

3.x Patch Project for: *Close Combat 2: A Bridge Too Far*

Current patch version: 3.4 ~ Date: November, 2006 ~ README by: Homba

The .doc (Microsoft Word) README and the .rtf (rich text format) README are identical in content.

INSTALL NOTE: If you are installing or re-installing CC2, you must FIRST do a FULL INSTALL of CC2, add the 2.0b patch, then add the 3.4 patch. After CC2 full install, you must install Microsoft's 2.0b patch.* LASTLY install the 3.4 patch. If you already have CC2 and 2.0b installed (or a previous 3.x patch, such as 3.3, installed), you can install 3.4 right on top - it will overwrite the previous 3.x patch. If you have any questions or problems with install, please ask in the CC2 main forum at:

<http://www.tournamenthouse.com/forum/index.php>

*Note that in later printings of the CC2 CD, 2.0b was included automatically, and does not have to be installed separately. We advise that you download & install the 2.0b patch from TogashiD's website, just to make sure.

You can download the 2.0b patch and 3.4 patch from TogashiD's Ammo Dump CC2 site:

Downloads | CC2 | Patches. http://63.166.183.248/cc2/The_Ammo_Dump.htm

The 3.4 patch is available in both an AUTOINSTALLER version, and a PLUGIN version (utilizing the CC2 Plug-in Manager).

Included in this README*

- I. title, install, contents, and Special Note regarding Grand Campaigns
- II. 3.4 changes
- III. 3.3 changes
- IV. 3.2 changes
- V. 3.1S (smoke effects) changes
- VI. 3.0/3.1 changes

*If you want to review the chronology of all 3.x changes, read this README starting with the 3.0/3.1 changes at the bottom, and work your way up to the top. The goal of the 3.x patch series is to improve CC2 for single-battle ("BM" – battlemaker scenario) games, by fixing errors and improving realism if possible, but without radical change that would alter the feel or fun of the original CC2. If a unit is impractical for single-battle play due to price or errors, an effort is made to rehabilitate that unit in order to provide more strategic depth to the game. 3.x is a work in progress - an ongoing CC2 community project based at TournamentHouse.

SPECIAL NOTE: 3.x patch in Grand Campaign?

A Note on using the 3.x patch in Grand Campaigns ('GCs'): Campaigning is a rich part of the CC2 experience. 3.x, however, is a "ladder patch," developed with single-battle ladder matches in mind, though consideration is given to effect of changes on Campaigns. Due to possible game balance issues, consideration should be given to the use of the original 2.0b patch in Grand Campaigns. If your Campaign opponent requests the use of the 2.0b patch, the 3.x patch designers highly recommend you grant your opponent's request and use the original 2.0b patch for the Campaign. Further note: Feb.28, 2005 - all 3 PZLeader-JihadX grand campaigns documented in the CC2 main forum in the past year were played using the 3.2 patch without any problems. Further note: March 2006 - PZLeader and Jihad have played 4 more GC's without problem. All players reporting GC results in the T-House forum have used the 3.2 patch without any problems. We expect no different results with the 3.3 and future patches.

Above all, make sure you and your opponent use the same patch version during the Campaign.

November, 2006: 3.3 has proved successful in documented GC's. We expect 3.4 will not cause any significant imbalances, especially on the popular 'Germans: Weak / Allies: Strong' setting.

3.4 patch (went live: November, 2006)

3.4 Credits: Thanks to everyone who contributed to the discussion. It was a community effort, with our time-honored "rule of minority veto" governing any suggested changes. See the **development thread** for the full 3.4 development discussion here:

<http://tournamenthouse.com/forum/viewtopic.php?t=8225>

3.4 Changes: 3.3 was the starting point. 3.4 includes everything in 3.3, plus the following listed changes.

All units name 'tags' changed from 3.3 to 3.4 - If you see this suffix to the unit names on the battlefield (support units now have these tags) when setting up your forces, you know the host is using the 3.4 patch. 3.4 will control the game, regardless of what patch the guest uses. HOWEVER, you need to have the 3.4 patch installed yourself, as guest, in order to get the benefit of the PRICE CHANGES for units on the requisition screen. Host's patch does not control the guest's requisition screen. Bottom line is, if you play someone with 3.4 installed, YOU need to have 3.4 installed as well, or you will not have the 3.4 price adjustments.

1) Sherman105 105mm Heavy Assault Gun & **StuH42** 105mm Heavy Assault Gun:

- reduce price for each from 30 to 25. (teams: value)
- improve reload speed for each from 200 to 160 (twice the base reload of other tanks) (wpns: chamber & clip to 160)
- increase HE shells for each from 30 to 35 (vehicles: Turret Guns).
- increase StuH42 mg ammo from 500 to 2000 rounds (Turret Gun Ammo (2nd) AP 2 to 8), HEAT shells from 3 to 5 (to mirror already upgraded Sherm105).

2) Achillies II -- reduce price from 30 to 28.

3) KingTiger -- increase HE shells from 15 to 25 (Vehicles: PzVIB: Turrent Gun Ammo 1st: HE).

4) SS Jagdpanther -- reduce price from 50 to 45.

5) Tiger I -- reduce price from 45 to 40

6) SS Panther -- reduce price from 43 to 40

7) Panther -- reduce price from 40 to 38

8) SS Mark IV -- reduce price from 28 to 27

9) Mark III -- increase price from 18 to 20.

10) Marder III -- reduce price from 20 to 14

11) 234 Armored Car (costs 12pts) -- increase MG ammo from 1000 to 2000 (Turret Gun Ammo (2nd) AP 4 to 8).

12) Bren (Brit, AB Brit & Pol)

- increase ammo by 50%. Decrease clip weight so as to maintain constant total weight pre- and post- change.

- In (soldiers), increase Crewed Wpn AP (for both BR and POL versions) from 8 to 12

- In (weapons), reduce BREN clip weight from 4 to 3.

