Elite FAQ

Ian Bell Autumn 1999

1. Where can I get a copy of PC Elite?

Right Here. For recent hobbyist versions see links page.

2. What are you working on now?

I am working on a new computer game but i am keeping the details secret for the moment.

3. Who wrote what in the original Elite?

Elite Programing

Ian Bell	David Braben
Sun & planet plotting	Ship plotting
3D movement, ship rotations	Trading screens
Stars/Dust Particles,Explosions	Equip ship screen
Hyperspace effect, Weapon Effects	Navigational charts
Solar system maintainance	Galaxy generation
"Goat Soup" string	"Furry Felines" string
Scanner coding	Scanner concept
Graphics primitives	Sound effects
Enemy tactics, Docking, Missiles	Dial bars
Secret Missions,Trumbles	

Elite Ship Design

Ian Bell	David Braben
Adder, Anaconda, Asp, Boa, Boulder,Cobra I, Cougar,Fer-de-Lance,Gecko, Krait, Moray, Missile,Orbit shuttle, Tharglet, Transporter, Worm,Dodecahedral Station	Asteroid, Cobra III, Constrictor, Mamba, Python, Sidewinder, Thargoid, Viper,Coriolis Station

4. How many kills for each rating?

6502 kill thresholds (in hex):		Arc kill thresholds (in decimal):
BBC,C64,AppleII	**NES**	
0x0000 - Harmless 0x0008 - Mostly Harmless 0x0010 - Poor 0x0020 - Average 0x0040 - Above Average 0x0080 - Competent 0x0200 - Dangerous 0x0A00 - Deadly 0x1900 - Elite	0x0000 - Harmless 0x0002 - Mostly Harmless 0x0008 - Poor 0x0018 - Average 0x002C - Above Average 0x0082 - Competent 0x0200 - Dangerous 0x0A00 - Deadly 0x1900 - Elite	0000 - Harmless 0049 - Mostly Harmless 0401 - Poor 1009 - Average 1501 - Above Average 2501 - Competent 4501 - Dangerous 3000 - Deadly 8000 - Very Deadly 9801 - Elite
All ships constituted 1.0 kills in BBC Elite. In C64 Elite, a third ("fractional") byte was added to the kill total, and each ship had a seperate kill value one 7th that in the table below.		This data taken from Jades' FFE site.

C64 Elite Ship Specs							
Ship	Size	Energy	Speed	Max Missiles Carried	Max Loot	Bounty CR	NES Kill Value (Hex)
CORIOLIS STN	160	240	0	6m	0t	0.0	0.00
DODEC STATION	180	240	0	0m	0t	0.0	0.00
MISSILE	40	2	44	0m	0t	0.0	1.C0
THARGLET	40	20	30	0m	0t	5.0	0.64
Space Junk							
ESCAPE CAPSULE	16	17	8	0m	0t	0.0	0.32
PLATELET	10	16	16	0m	0t	0.0	0.20
CARGO CANNISTER	20	17	15	0m	0t	0.0	0.1F
BOULDER	30	20	30	0m	0t	0.1	0.14
ASTROID	80	60	30	0m	0t	0.5	0.19
ROCK SPLINTER	16	20	10	0m	0t	0.0	0.1E
SHUTTLE	50	32	8	0m	15t	0.0	0.32
TRANSPORTER	50	32	10	0m	0t	0.0	0.33
ROCK HERMIT	80	180	30	2m	7t	0.0	1.00
Police							
VIPER	75	140	32	1m	0t	0.0	0.50
Traders							
COBRA III	95	150	28	3m	3t	0.0	2.C0
PYTHON	80	250	20	3m	5t	0.0	2.00
BOA	70	250	24	4m	5t	0.0	2.80
ANACON	100	252	14	7m	7t	0.0	3.00
Pack Hunters							
SIDEWND	65	70	37	0m	0t	5.0	1.00
MAMBA	70	90	30	2m	1t	15.0	1.80
TIKRAIT	60	80	30	0m	1t	10.0	1.00
ADDER	50	85	24	0m	0t	4.0	1.10
GECKO	99	70	30	0m	0t	5.5	1.00
COBRA I	99	90	26	2m	3t	7.5	2.00
WORM	99	30	23	0m	0t	0.0	0.96
Lone Wolves							
COBRA III	95	150	28	2m	1t	17.5	3.80
ASP II	60	150	40	1m	0t	20.0	3.40
PYTHON	80	250	20	3m	2t	20.0	3.80
FER DE LANCE	40	160	30	2m	0t	0.0	3.C0
MORAY	30	100	25	0m	1t	5.0	2.40
THARGOID	99	240	39	6m	0t	50.0	8.00
CONSTRICTOR	65	252	36	4m	3t	0.0	10.00
COUGAR	70	252	40	4m	3t	0.0	10.00

