crashes through GDI wall.
G		N	GENERIC	Kane talks about strange animals.
G			GUNBOAT	Gunboat goes by a gun turret.
G			HELLVALY	A desert valley with Tiberium blossom trees.
		N	INSITES	Missile destroys plane
G		N	INTRO2	The introduction video (Clicking through TV channels).
		N	KANEPRE	More history about Tiberium.
G		N	LANDING.	Hovercrafts leaving LST & heading for the beach
G		N	LOGO	The Westwood logo.
G			NAPALM	A10 planes destroy a mobile HQ.
G			NITEJUMP	Commandos air dropping into NOD base.

G	N	NOD1	Nod briefing mission 1
	N	NOD2	Nod briefing mission 2
	N	NOD3	Nod briefing mission 3
	N	NOD4A	Nod briefing mission 4A
	N	NOD4B	Nod briefing mission 4B
	N	NOD5	Nod briefing mission 5
	N	NOD6	Nod briefing mission 6
	N	NOD7A	Nod briefing mission 7A
	N	NOD7B	Nod briefing mission 7B
	N	NOD8	Nod briefing mission 8
	N	NOD9	Nod briefing mission 9
	N	NOD10A	Nod briefing mission 10A
	N	NOD10B	Nod briefing mission 10B
	N	NOD11	Nod briefing mission 11
	N	NOD12	Nod briefing mission 12
	N	NOD13	Nod briefing mission 13
G	N	NOD1PRE	Nod logo on TV screen with interference.
	N	NODEND1	Paris attacked by ion blast.
	N	NODEND2	Washington attacked by ion blast.
	N	NODEND3	London attacked by ion blast.
	N	NODEND4	Berlin hit by attacked blast.
	N	NODFINAL	Netrunners dancing through the web of cyberspace...

Appendix A, cont.

GDI	or	NOD	NAME	DESCRIPTION of VIDEO
G			NODFLEES	Nod soldiers running away from GDI tanks in forest.
G		N	NODLOSE	Eagle swooping and catching a scorpion.
G			NODSWEEP	Nod vehicles moving through forest.
		N	NUKE	Nuclear missile launched from NOD Temple.
		N	OBEL	Humvee being destroyed by obelisk of light.
G			PARATROP	Paratroopers jumping from plane.
G			PINTLE	Helo being shot down by bazooka.
G			PLANECRA	Cargo plane crashing on airstrip.
G			PODIUM	Gen. Shepherd questioned by journalists.
		N	REFINT	Inside Tiberium refinery.
G		N	RETRO	Prisoner interrogated and killed in warehouse.
G			SABOTAGE	Time-bomb placed in building.
G			SAMDIE	SAM site destroyed by grenades.
G		N	SAMSITE	SAM site firing missiles at plane.
		N	SETHPRE	Background inf. about Nod and Tiberium
G		N	SIEGE	A base under siege with enemy approaching from all sides.
		N	SPYCRASH	Plane crashing into mosque.
		N	STEALTH	Stealth tank attacking a base.
		N	SUNDIAL	Large sundial destroyed in a battle.
		N	TANKGO	Tanks moving through the desert.
		N	TANKKILL	Tank being destroyed by bazooka.
G			TBRINFO1	News items about current world situation.
G			TBRINFO2	More inf. about Tiberium.
G			TBRINFO3	More inf. about the dangers of Tiberium.

	N	TIBERFX	More inf. about the dangers of Tiberium.
	N	TRTKIL_D	Destruction of a gun turret in the desert.
G		TURTKILL	Destruction of a gun turret in forest.
G	N	VISOR	A10 planes heading for new target.

Appendix B

Reserved for future use

Appendix C [UNITS]

These are all the units you can play with.

APC	Armored personnel carrier, can be loaded with 5 infantry
ARTY	Self - propelled 105 mm howitzer (artillery)
BGGY	Dune buggy
BIKE	Recon bike (maybe an old Husqvarna??)
BOAT	River Gun boat
FTNK	Flame tank.
HARV	Harvester or Tiberium, and enemy muncher
HTNK	Heavy tank. M-1 or whatever your country's designation.
JEEP	Hummer's answer to the W.W.II Jeep
LST	Hovercraft (Landing Ship Tank or Transport)
LTNK	Light tank, sorta like a lite beer only smaller.
MCV	Mobile Construction Vehicle
MHQ	Mobile Headquarters, multiplayer games. Lose this and GAMEOVER!
MLRS	SSM
MSAM	Mobile rocket launcher

MTNK	Medium tank. Patton or whatever you wanna call it.
RAPT	Velociraptor
STEG	Stegosaurus
STNK	Stealth tank (not an abbreviation for STINK!)
TRAN	Chinook for reinforcements, can be loaded like an APC

Appendix C [UNITS], cont.

These are all the units you can play with.

TREX	Tyrannosaurus Rex
TRIC	Tricepteros
VICE	Viceroid (nothing to do with Miami)

These are the actions the units can take.

Area guard	More aggressive type of guard.
Attack base	Attack an enemy base
Attack Civil.	Attack civilians
Attack Tarcom	????
Defend Base	Defend your base
Guard	Won't attack until attacked by enemy.
Harvest	Harvesters command. Harvesters that are set to hunt will munch enemy.
None	Do nothing
Rampage	????
Retreat	????
Return	????
Sticky	Remain in assigned cell no matter what.

Unload

Unload a TRAN. Must specify waypoint or wp 27 is used.