13) FG42 -- tweak stats lower to make equivalent to AssaultMG42.

From 2.0b through 3.3, the FJ's FG42 had higher Kill Ratings than the MG42 or AssaultMG42. This is particularly odd considering that in 3.3 we were attempting to model the FG42 as using bursts of semi-automatic fire. The standard MG42 has a larger Point Blank range 30m, rather than 20m (which is appropriate for the more specialized MGs), but otherwise range categories are the same for the FG42, MG42 and the Sturms' Assault MG42.

Here are the 3.3 stats: (Range/killrating)

FG42:----PB:20m/20kr Close:100m/16kr Med:300m/6kr Long:1000m/3kr
MG42:---PB:30m/16kr Close:100m/11kr Med:300m/6kr Long:1000m/3kr
AsltMG:--PB:20m/16kr Close:100m/11kr Med:300m/6kr Long:1000m/3kr

The FG42 has the same stats in 2.0b. (But of course you could hardly use it because it was affected by the Constant Jam bug, which we fixed in 3.3). There is no justification whatsoever for the FG42 being superior.

To remedy this anomaly, we knocked down the FG42 to the same KillRating stats as the other 2 MGs.

Here are the 3.4 FG42 range/kr stats:

FG42:----PB:20m/16kr Close:100m/11kr Med:300m/6kr Long:1000m/3kr

14) Gammons: Some increase to gammon accuracy by adjusting range categories back to original 2.0b status – the range categories were compressed in 3.2/3.3, resulting in less accuracy.

3.3 Gammon, range categories were: Minimum:0, PointBlank:5, Close:10, Med:15, Long:25

2.0b Gammon, range categories were: Minimum:6, PointBlank:15, Close:20, Med:25, Long:30

[This information](http://users.stargate.net/~mccconmy/probability.htm) apparently confirms that the 2.0b gammon was rather significantly more accurate due to the more liberal 2.0b range categories. See: <http://users.stargate.net/~mccconmy/probability.htm>

We should return the gammon to its original accuracy, but preserve the minimum range of zero, which is simply realistic: you could toss a gammon up onto the deck of the tank from right beside the tread, or from directly above, no need for a min. range.

The 3.4 gammon range stats: Minimum: 0m, Point Blank: 15m, Close: 20m, Med: 25m, Long: 30m

As noted in the past, rarely (IF EVER) is any incarnation of the gammon thrown at a tank from greater than about 15-20m. Do not expect your troops to throw if outside 20m.

15) Polish Mortar. (Change cost from 8 to 9)

After playing with the 8pt polish mortars in 3.3, they seem TOO cheap. They have become almost the automatic pick whenever points are even slightly at issue (low or mid point BM), and seem to experience few problems due to their theoretically low exp/morale. Players have been using them exclusively, and it was therefore proposed to raise them to 9 pts, same as the US 81mm mortar. Compare the two units:

US 81mm-----3men-----3 base exp/morale----Carbine (no grenades) -- 9pts
Polish AB 3inch--4men-----2 base exp/morale---Rifle&2HEnades*----- ? pts

On the theory that the Polish additional man and 8 total HE grenades offset the one higher base exp/morale of the US, it was agreed to increase the cost of the Polish mortar to 9 pts for 3.4. (*starting tube-man has no hand grenades)

16) Polish AB Rifle (reduce cost: 9 to 8) and Polish AB Bren (reduce cost: 10 to 8): These prices are more accurate.

17) Some purely cosmetic textual changes were made to the (teams) file, columns 'Team Name,' 'Type Name,' and 'Full Name,' in order to more accurately describe units and shorten names to fit into the text windows in the soldier monitor. Some other changes include showing the number of Pzfausts in each german team equipped with them, same for gammons for AB Brits and number of Rifle Grenades present in Polish Teams (only). Also for example the Vickers was changed in Type Name from Hvy MG, to Md. MG. (The .50cal is the only designated allied Heavy MG.)

(END 3.4)

3.3 patch (went live: March, 2006)

3.3 Credits: Thanks to EVERYONE who worked, researched, suggested, analyzed, tested, opined, and offered the benefit of their experience. Special thanks to TogashiD for editing the files and hosting the patch. See the **development thread** for the full 3.3 development discussion and players who participated, here:

<http://www.tournamenthouse.com/forum/viewtopic.php?t=7919>

3.3 Changes: 3.2 was the starting point. 3.3 includes everything in 3.2, plus the following listed items.

All infantry 'tags' changed from 3.2 to 3.3 - If you see this suffix to the *infantry* unit names on the battlefield (*support* units do not have these tags) when setting up your forces, you know the host is using the 3.3 patch. 3.3 will control the game, regardless of what patch the guest uses. HOWEVER, you need to have the 3.3 patch installed yourself, as guest, in order to get the benefit of the PRICE CHANGES for units on the requisition screen. Host's patch does not control the guest's requisition screen. Bottom line is, if you play someone with 3.3 installed, YOU need to have 3.3 installed as well, or you will not have the 3.3 price adjustments.