5. Exactly where, when, and how are the missions triggered?

6502 Elite Secret Missions
- First Mission: Rating 0x0100 (competant twiceover). In Galaxy One or Two.
- Second Mission: Rating 0x0500 (half way to Deadly). First Mission completed. In Galaxy Three.
- Trumbles (C64,Apple II,NES): Cash > 6553.4CR.

MSX Elite Secret Missions
- First Mission: Score 170000
- Second Mission: Score 200000
- Third Mission: Score 2300000
- Fourth Mission: Score 2600000
- Fifth Mission: Score 2900000

6. How do I force a mis-jump/entry to "witch space"?

On 6502 versions, this is achieved by engaging maximum "climb" as the hyperspace countdown times out. On the BBC version, you may have to pause the game, press CTRL_X, and then resume to enable this.

7. How do I escape from "witch space"?

Mis-jumps take the ammount of fuel required for the intended jump. **If** the remaining fuel is adequate you can hyperspace again. This will always be possible if the intended jump was less than 3.5 LY on a full tank. If you don't have enough fuel for another jump, you are doomed unless you have an escape capsule which IIRC does still work (though strictly speaking it shoudn't).

8. How do you get rid of the Trumbles/Squeakies?

By sunskimming - **if** your Commander is ruthless enough.
The Trumbles mission was a somewhat prankful addition to the C64 version to add something new over the BBC version. The Trumbles Count is an ethics score (deciKirks) for the competant Commander . In hindsight, i should have decreased the breeding rate of unfed Trumbles so that maintaining a small population would not require quite so much cooking.

9. Why can't I get scooping up cargo cannisters to work?

You need to buy a fuel scoop. Ram the object keeping it in the lower half of the Front View display. There must be room in the cargo bay

10. How do I launch from space station when emulating BBC Elite?

BBC Elite used the f0 key for launch. Since PC keyboards lack F0, emulator programs have to mimic f0 with a different key. Try NUMPAD_0 and if that fails, consult the emulator docs for key assignments.

11. How do I save my position?

On the BBC and related versions, via the "@" key (under emulation this mey be a different key, consult emulator docs for key assignments).

12. Where are the Space Dredgers and Generation Ships?

Where indeed.

13. Why don't you and David Braben settle your differences and write a proper sequel?

David Braben developed (with some assistance from me) "Frontier: Elite 2",and then (with no assistance from me) the notorious "Frontier: First Encounters". I stated my opinions on his conduct regarding these titles in an interview for gamesdomain [Aug 1995].
I subsequently received a letter from Braben's solicitors objecting to three points in the interview including a statement the intended meaning of which was that I understood Chris Sawyer receieved no royalties on "Frontier:First Encounters" but which could be potentially misconstrued to imply that Braben had ceased paying Sawyer his royalties on sales of the PC version of "Frontier:Elite 2".
The letter demanded a "full apology" and "your proposal for compensation and/or exemplary damages".
I immediately requested Games Domain to add a clarification of the intended meaning of the Chris Sawyer remark to the interview. They promptly did so and it remained online till 2002.
Despite the clarification, Braben still attempted to sue me for libel (High Court of Justice Queens Bench, Writ 1995 -B No 2536, 24 Nov 1995). This is indicative of his post-Elite attitude.

