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UFO: Alien Invasion - Manual [Rev. 0.2]

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March 17, 2011
UFO:AI Development-Team and contributing Community:
http://ufoai.sf.net/

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1 About

1.1 General

It is the year 2084. You control a secret organisation charged with defending Earth from a brutal alien enemy. You will need to build up your bases, prepare your team, and dive head-first into the fast and flowing turn-based combat.

UFO: ALIEN INVASION is a squad-based tactical strategy game in the tradition of the old X-COM PC games, but with a twist. Our game combines military realism with hard science-fiction and the weirdness of an alien invasion. The carefully constructed turn-based system gives you pin-point control of your squad while maintaining a sense of pace and danger.

Over the long term you will need to conduct research into the alien threat to figure out their mysterious goals and use their powerful weapons for your own ends. You will produce unique items and use them in combat against your enemies. If you like, you can even use them against your friends with our multiplayer functionality.

'UFO: Alien Invasion'. Endless hours of gameplay – absolutely free.

The game takes a lot of inspiration from the X-COM series by Mythos and Microprose. However, it's neither a sequel nor a remake of any X-COM or other commercial title. What we, as a team, wanted to make is a brand new experience that tries to surpass the quality of games from 1992, rather than to simply recreate them with flashier graphics.

We also believe that open-source projects don't need to be disorganised or badly-managed. We work together in a friendly and professional way, with a clear vision for a game that we know is worth playing.

1.2 Typographical and Other Conventions

Since this is a manual for computer software, I will use conventions from popular computer books to denote things like file paths and commands.

Boldface — interface elements such as buttons.
Italic — filenames, names of screens and modes.
`Fixed width` — chapter names within main body text.

Also, while we recognise that gamers come in all shapes, colours, sizes, and sexes, for brevity's sake, this manual will always use the male gender when discussing the players themselves or the soldiers. Women, please do not take this personally.

1.3 Gameplay

Like the original X-COM games, UFO:AI has two main modes of play: *Geoscape* mode and *Tactical* mode.

In *Geoscape* mode, the game is about base management and strategy. You manage the activities and finances of PHALANX, controlling bases, installations, aircraft and squads of armed-response troops. You'll research new technologies and use their results in battle against the aliens. You'll launch your interceptor aircraft to shoot down UFOs and dispatch dropships in response to alien activity across the globe. You can build, buy and produce anything you like, as long as your technology level and your budget will allow it.

Geoscape mode employs easy-to-use buttons to control the passage of time however you like. Gameplay will automatically pause whenever there is an important message for you to see. As

time passes, your research will progress and your workshops will produce items, all under your guidance.

In *Tactical* mode, the game is about taking command of your team during missions to combat the aliens. Instead of pushing impersonal armies around on giant maps, you use only the team of soldiers you've assigned to deal with this mission – the same soldiers you've managed and equipped in the *Geoscape*. You may find civilians and other bystanders during the mission, either being targeted and executed by the aliens or just getting in the way. It's a dangerous world, and some of your men will die.

Tactical mode uses a turn-based system, where your team and the aliens take turns to move. During your turn you can order your troops to move around, fire their weapons, throw grenades or use other equipment, etc. Each soldier gets a certain number of Time Units (TUs), representing the total time they have to act during the current turn. All actions in Tactical mode require TUs to perform. Once a soldier is out of TUs, he or she can't do anything more until the next turn.

Your mission objectives will vary for each mission, and there are many to perform as the aliens' terrifying plot unfolds. You'll have to watch your back, be quick on your feet, and take the fight to them.

If you cannot, humanity is doomed.

1.4 Game Engine

The game engine is based on a heavily modified version of ID's Quake2 Engine. This doesn't mean that 'UFO: Alien Invasion' is a modification or even a total conversion of Quake 2. It is a stand-alone game and doesn't require Quake 2 or any other program to run. All you need to play UFO:AI is a computer running Microsoft Windows, a supported version of Linux, or MacOS X, and an installer from our website.[1].

Our updated engine has modern OpenGL graphics and special effects, increased texture resolution, hardware-accelerated clipping of map layers for toggling between levels, a new animation system for player models, powerful artificial intelligence, and many other exciting features.

[1] http://ufoai.sf.net/

2 Free games / the community

2.1 Contribute

This game is brought to you by the UFO:AI Development team and its countless contributors. All of them share at least one thought: to make UFO:AI a great free game. Besides detailed legal implications, mentioned in the following section and given in the appendix, most of all this means that every piece of code used to create this game is publicly available. Even more: you are free – even wanted – to change anything you want by yourself whenever you feel you can help make UFO:AI a better way to waste time. This may be typos or even complete mods or patches – it's up to you.