1) Gammon base accuracy restored

The AB Brit's gammon bomb changed from 350 to the original 400 base accuracy. The reduction to 350 in 3.2 produced too many misses even in ideal ambush situations. {{wpns} base acc}

2) BAR & FG42 fixes

BAR & FG42: Jam fix, and distinct weapon graphic added. BAR & FG42 weapon type LtMG (type 13) to MG (type 7) for MG graphic and jam/break fix. (Thanks to Bruce Rolston the Real Para Mod creator, who documented this fix.) These weapons jammed constantly before this fix. With the new graphic, you can more easily see where the rifleman is among the squad - it appears as a longer gun, like any MG. {{wpns} type}

3) FG42 weapon adjustments {wpns} & {soldiers}

To approximate short rapid bursts of semi-auto fire, the preferred firing mode for this powerful assault rifle. (Thanks, BoroXXX)

- a) Reload Chamber: 2 to 3. {wpns}
- b) Time to Fire: 3 to 4. {wpns}
- c) Rounds/burst: 4 to 3. {wps}
- d) Change sound to 24 (flak88 - approximating the crack of a supersonic bullet flying past your head). {wpns}
- e) Remove HE grenades from soldier, equip with 2 smoke. (Avoids throwing grenades at charging infantry when using FG42 would be preferred) {soldiers}
- f) Change soldier's clips from 13 to 9. (Your ammo will actually last a bit longer now, but approx. same number of bursts as in 2.0b&3.2). {soldiers}

4) FJ Sturm: FG42 given to Leader, Leader's StG44 given to team member

This prevents the FG42 from being assigned to a soldier who is also a crewman for (assists with, and capable of picking up) the team's AssaultMG42. Giving the FG42 to

the leader is the only way to assure it will not be assigned to an AssaultMG42 crewman. (The team Leader will still pick up the AssaultMG42 if all its crew are dead.) {(teams) soldier list}

5) All Sturm teams: AssaultMG42 'crew' reduced from 4 to 3 men

Thus one more man is able to use his normal weapon consistently, instead of assisting with the AssaultMG42. The crew (and the team leader if all crew are dead) will pick up and use the MG if the current holder dies. {(teams) soldier type}

6) SS Sturm: Price adjustment 14 to 13 pts

The SS Sturm are the only 5 bar base exp/morale Sturm team. The Heer (Regular) and FJ Sturms are both 4 bar base. In 3.2 prices for all Sturm teams were dropped to 12/14/14. The FJ Sturm, in addition to its AssaultMG42, will now have the nice (repaired) FG42, which marginally outweighs the SS Sturm's higher base exp/morale (which is no guarantee they will in fact have higher exp/morale). So the SS Sturm is reduced from 14 to 13 points. The FJ will remain at 14, and the Regular will remain at 12. {(teams) value}

7) All German Snipers ammo increased

G Snipers: add 2 clips (for 6 total clips) {(soldiers) primary wpn: AP), fixed clips from 8 to 10 rounds {(wpns) rnds/clip}. G sniper ammo has always been inexplicably low. This increase remedies that. (Thanks, Boro)

8) Bazooka reload rate sped up by 15%

Bazooka (only) reload rate 15% faster (200 --> 170) {(wpns) reload time: chamber & clip). See development thread for reasoning. (Thanks all for discussion and compromise).

9) PIAT range increases

PIAT: +10m range (max = 70m). PIAT SMOKE ranges increase to: 10/30/50/90. {wpns}

10) PIAT side-arms

AB BRIT PIAT: the piat-bearer's pistol is replaced with a Sten SMG & 2HE grenades & 1smoke grenade. {soldiers} (Thanks, upas)

REG BRIT PIAT and POLISH PIAT: the piat-bearer's pistol is replaced with a rifle&2HEgrenades. {soldiers} (Thanks, Luft_Karabiner)

11) AB BR & BR flamethrower "special grenade" removed

Removed AB BR & BR flamethrower's 'special grenade' so it will no longer interfere with flamethrower operation. {wpns} (Thanks, CB_Recon)

12) AB Brit Rifle: price adjustment: 7 to 8

Costing only 7 pts with its 4 gammons and 10 HE grenades, this 4 bar base morale/exp unit was too much of a bargain relative to other allied teams. It will remain a popular choice at 8 pts. {(teams) value}

13) Allied Mortar Teams: price fix

Reasoning: Getting rational about mortars, here is the layout in 3.2, and probably what it 'should be' in 3.3 based on a ranking of the various mortar teams' strengths. The Sten SMG is a superior weapon to the Carbine because of higher Kill Rating. Critically, each Sten guy has 2 HE grenades & 1 smoke, while Carbine guys only have 2 smoke. 4 men is a more survivable team than the 3 man team. EXP/morale speaks for itself. The 2.0b mortar values (that were still used in 3.2) don't really make sense, and make the BR AB far and away the best option and virtually automatic pick. These price adjustments value each mortar team according to their capabilities and make them all reasonable picks.

MORTAR TEAM	#men	Exp/morale	side-arm	2.0b-3.2 cost	3.3 cost
AB Brit 3inch	4	4 base	Sten&2HE*	10	11
Brit 3inch	4	3 base	Sten&2HE*	10	10
AB US 81mm	3	4 base	Carbine	12	10
US 81mm	3	3 base	Carbine	11	9
Polish AB 3inch	4	2 base	Rifle&2HE*	9	8 (9 in 3.4)
AB US 60mm	3	4 base	Carbine	8	8
US 60mm	3	3 base	Carbine	8	7

60mm mort round is weak, though it has more ammo. Mildly effective outdoors. Not effective on buildings.

The Polish mortar has to be left at the cheapest and worst base morale/exp (2). They apparently did not have much practice time with their mortars. But they're the cheapest, and they do have 2 HE hand grenades each. So if you want to go cheap, you can do that. All the mortar prices are now priced appropriately relative to each other, instead of having the AB Brit 3inch being the AUTOMATIC pick, and all other mortars obsolete and unused due to overpricing. {(teams) value}

*In the two Brit teams, the starting mortar tube man has always had a Lee Enfield rifle, and no hand grenades. The Polish starting mortar tube man has always had a Lee Enfield, but no hand grenades. We retain these unit compositions.

14) German Mortar Teams: price adjustment

FJ and SS mortar teams reduced from 12 to 11. {(teams) value}

Regular Army mortar team reduced from 11 to 10. {(teams) value}

See development thread for reasoning.

15) German infantry flamethrowers: price adjustment

FJ and SS flamethrower men reduced from 14 to 13. {(teams) value}

Regular flamethrower men reduced from 12 to 11. {(teams) value}

See development thread for reasoning.