Appendix D [Infantry]

E1	Mini-gunner
E2	Grenadier
E3	Bazooka
E4	Flame thrower
E5	Chemical troop
E6	Engineer
RMBO	Commando
C1	Civilian
C2	Civilian
C3	Civilian
C4	Civilian
C5	Civilian
C6	Civilian
C7	Civilian

C8	Civilian
C9	Civilian
C10	Civilian (Nikoomba)
MOBIUS	Dr. Mobius
DELPHI	Agent Delphi

Appendix D [Infantry], cont.

These are the actions that the infantry takes.

Area guard	More aggressive type of guard.
Attack base	Attack an enemy base
Attack Civil.	Attack civilians
Attack Tarcom	????
Defend Base	Defend your base
Guard	Won't attack until attacked by enemy.
Harvest	Harvesters command. Harvesters that are set to hunt will munch enemy.
Loop	Repeat the command using the counter specified.
None	Do nothing
Rampage	????
Retreat	????
Return	????
Sticky	Remain in assigned cell no matter what.

Appendix E [Structures]

The building and structures you get to use and abuse.

TMPL	Temple of NOD (needed for nuclear strike).
EYE	Advance Communications Center (needed for Ion Cannon)
WEAP	Weapons Factory
GTWR	Guard Tower
ATWR	Advanced Guard Tower
OBLE	Obelisk of Light
GUN	Turret
FACT	Construction Yard
PROC	Refinery
SILO	Silo
HPAD	Helipad (comes with helicopter NOD or GDI)
HQ	Communication Center.
SAM	SAM site (Surface to Air Missiles).
AFLD	Airfield
NUKE	Power Plant
NUK2	Advanced Power Plant
HOSP	Hospital.
BIO	Biotechnology Laboratory
PYLE	Barrack (after Ernie Pyle?).
HAND	Hand of NOD
ARCO	Mobile Home, can't occupy it.
FIX	Repair Bay
V01 - V37	Civilian buildings (someday I'll find which is which).

Appendix F [Triggers] and Actions

These are the things that have to happen to make the mission run, can't shoot a gun without a trigger!

Triggers

# Bldgs Destr.	When a number of structures are destroyed
# Units Destr.	When a number of units are destroyed
All Destr.	When everything on a side is destroyed
Any	Used with Cap=Win/Des=Lose
Attacked	If the thing is attacked.
Bldgs Destr.	If all of the buildings on one side are destroyed
Build it	If the specified structure was built
Civ. Evac.	When civilians have been evacuated
Credits	When the specified number of credits is reached
Destroyed	If the thing has been destroyed
Discovered	If the thing has been found
House Discov.	If the specified enemy is found
No Factories	When all construction yards are destroyed
None	No action is taken (default)
Player Enters	When a player enters a specified cell (Cell Trigger)
Time	When a certain number of ticks on the counter is reached
Units Destr.	All vehicles and infantry are destroyed

Appendix H [Triggers] and Actions, cont.

The following are actions taken when a trigger is activated.

Airstrike	Airstrike becomes available
All to Hunt	All the bad guys hunt for you
Allow Win	When more than on goal is needed to win
Autocreate	Creates a random team from TeamTypes list
Cap=Win/Des=Lose	Capture it you win; destroy it you lose
Create Team	Creates a team specified from TeamTypes list
Dstry Teams	????
Destry Trig 'XXXX'	Disables the trigger with name XXXX *
Destry Trig 'YYYY'	Disables the trigger with name YYYY *
Destry Trig 'ZZZZ'	Disables the trigger with name ZZZZ *
DZ at 'Z'	Lights the smoke flare at waypoint 25
Ion Cannon	Ion Cannon becomes available
Lose	Lose the game
None	No action taken (default)
Reinforce.	Reinforcements arrive by helo, APC or hovercraft
Win	Win the game
Nuclear Missile	Nukem Duke!
Production	Produces destroyed structures

Note that the WIN, LOSE, and PRODUCTION are always used. If you don't put a WIN or a LOSE in the game's gonna run forever! Without PRODUCTION you can't rebuild structures automatically.

* You could attach this trigger to the TMPL. Then when the Temple of Nod is destroyed, no nuclear missile would be able to be launched.

Appendix G (Misc.)

Miscellaneous Definitions

BARB	Barbed wire
CYCL	Cyclone fence
SBAG	Sand bag
BRIK	Concrete wall
WOOD	Wooden fence
WCRATE	Wooden crate, contains cash.
SCRATE	Steel crate, use with a trigger to get nukes
TI1 - TI12	Tiberium 1 - 12 units per cell.

Note I will not list each map or terrain item since CCMAP takes care of all of that.

THANK YOU!

The following FAQs, manuals, and documents were of immense help in compiling this manual. I wish to thank the authors of CCMAP, MIXMAN and EDITINI for giving us the best tools available to do the job we must do. Westwood Studios® has made a great contribution to the strategy gaming world. I hope that this manual will be of some help to those who may use it. If there are any major errors that I may have made please e-mail me at **moondogi@msn.com**.

I will attempt to keep this manual updated and it can be found at the Temple of the Conqueror
<http://www.intertrade.it/users/rajan/cctemple.html>

The Command and Conquer® Maps	Vladan Bato Trieste, IT
GENERAL.MIX: Some Basic Editing Information	buggy@adam.com.au A. Griffin
How to Create Your Own Command and Conquer® Missions	Han Brunger NL
Untitled Document	Marcus@Commstat.demon.co.uk
Command & Conquer® Video Fragments	Hans Nelisse NL
CCMAP	Richard Heesbeen and Jeroen Ritmeijer
MIXMAN	Vladan Bato Trieste, IT
EDITINI	Wayne M. McGee & The Fan
CC-Tools	Barry & Michiel
BaseIt	

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