Since UFO:AI is open-source development by a bunch of non-profit oriented people, this means that there is no backing by a big company in order to pay for extensive testing or balancing. Whenever you encounter a bug, a hardware incompatibility or any other problem, it would be a nice gesture to give something back to the community – even a carefully filled out bug report [2] helps a lot. So we hope to do our little share to promote free software and build up a productive open-source gaming community. And no matter what kind of skills you call your own, if you are a coder, 2D or 3D artist, map-designer, or even film-script writer, musician, concept-art designer (all of these made UFO:AI what it is today) be assured that there is a project waiting for your help.

If you are interested in adding to the game, please visit the *Contribute* section in our wiki at `http://ufoai.sf.net/.` You will find a lot of useful information about model and image formats, a lot of tutorials about mapping, and so on.

2.2 Contact / Support

Support, additional information, FAQs and the forum can be found at `http://ufoai.sf.net/.` For a release history, latest releases and bugfixes as well as the bug- and feature-tracker[3] please see our project page at `http://www.sourceforge.org`. Sourceforge also allows you to take a look at our project page, where you find detailed status reports and contribution- and member-lists. In addition to the forum we also host the channel `ufo:ai` on the freenode[4] IRC network. Please make sure you try to find solutions for rather trivial problems on your own before asking on the board or on IRC. (This is known as *netiquette*.)

For interested media we also provide screenshots and offer further support for any planned coverage – feel free to contact us.

[2] `http://sourceforge.net/tracker/?atid=805242&group_id=157793&func=browse`
[3] `http://sourceforge.net/tracker/?group_id=157793`
[4] irc.freenode.org

3 First steps

This chapter is obviously dedicated to players that are new to the UFO series or even turn based tactical combat games in general. Experienced players may skip this chapter, but of course there is no harm in reading it anyway.

The usual process after starting a new campaign is the same for all kind of players at all levels. First you must choose a proper place for your home base. While there are strategic differences between certain locations, there is hardly any no-no spot, so make your selection as you like.

After you have set up your base, you may want to prepare your squad so everything is ready in case aliens show up immediately. We assume that you have started your game with the default settings (starting with buildings in base and employees hired). The next thing you should do is to open up your base screen by clicking on the base, and then select Aircraft → Equip aircraft. (This may seem to be a strange way to group the squad menu, but turns out to offer certain advantages later on.) You will now see a list of all available soldiers. You assign soldiers to your dropship by turning the X buttons to the right of their names into a $\surd$. Clicking on their names brings up their detailed statistics, but instead of doing so we will click the arrow symbol in the very bottom right-hand corner.

Now we have entered the *Equip Squad* screen. While its particular elements will be discussed later in the `Geoscape` chapter, we will currently limit ourselves to the most urgent actions. First you need to get an overview about your soldiers' weapon skills using the "actors abilities" screen. Once you have done so, you should determine many weapons of each kind (assault, heavy etc.) you want to use for your squad, taking into account how many weapons of each class you actually own. If you lack a certain item, you can try to buy it using the "Buy / Sell Equipment" menu (reached through the base screen). While equipping your squad, don't forget to give them all armour and extra ammunition. Now, the most important part is done and your squad eagerly awaits its first mission.

In the meantime, your job as the commander of PHALANX is barely started. In order to fight the alien invaders, your task force will rely on the best available technology. Your research department's job is to offer the best the human mind can invent. Using the research menu, you can can decide what your scientists should focus on next. It is also be a good idea to keep your production facilities busy.

Now you should be done with the basics. Of course there are a whole lot more features to explore, but this is not the place to spoil all your fun in finding out on your own. Instead you may turn up game speed in Geoscape until the first alien attack offers you the chance to prove that you are worthy of leading PHALANX.