16) SchweresMG42: price fix

From 2.0b to 3.2, the Schwere teams have been priced at 13/14/15, and cost too much to be a wise choice - even more so because they are a 'support' unit. In 3.3 they have been reduced to 11(Reg) / 12 (FJ) /13 (SS) to make them a more reasonable unit choice. {(teams) value}

17) Polish Airborne: rehabilitated

The Polish forces were never willingly chosen in competitive games due to being overpriced and underpowered. Though liberally equipped with Rifle Grenades (RG's) by Atomic, the RG's could not be fired out of buildings and had a pitiful punch (kill rating of only 4 - normal grenade kill rating 15!). The Polish forces have now been restructured and the Rifle Grenades rehabilitated, making the Polish a legitimate choice among their allied peers. More on the Rifle Grenades in item 18, below.

Here is the new Polish force structure:

Polish Team	Cost	Notes
AB Sniper	2	Bumped up to base 5exp/morale.
AB PIAT	2	Each man will have a rifle&2HE grenades, but no RGs.
AB Ad Hoc	3	Team leader has 3 RGs. (3 total men, 6 total HE hand grenades)
AB Recon	4	No changes. Each man: Sten, 2 HE grenades, 1 smoke grenade.
AB Rifle	9	3 riflemen have 3 RGs each. Leader has Sten. 8 total HE grenades.
AB Bren	10	The 2 riflemen now have 3 RGs each.*
AB Vickers	8	Team leader has 3 RGs.
AB 3" Mortar	8	No RGs. But each man has a rifle & 2 HE grenades.

*The Bren assistant (there is one Bren assistant - the other guy with a rifle&RGs is not a designated crewman/assistant) will not fire his RGs when actively assisting with the crewed weapon, making the use of these RGs very unpredictable.

18) Rifle Grenades fixed, and who has them?

The Rifle Grenade has been made into a separate weapon. Converted the 90mm gun slot (which is unused). The 90mm gun graphic appears on the soldier monitor when the RG is in use. This graphic icon can be changed, but this graphic change will not appear until the next patch is released. On the battlefield, the man points his rifle and fires, and the 90mm gun sound is used, it makes a deep pop noise which is often noticeable. There is no special associated graphic effect on the battlefield – however in the soldier monitor, you will see the 90mm gun graphic (this does not mean a 90mm gun is in use, we just haven't fixed that graphic – eventually we plan to do so). Minimum range is 10m, max range is 80m. Blast characteristics are exactly the same as a hand grenade. Base accuracy is 375, lower than the normal rifle accuracy of 400. Misses at longer ranges will occur with some frequency. Only mildly effective against troops in buildings, since the protection rating of the building absorbs the damage - unless you get lucky with a direct hit. Significant effect against troops in the open or woods, just as you'd expect from a hand grenade, provided you hit (a miss can become a greater miss at longer ranges, unlike a thrown grenade which has less ground to cover and therefore less time

to divert from its desired course when accuracy is off). Can be fired against tanks, but virtually impossible to damage a tank from ground level. Only top shots have a moderate chance to kill, same as a thrown grenade. But like a thrown grenade, you have done a minor miracle to kill a tank with one, unless it's a perfect ambush. Only lighter German tanks will be vulnerable (MkIII, StuG, Hetzer, MkIV), same as thrown grenade. Reload is base 80. Time to fire is 20, due to the need to brace up for the monstrous kick. Due to the kick and aiming considerations, RGs cannot be fired on the run. If within 80m of target, your men will start out firing the RGs until they are out, then fire rifles.

Here is the stat line {wpns}:

Nation: Any
Class: 28
Type: 1 (Rifle - for proper soldier animation when firing)
Primary Target: 0
Valid Targets: 6
Reload Chamber: 80
Reload Clip: 80
Time to Fire: 20
Setup Time: 0
Rounds/clip: 1
Rounds/burst: 1
Weight: 0
Clip Weight: 2
Cool: 0
Heat: 0
No Jam/Break: 511
Assault Fire: 0
(From Bayonet to Canister): (all zero)
Blast Size (HE): 1
Blast Radius (HE): 8
Min Range: 10
Fire Direction (HE): 0 (direct)
Base Accuracy (HE): 375
Range PB (HE): 20
Range Close (HE): 40
Range Med. (HE): 60
Range Long (HE): 80
KR (HE): 15 at all ranges
Blast Rating (HE): PB 15/ CL 8/ MD 6/ LG 4
Sound: 25 (90mm gun, a deep pop sound – man appears to be firing his rifle, there is no special graphic)

HE ammo was removed for subject rifles. All other RG code for rifles (rifle grenade = 1, etc) was left as-is, since it no longer effects the RG, which is now a wholly different weapon.

Who has Rifle Grenades?

The Polish units indicated in item 17, above. Each Pole armed with RGs has 3 RGs, and also carries 2 HE hand grenades. All riflemen in the Rifle and Bren teams have RGs. In the Ad Hoc and Vickers team, the team leader has the RGs - the leader is the first/top guy on the soldier monitor.

All Schutzen teams (Reg, FJ and SS) have always had one man with RG's. You can identify this man because he starts with 60 rounds for his rifle instead of 90. He has no hand grenades. He will have 2 RG's. No change in unit prices.

US Regular Rifle, US Reg. BAR, US Reg. Assault, and US AB Assault all have always had one RG man. You can identify this man because he starts with 96 rounds for his rifle instead of 128. This man has no hand grenades. He has 2 RG's. No change in unit prices (keep in mind the Regular Army US units have 1 less base morale/exp than their Airborne counterparts and are generally less reliable in combat).

No other units in the game have RGs. (Thanks to upas for pushing for more work on Rifle Grenades after two previous failed attempts.)