14. Dum De Dum De Dum... Frontier:Elite 2 / Frontier First Encounters.

Those titles are not my responsibility. I cannot provide copies, patches, or assistance getting them to work. See Jades' FFE Page for help with those.

15. Will you send me the source code for Elite?

The BBC Cassette Elite 6502 sources are now available on this site.

16. How old were you when you wrote Elite?

See personal details.

17. What language was Elite written in?

As regards the original 6502 Elites, assembly language. Initially using the tremendously powerful BBC BASIC assembler.

18. Where can I get a copy of the manual for such-and-such a version?

These are hard to come by. I personally do not have any surplus.

19. What happened to the CIX site?

See David Braben's Legal Threat to the Elite Home Page.

20. Is there a Mac version?

Not officially. But see links page.

21. What Space-based SciFi do you like and which do you consider to be most like "Elite"?

"*Farscape*", which i enjoy, is the most in keeping with Elite as i perceive it. I quite liked "*Babylon 5*"'s political intrigues for a while but its way too broad-canvas for Elite. "*Blake's 7*" was fun in its day. "*ST:Voyager*" is only occasionally interesting but has very nice title graphics. "*ST:Next Generation*" is pretty lame most of the time. "*ST:DS9*" is bellyup dire. "*ST:Enterprise*" has only two good points, both to be found on the chest of the science officer.

22. How can I thank you for my childhood pleasure/the influence "Elite" had on my life?

You can consider making a <u>Paypal donation</u> or visit my <u>Amazon wish list</u>

23. What is the final Elite mission?

At an obscure Multi-Government/Coorporate State planet in the unfashionable end of the western spiral arm of Galaxy 23, Data_On_System reveals:
This fabulous hoopy planet is allowing pirates to destroy the biosphere. Your mission is protect the planet from the pirates.

Good Luck, Commander.

24. What is are the criteria/specifics of the missions in a specific version?

I did start collating mission specifics for each version, and you can find some such info on other sites, but i decided i risked killing the romance. These are, after all, **secret** missions in that they were originally intended to be a complete surprise to the player just as they were beginning to think they had seen all the game had to offer and rekindle their involvement. With regard to the conversions done by others, the brief was basically to do their own thing missionwise and have fun with it. I wanted converters to be creatively involved in their labours and apply their own slant to an open formula rather than impliment further missions of my own devising. Partly to manipulate them into doing a better job and so make me more money, of course, but for other nobler reasons too. The only thing more rewarding than personal creativity is facilitating the creativity of others.

The resultant lack of uniformity adds to the mythos and ruthless documentation would, i suggest, be a mistake. The "Long and Boring Waffle with Little Relief" on the "Princes of the Universe" site (see <u>links page</u> provides some of the best analysis of what Elite _EMPHASISE(is) (AFAIAC) that I am aware of.

So i'm *not* going to tell you the answer to your mission question even if i knew it, which i probably don't. You'll have to keep on trading and shooting, Commander. Or start hanging out in seedy space rangers' bars and learn to tell the veterans from the braggarts.

Elite frequently asked questions (Answers from David Braben)

1. Where can I buy Elite from?

Elite+ is still available new in Europe on the PC from Entertainment International under the "Empire" label for around £10-£15.

2. What platforms was Elite written for?

Elite was originally written for the BBC Micro. There was a separate version if your machine had the optional floppy disc drive, and these were both launched at the same time. The BBC disc version had the special missions in it, and more space craft, but we couldn't fit these in to the 22K available on the basic machine.

Here are the versions in full: BBC Micro (tape), BBC Micro (disc), Acorn Electron (tape), Acorn Electron (cartridge,unreleased), Commodore 64 (cassette,disc), Sinclair Spectrum, Amstrad CPC (tape, disc), MSX (tape), Tatung Einstein, Apple II, IBM CGA/8086 PC,Atari ST, Commodore Amiga, Sinclair 128, BBC Master 128, BBC Master Compact, BBC Tube, Nintendo Entertainment System, IBM EGA/VGA/80286 PC (as Elite +), NEC 9800 series (Japan only) and Acorn Archimedes. Many of these were available in foreign language versions, and there were a few other versions for variant machines like the Commodore 128, and a few other versions that weren't released.

3. What missions are in what versions of Elite?

Each version of Elite had a different set of missions to some extent. BBC Micro (tape) and Acorn Electron versions were the only ones that had no special missions. The BBC disc version did have the secret missions.

4. Who's idea was Elite?

Elite was very much a joint project that evolved during the period of putting it together. I had a 3D space game I was playing about with on the Acorn Atom, but it was very basic, consisting of a 3D starfield with very simple space ships. At this time Ian Bell was just completing a game of his own, "Free Fall" from Acornsoft, so it seemed logical for us to cooperate. It is often difficult to remember who had which idea. We both agreed that the game needed more than just 3D combat, and we played around with a number of possible options. I think it was Ian's idea to do trading, and I think it was me who thought up the slightly arrogant name "The Elite" - which later got shortened to just Elite. At the time the idea behind the game seemed quite obvious - we were pleasantly surprised that the game was still pretty unique when it was finally released.

5. How long did Elite take to write?

It took two of us a little over two years to write from start to finish, including many long hours into the night. There were many other people who were instrumental in bringing the game out and making it what it was. Particularly David Johnson-Davies (head of Acornsoft) made sure the game had enough time to be perfected and tested before setting a release date, and Rob Holdstock for the Manual and Novella "The Dark Wheel".

6. Why did you fall out with Ian Bell?

This is a thorny one! We started work on a game provisionally titled "Elite 2" on the 8 bit platforms in 1985, with a loose game design, and divided the work between the two of us (this was a very different game to what became Frontier). After about a year, when I came to need the results from work that Ian was supposed to have done by then it became apparent that Ian was no longer motivated to continuing with a sequel to Elite. Ian had become very interested in martial arts and this was taking most of his time. This "Elite 2" was then abandoned and I went off to do Zarch, and Ian went his own way.

After I had completed Virus in 1988, I was quite keen on doing a sequel to Elite on the 16 bit platforms. Ian was still not keen on spending the sort of time required and so we came to an amicable agreement to allow me to proceed with the sequel on my own. This agreement gave me exclusive rights to all sequels and mission discs, in return for royalties on the first sequel of Elite.

I then started development of Frontier on the new 16 bit platforms with a game more in the Elite vain (the aborted "Elite 2" put the player as a grunt in the space navy). It was not until the sequel to Frontier, First Encounters was announced some six years later that Ian expressed any unhappiness, and I think this was largely as a result of his (very substantial) income stream slowly drying up. There then followed a very sordid argument based around his claim that First Encounters was not up to being a full sequel, partly due to the botched release of First Encounters, which was the subject of a law suit (now settled for damages in my favour). To me, to some extent Ian's reaction was understandable (I was pretty angry too), but he made several key claims in public interviews, including the claim that I had not paid Chris Sawyer, when he knew I had. I asked Ian to withdraw this, he didn't, I sued him for libel, and then he retracted. I have not spoken to him since and vice-versa.

7. Is it legal to download Elite from the net?

Elite was written as joint copyright by Ian Bell and myself. I would like to make Elite available as shareware, but this requires permission of the other copyright holder. A third party has claimed that Ian Bell has sold his rights in Elite to them but Ian has not yet confirmed this. The end result is it is not legal, but I do not mind this as long as the copyright messages are intact, and it is not done for commercial gain, but be warned as the other copyright holder may object.

8. Why has the www.cix.co.uk/~ibell site disappeared?

I wanted to make the Elite binaries available as part of the possible forthcoming Elite Club and wanted to check the current status of the old Elite binaries. These were available on a site under the "Ian Bell" name, with CIX as the service provider. I did not know whether the ibell CIX account had not also been sold, possibly to a different person, so I asked CIX for the identity of the site holder, since the real Ian Bell had not responded to mail sent by surface post to his last known address. CIX needed the permission of the site holder to reveal their true identity so an enpasse existed for three months while the site holder did not respond to CIX's emails. Out of desperation, and after discussion with CIX, I thought that a threat to ask for the Elite files to be removed might prompt a response, and so CIX asked the account holder to remove the files. The site holder responded by posting a small number of purported emails from CIX to the site, which CIX told me were only a small part of a correspondence and as such these mails completely misrepresented what had actually been said. This also gave out the private email addresses of various CIX staff, and painted both CIX and myself in a very bad light. I understand it was this that caused removal of the entire ibell web space as it broke the terms and conditions of the account.