19) Polish Vickers: imbedded leader

The Polish Vickers team's first man is now designated a 'leader' (1) instead of a 'crew' (2). This allows him to fire his RGs and rifle, instead of constantly assisting with the Vickers. It is possible for him to get a green or yellow 'leader circle' if the team is picked first or second when you requisition your teams, or if you get lucky. The leader will pick up and use the Vickers if the other two crewmen are killed (which may or may not prevent him from using his RGs if he has not already used them). {teams}

20) Elite Snipers: 'leader' designation

It was just discovered that the BR AB and Polish Sniper were (from 2.0b to 3.2) designated 'leaders' while the US AB was not. This made the BR AB the superior sniper for the 2 pt cost at the time, due to the Polish sniper being only 4 bar base. In an effort to rehabilitate all snipers to allow the player to freely pick the sniper nationality of his choice, the Polish sniper is raised to 5 bar base (see item 17 above), and the US AB Sniper is designated a 'leader.' For consistency, the FJ and SS Snipers are also being designated 'leaders'. The Regular US, Regular Brit and Regular German snipers are being left at 4 bar base and 'soldier' (not 'leader') status. If an elite ('leader') sniper is picked first or second (or if luck strikes) when requisitioning teams, the sniper will get a green or yellow 'leader circle.' {teams}

21) All ad hoc teams given imbedded 'leader'

The US and AB US ad hoc teams previously (from 2.0b to 3.2) had designated team 'leaders,' while the Brit, AB Brit and Polish ad hoc teams did not. To enable a definite Polish ad hoc man to carry the RGs (instead of it being randomly determined and unknown to the player), we designated a team 'leader' who will carry the 3 RGs in the Polish ad hoc. For consistency's sake, the BR and AB BR ad hocs also had the lead man designated a 'leader.' If an ad hoc team is picked first or second (or if luck strikes) when requisitioning teams, the leader will get a green or yellow 'leader circle.' {teams}

(END 3.3)

3.2 patch (went live: Jan. 2004)

3.2 Credits: Thanks to BoroXXX for suggestion of reduced price for Halftrack Flamer, and TogashiD for expert work in redesigning the unit. Thanks to CC2 co-creator Eric Young for his approving comments in the development thread at THforums.com. Special thanks to SevenX for conceiving and leading the original 3.0/3.1 project: the first concerted community attempt to upgrade CC2 for ladder play. Thanks to EVERYONE who worked, researched, suggested, analyzed, tested, contributed, and offered the benefit of their experience. See the development thread for the full 3.2 development discussion and players who participated, here:

<http://www.tournamenthouse.com/forum/viewtopic.php?t=5159>

Fixes and improvements: 3.1S was starting point. 3.2 includes everything in 3.1S, plus the following listed items.

All infantry 'tags' changed from **3.1S** to **3.2** - If you see this suffix to the *infantry* unit names on the battlefield when setting up your forces, you know the host is using 3.2. 3.2 will control the game, regardless of what patch the guest uses. (Note: *support* units do not have 'tags'.) **HOWEVER**, you need to have the 3.2 patch installed yourself, as guest, in order to get the benefit of the PRICE CHANGES for units on the requisition screen. Host's patch does not control the guest's requisition screen. Bottom line is, if you play someone with 3.2 installed, **YOU** need to have 3.2 installed as well, or you will not get the chance to buy Sturms, G infantry flamers, and the FlamethrowerHT for the reduced 3.2 prices.

1) Sturmgrenadier price

FJ and SS Sturmgrenadier squads have been reduced in price from 16 to 14. The Regular Army Sturm has been reduced from 13 to 12. {(teams) value}

2) Sturmgrenadier Assault MG42

The Assault MG42 soldier in all Sturm squads has now been armed with the 'Assault MG42,' instead of the 'MG42.' Unlike the MG42, The Assault MG42 can be fired on the run, and takes no time to "set up." It has ten 75-round barrel clips, for a total of 750 rounds (same ammo load as always for Sturm MG42). Performance is practically identical to the MG42. Further, all Sturm teams have been enabled to transfer the weapon to a living squad member if the current user is killed. 4 members (including the initial man) of the 7-man Sturm squads have been designated 'crew' with the ability to pick up and use the gun if the user dies. See the development thread for the reasoning behind this.

{(teams) Sturm:: Soldier Type- Columns 1,2,3,4: 0 to 2. SS Sturm, FJ Sturm:: same.}

{(soldiers) Assault MG42:: Crewed Wpn: -1 to 35. AP ammo: 0 to 10. Primary Wpn: 9 to 43. AP ammo: 3 to 2. Secondary Wpn: 43 to -1. AP ammo: 2 to 0. Grenade Weapon: HE: 2 to 0.}

{(weapons) Aslt MG.42:: Type: 13 to 7 (enables crewed weapon). Rounds per Clip: 50 to 75. Clip Weight: 10 to 7.}

3) Gammon Bomb

Here is an account of the gammon's changes, starting with 2.0b, moving to 3.0/3.1, and finally 3.2:

2.0b - Gammon was effective outdoors. An 'indirect fire' weapon, the gammon attacked only the thin top armor of tanks. Its 80 Kill Rating was enough to defeat the approx. 15mm-25mm of top armor on a tank. If you hit, you killed the tank. But the gammon could not be thrown out of buildings. No 'indirect fire' weapon can be used inside buildings (mortars).

3.0/3.1 - To enable use from within buildings (a near-universal request among players), gammons switched to 'direct fire'. This enabled attacks from within 2-story or 3-story buildings to be successful against any german tank, due to the gammon hitting the top armor of the tank from above. However, from ground level (like a bazooka) the 'direct fire' gammon fired out directly against the front, side or rear armor, rather than lobbing onto the top armor as an 'indirect fire' weapon would. The front and side armor of tanks repels an 80 Kill Rating gammon much better than the top armor, because the front and side tank armor is much thicker, often much thicker than 80mm in the case of the front armor. Thus, while 3.0/3.1 enabled successful gammon attacks from 2 & 3 story buildings, ground level attacks had a *much* lower rate of success than in 2.0b. In 2.0b if you hit, you killed. In 3.0/3.1, a hit from ground level had to be *lucky* to result in a kill- the tanks mainly shrugged off the blast.