There was a long discussion thread about this on alt.fan.elite, culminating in articles appearing on a number of magazine websites, which were later withdrawn following speaking to myself and a representative of CIX, and I distributed a press release about this. This triggered a further thread.

9. Are there any generation ships in Elite?

No. This was put into the documentation as part of the richness that Rob Holdstock introduced, as were "Rock Hermits". However, we added "Rock Hermits" to later versions of Elite as a result, but the graphic system couldn't cope with ships that looked sufficiently big or impressive to act as generation ships.

10. Are there any cheats in Elite?

Yes. Most Elites have a way of forcing misjumps, so you can have a shooting match with Thargoids. This was CTRL-H on many versions. Some versions have specific additional cheats (like typing SARA on the early ST/Amiga versions), and if you create a commander called "CHEATER" on the Nintendo version then something special happens... but you then can't change the name back again.

11. Is Elite ever going to come out on the Playstation?

Probably not, because of the fall-out between Ian and I (see (6) above), but now it looks like he has sold his rights this may now be possible.

12. When is the Elite Club (discussed on alt.fan.elite) going to happen?

This is currently in the planning stage, but is compromised by the problem of the Elite images discussed in (8).

13. How come there are eight galaxies with thousands of planets in only 22K of memory?

The star systems in Elite were all generated pseudo-randomly. In explanation imagine a number sequence that looks random - like adding the last two numbers together, and only keeping the last two digits. You need to choose two numbers to start with, called the seed. Choosing 12 and 34 would give a sequence 12 34 46 80 26 06 32 38 70 08 ... for example. This particular method is known as a Fibbonachi sequence after the guy that first thought of it. There are better techniques, but the principle is the same. Such a sequence can then be used to give the planetary names, their coordinates, sizes, type of economy etc. with the software designed to rule out silly options. Hence the only storage is the "seed" - which for Elite was six bytes for each galaxy, but in the interests of saving memory (yes - six bytes was considered a lot) each galaxy used the same seed rotated by one (this is like dividing by two and copying the carry into the top binary digit).

(There were originally 2^{48} Galaxies (yes that's 280,000,000,000,000 odd galaxies) but David Johnson-Davies of Acornsoft rightly thought that was just plain silly!)

14. What are/who thought of/Why did you put in "Killer Edible Poets"/"Edible Arts Graduates" etc in the descriptions of each world?

They weren't put in as such. Those paragraphs were generated by pseudo-random (see 13) sentence construction rules. Amongst these rules were rules of the form < thing > = [< prefix >]< creature > and < creature >=[< adjective >] < animal >. It was Ian that added "Arts Graduate" (and "Poet") as a possible "animal", hence Killer Poet and Edible Arts Graduate were possible, but very unlikely.

Normally these pieces of text produced strings like This world is famous for the glorious pink volcanoes and killer mountain lions - it is these odd ones that make them memorable, though I admit I was not keen on adding "Poets" and "Arts Graduate" at the time. Possibly it's because I was dull and boring.

Incidentally, these paragraphs proved a nightmare in translation to German for example as unlike in English, you cannot simply string words together like this with factors like case and gender.

15. Which is your favourite version of Elite - which is the best?

I'm often asked this, and I suppose it depends on whether you allow for the time when each version was released. In my mind, the best version of Elite for the time had to be BBC Elite, or just possibly Commodore 64 Elite, as they shone out so strongly over their contemporaries. Otherwise, the best is probably NES Elite as it had extra fluff, like the pictures of each world, and the progression of your commander from rags to riches was quite amusing, and the icon system made it easier to play. I certainly have the fondest memories of BBC Elite.