3.2 - Two goals: (1) Restore the 2.0b rate of success for ground level gammon attacks by simulating a top armor hit. (2) Keep the gammon a 'direct fire' weapon so that realistic attacks from inside buildings are still possible. --- Success was achieved for both goals, accomplished by raising gammon Kill Rating from 80 to 400, thereby maintaining the old 80-vs-TopArmor ratio as a new, 400-vs-FrontArmor ratio. We have thus *simulated* a top armor attack without actually attacking the top armor in the game-mechanics. We have restored "if you hit, you kill" in 3.2 for ground level attacks. Base Accuracy lowered to 350 (same as a regular grenade), for the sake of accuracy realism and to represent occasional mechanical failure of the gammon. Minimum range reduced from 6m to 0m and max range reduced from 30m to 25m for realism purposes. No matter what patch version used, gammons will rarely (if ever) be thrown at a range outside 15m. Extensive testing confirms this, and confirms return of the 3.2 gammon to 2.0b killing power in ground-level attacks.

As a final touch, changed the blast size (wpns) from 1 to 3, so it goes off like 2 pounds of C4 should. Big explosion, so you can tell it blew up. This effects only the graphic size, not the power of the blast.

{(weapons)}

2.0b values: Indirect Fire; Base Accuracy=400; Minimum Rng=6m, PB=15m, CL=20m MED=25m, Long=30m; Kill Rating=80 at all ranges.

3.1 values: Direct Fire; Base Accuracy=400; Minimum Rng=6m, PB=15m, CL=20m MED=25m, Long=30m; Kill Rating=80 at all ranges.

3.2 values: Direct Fire; Base Accuracy=350; Minimum Rng=0m, PB=5m, CL=10m MED=15m, Long=25m; Kill Rating=400 at all ranges. Blast Size changed from 1 to 3.

4) German infantry flamers

Raise G flamers from base 3/4 bar to 4 (reg) / 5 (SS/FJ) bar base experience and morale. This omission was an oversight in 3.1.

You will occasionally still get flamers with poor experience or morale. But statistically less often than before.

5) All infantry flamers

i.) Flamer range tweak

2.0b/3.1 stats for flamers are:

Minimum range=8m, Point Blank=6m, Close=10m, Med=20, Long=30

The only rationale for this bizarre stat line is that Atomic made a data-entry mistake, accidentally switching the point blank and minimum range entries. A minimum range of 6m would make perfect sense because the "blast radius" is 5m. Thus, 6m is the closest you can engage without risking killing yourself in the fireball. Goal is to change minimum range to a more realistic 6m, and implement the stats Atomic probably meant to give the weapon in the first place.

3.2 stats:

Minimum range=6m, Point Blank=8m, Close=10m, Med=20, Long=30

Result: Flamers will fire as close in as 6m, unless the terrain or situation is such (known only to the little soldier himself) that he would kill himself (or at least, he THINKS he would kill himself). In that case, when trying to target at 6m or 7m range, he will say 'out of range' and you'll see 'friend block' (yourself!) on the soldier monitor. Other times, he will fire at 6m or 7m range. Never in testing at 6m & 7m did the fireball kill the flamer, no matter how close the fireball exploded to him. Tests proved the ability to kill charging enemy infantry at the 6m and 7m range. So the changes work out very well.

{{weapons}}

ii.) 'Leader' status for elite flamers

Switch the US AB, Brit AB, SS, and FJ flamers from 'crew' (designation '2') to 'leader' (designation '1'). This should improve the stats, including morale/experience of elite flamers. Though you see 'leader' in the soldier monitor in 2.0-3.1S, they are not actually designated 'leaders'. They carry the '2' designation for 'crew'. You will still sometimes see low morale or low experience men. But statistically less often. {{teams}}

iii.) 'Soldier' status for regular flamers

Switch the Brit Army and German Army flamer from 'crew' ('2') to 'basic soldier' (G.I./Soldat '0' designation). There is no need for them to be 'crew', because the flamer is not a crewed weapon that is passed around to survivors like a mortar or MG42.

{{teams}}

6) PIAT range tweak

In order to bring the piat in line with 3.1 standards for inf AT weapons, Min range reduced from 8m to 5m, and close range extended from 25m to 30m.

Ranges are now: 5m=min 10m=PB 30m=Close 45m=Med 60m=Long. The PIAT was overlooked in the tweaks made in 3.1, when the same MinRange and CloseRange tweaks were made to other inf AT weapons (zook, faust, schreck). In the 3.2 development thread (URL above), you can find a snippet (from the 3.0 development thread) of the reasoning for the increase to 30m close range. It has to do with the game mechanics of ambushes in CC2 being sprung automatically at 30m range. Close range misses still happen regularly- the change is not noticeable during play. It may provide a slight statistical improvement. {(weapons)}

7) DEMOLITION CHARGE (all Sturm teams and all Assault Teams have one)

It is difficult to model this weapon in CC2 due to the sub-human intelligence of our little pixel soldiers in delicate situations, and their tendency to throw the DEMO into a mixed melee of friend and foe. In order to reduce the extraordinarily high rate of friendly fire kills per use of the DEMO, a fix was attempted in 3.1 by raising minimum range 1m (from 10m to 11m) and increasing Base Accuracy slightly (from 350 to 370). This did not cause a noticeable improvement in the friendly fire situation. 3.2 has made additional incremental changes in an effort to improve the situation:

Blast Radius reduced from 15m to 12m. Base Accuracy increased from 370 to 400. (Note: The maximum range remains 20m, as always.) {(weapons)}

8) 251/16 Flamethrower Halftrack (FTHT)

Historically in CC2, the German FTHT has been too expensive (at 30 points) to justify use in BM play (you could buy the more durable HetzerFlammenPanzer for the same price!) BoroXXX suggested a new look at the price for 3.2, and from that suggestion grew a total re-working of the badly coded FTHT, undertaken with great success by TogashiD.

The price is now 21 points.

```
{(teams) SDKfz 251/16:: Value: 30 to 21. Soldier List- Column 3: -1 to 28. Soldier Type- Column 3: -1 to 2.}
{(vehicles) SDKfz 251/16:: Hull Guns Type- 1st: -1 to 45. Fire Angle- 1st: 0 to 131. Ammo 1st: AP: 0 to 8.
Turret Guns- 1st: 45 to 78. 3rd: 78 to 45. Firing Angle- 1st: 197 to 15. 2nd: 15 to 240. 3rd: 240 to 131.
Ammo 1st: AP: 8 to 0. SP: 0 to 30. 2nd: SP: 20 to 30. 3rd: AP: 0 to 8. SP: 20 to 0. Passengers- Number
of Crew: 2 to 3.}
{(weapons) Medium FT:: Blast Radius: Spec: 8 to 7. Range- Minimum: Spec: 10 to 15. Close: Spec: 10 to
15. Med: Spec: 30 to 25. Long: Spec: 60 to 50. NoBreakOrJam: 450 --> 480.}
```

The FTHT is now the best historical model we can make so far as armament (armor may be looked at in the future). The Coaxial MG34 has a 'front arc' (131) fire arc, and 2000 rounds. The two 'medium' flamethrowers are fully operational in the back, and each fire in essentially a 160 degree arc on the left, or right. Both flamers cannot fire forward (or backward) at the same time. A slight turn adjustment by the driver is *assumed* when firing directly forward. Both flamers can never fire at the same target. Each flamer has 30 bursts (60 rounds at 2 rounds/burst). If one flame gunner is killed, the 4th crewman (a new addition in 3.2) will take his place at the flame gun. If another flame gunner is killed, you'll only be able to operate 1 of the 2 flamers. The flamer range is minimum=15m, (no point-blank range, set to 6) close=15m, medium=25m, long(max)=50m. It was necessary to extend minimum range from 10m to 15m and

reduce blast radius from 8m to 7m in order to avoid self-kills by the halftrack when targeting at very close range. A self-kill by the FTHT would result (about 25% of the time) in the game IMMEDIATELY booting/exiting to the desktop, totally shutting down CC2. This exiting problem was confirmed by both Homba and TogashiD. There is no apparent solution except to avoid the self-kill altogether. 15m minimum range (with 7m blast radius) assures no self-kills. This could be partially justified by saying the flame guns cannot depress any farther. In any case, 15m is still very close. It is better to have the unit this way, than to not have it at all. NoBreakOrJam for the flamethrowers increased from 450 to 480 to mimic the change to the HetzerFlamer and Croc main gun in 3.1. You can read the good research and discussion that went into the rehabilitation of the 251/16 FTHT in the 3.2 development thread (link above).

9) German regular reserve team (text fix on requisition screen)

We have always thought the german reserve teams were 2-bar base experience/morale. We were wrong. I recently noticed that in the data, they have been 1-bar since the beginning! The GRAPHIC on the req. screen is wrong. It should be 1-bar, but the 2-bar graphic was mistakenly used. This was confirmed by testing: If ANY unit (not just reserves) is switched to 1-bar in the data, it shows the 2-bar graphic on the req. screen. All the other settings work correctly (0-bar shows 0-bar, and 2, 3, 4, and 5-bar show the correct number of bars for base Morale/Experience. Only the 1-bar is broken: it shows the 2-bar graphic. We have always used average 1-bar reserves when we played, though we thought they were average 2-bar when we bought them. PLEASE NOTE that out on the BATTLEFIELD, the 1-bar graphic works correctly. It is only in the REQUISITION screen that it is broken. So you often see 1-bar average reserve units on the battlefield. (As usual with all units, you also see variation in average Morale/Experience on the battlefield once you have purchased the unit- they are not always 1-bar average).

A fix on this would take much trial and error and require more file downloads than a typical patch, so a fix is not being attempted at this time. Everyone knows the reserve are terrible, so this is more a point of interest than a revelation.

Just to serve as a notice, I have added a line of text on the requisition screen for the Reserve unit that says: **2bar=error. 1bar Mrl/Ex.** {(teams)}

(END 3.2)

3.1S patch (adds enhanced smoke effects to existing 3.1 patch)

This is the 3.1S development thread. (KEG's comments are gone because he changed his forum name to Bundy Rum. Sorry KEG, that was THforums fault.)

<http://tournamenthouse.com/forum/viewtopic.php?t=3374>

SFKEG2 (a.k.a Bundy Rum) & TogashiD made this project (3.1S) possible, with numerous contributions from the CC2 T-House Community. Thanks to SevenX for leading the original 3.0/3.1 patch project in years past.

3.1S smoke changes

All CC2 smoke weapons changed bigger Smoke Blast Size (see below).
(Only Smoke blast size is changed, increasing the size of the smoke effect. HE blast size is NOT changed. The weapons are no more effective against infantry. This is ONLY a smoke change.)

***Infantry unit 'tag' CHANGED from (3.1) tag to 3.1S**

CC2 smoke wpns---2.0b/3.1 Smoke Blast Size---new 3.1S Smoke Blast Size

(smoke)Grenade-----	1-----	4
Bazooka-----	1-----	4
60mm mortar-----	1-----	3
7.5cm L/48-----	2-----	4
75mm L/40-----	2-----	4
8.8cm Flak-----	2-----	5
81mm mortar-----	2-----	5
8cm mortar-----	2-----	5
8.8cm L/71-----	2-----	5
2cm L/55-----	0-----	2
7.5cm L/70-----	2-----	4
8.8cm L/56-----	2-----	5
76mm L/53-----	2-----	4
90mm L/50-----	2 (this weapon not present in CC2) --	5
105mm L/28-----	2-----	5
7.5cm L/12-----	2-----	4
Nahvtdgnwf-----	1-----	5*
Smk Mortar-----	1-----	5*
Smk Dschgr-----	1-----	5*
3 Inch Gun-----	2-----	4
10.5cm L/28-----	2-----	5
PIAT-----	1-----	3
6pdr-----	1-----	3
17pdr-----	2-----	5
3in. mortar-----	2-----	5
12.8cm L/55-----	2-----	5

*the various vehicle mounted smoke mortars are Blast Size 5, regardless of their actual barrel diameter. This represents that realistically if they are going to pop smoke, they would pop at least a few rounds, but in CC2, when they auto-pop a smoke round, it is always only one round, and it never does much good.

Being as big as possible would simulate multiple rounds, and might do some good. {Tests were conducted on raising Rounds Per Burst from 1 to 3, but all 3 smoke rounds were fired at the exact same spot on the ground, rather than spread around, thus there was no benefit to raising Rounds Per Burst.}

(END 3.1S)

3.0/3.1 patch

This is the final readme for the 3.1 patch. 3.0 was conceived by SevenX, who led the community on this patch project. After a few final tweaks, the 3.0 patch became the 3.1 patch. That is why references to 3.0/3.1 as one entity are common. A reference to 3.1 automatically incorporates 3.0. They were never really different entities.

This is the development thread:

<http://tournamenthouse.com/forum/viewtopic.php?t=901>

Homba's Annotated Change List for the 3.1 patch. (This is the final 3.1 README).

There are several versions of the fix list for 3.1, at least 3 that I know of. Two on SevenX's web page, and one in the patch readme. All have minor errors. I have repeated the one in the readme, and made my notes and corrections {in brackets}.

Close Combat: A Bridge Too Far -- 3.1 Patch

Patch changes:

1. Tiger frontal armor upped slightly. {(veh)115 to 125 (Panther is 138 in original and 3.1, but panther has sloped armor, which is factored into the value of 138.)}

2. Jam/Break on Croc and Hetz minimized. {(wpn)Big Flamers 450 to 480. Maximum no-jam-or-bread for any weapon appears to be 511.}

3a. Jam/Break fixed on BAR {(wpn)450 to 480}

3b. Jam/Break fixed on FG42 {(wpn)450 to 480}

{note: you will find that these weapons STILL jam on occasion. Just less often than before. Though the BAR seems to still jam quite often.}

4. BAR ammo upped {from 140} to 240rds. {(soldiers) AP clips 7 to 12; (wpns) clip reload time reduced from 10 sec to 5 sec (100 to 50)}

5. Bren ammo upped {from 196} to 224rds. {(soldiers) AP clips 7 to 8}
6. AB .30 cal ammo upped to 1,250rds. {(soldiers) AP clips 2 to 5}
7. Minimum ranges on all AT launchers {but not PIAT- still 8m min in 3.1} reduced {from 8m} to 5m. {(wpn) 8 to 5}
8. Zook, Shreck and Faust Close range of 15m {(wpn) should read 'Point Blank' range= 15m, not 'Close'. Extended from 10 to 15m.}
9. Zook, Shreck and Faust Medium range of 30m. {(wpn) should read 'Close range', not 'Medium'. This is same for original Schreck. Faust was 15. Zook was 25.}
10. Faust medium range 40m. {(wpn) was 25}
11. Gammon switched to direct fire. {(wpn)(FireDirection-HEAT) 1 to 0. Gammons can now be thrown from inside buildings. When they were set to indirect fire, they could not be.}
12. Germans now have 1 man flamers, 12,14 points. {(teams) was 20, 24}
Note, the regular G flamer is 3 bar, the elite (FJ/SS) is 4 bar. This mirrors the exp and moral of the german flamer teams in 2.0b, but differs from the allied equivalents, which are 4 bar (reg) and 5 bar (Airborne).
13. Demo Charge minimum range up 1m and accuracy upped slightly.{(wpn)10m to 11m min range & PB range; 350 to 370}
14. 105mm Has 30 HE rounds and 5 HEAT. {Brit Tank (veh)from 12HE, 3 HEAT (not zero HEAT, thanks mpastor)}
15. Text fixes on Daimler, M3A2 HT, M3A1 HT, and Flammenwerfer teams.{I ignored this}
16. Pol Bren upped {from 140} to 224 rounds.{(soldiers) AP clips 5 to 8}
17. At guns now fire small arms at infantry. {I didnt look closely enough to discover how this was done.}
{(soldiers) Ger gun crew secondary wpn: -1 to 43 (walther P.38)
BRIT gun crew secondary wpn: -1 to 61 (wembly)
POL gun crew secondary wpn: -1 to 61 (wembly)}

=====

Other 3.1 changes:

{Colt.45 long range raised from 20m to 30m}

{Walther P38 long range reduced from 40 to 30m}

{all exp/morale ratings were checked, and are unchanged from original CC2.}

***** You will know if patch is installed by a notation of (3.1) behind all infantry units on the battlefield (not support units). In a multiplayer game, if the host has 3.1 you will see this 3.1 tag. If the host does not have 3.1 patch, you will not see the 3.1 tag with the infantry units regardless of whether or not you have 3.1 installed. {I corrected this. The one in the readme speaks only of the sniper having a '3.0' tag and is less detailed.}

***** If the host has the patch installed, the guest will be governed by the patch, regardless of what version the guest has installed. The only exception is german flamer prices. The Guest MUST have the 3.1 patch installed in order to see the correct prices in his requisition screen. You cannot buy the G flamer for the cheap price no matter which configuration of host/guest 3.1/2.0 you have. To buy it for the cheap (12/14) price, both have to be using 3.1. That means if both host and guest are using 3.1, the guest can buy the german regular flamer for 12, and the elite (FJ/SS) flamers for 14. There is no problem with the flamer price if both players have 3.1 installed.

END 3.0/3.1

END README