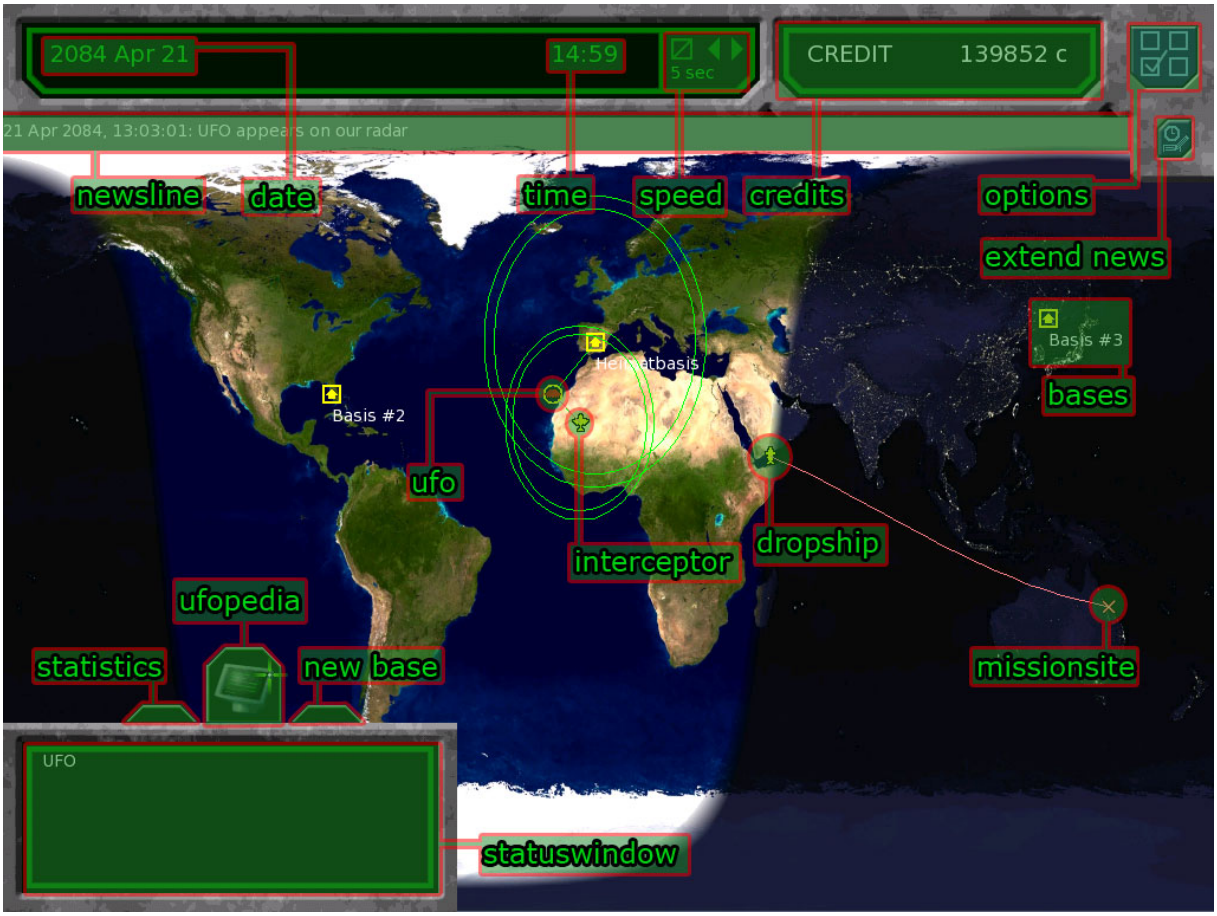
4 Geoscape

4.1 Worldmap - an overview

Welcome to Geoscape! As noted previously, UFO:AI distinguishes between two major aspects of the game – macromanagement and tactical combat. While combat is where you earn the bucks, this is where you spend them.

Geoscape is itself made up of two screens. The first is the world map, which is the first screen you will see right after starting a new campaign. It is used to get the big picture of world events, as well as coordinating combat missions and intercepting enemy UFOs. The other screen is the base overview, where you improve base infrastructure and implement decisions about equipment, research, and production. In the following sections we will take a closer look at both of these screens.

The following screenshot shows the uses to which we can put the world map. You can see that it is divided into day and night zones, which influences any combat missions you get into. The day/night borderline also changes shape according to the seasons as the relation of the Earth to the Sun changes.



4.1.1 Status Window

Here some general information like stats and descriptions will show up, depending on context.

4.1.2 Statistics

If you hover over the registers in the bottom left, three different buttons will show up. The leftmost leads to some more detailed statistics about your attempt to save the world. In addition to more general information (like missions won/lost etc.) you can also find out about the attitude of all the UN countries paying you. You should be aware that if you fail to protect particular countries from alien invasions (maybe because your infrastructure is not well established in that region) they will cut the resources they provide – both financial and potential employees.

4.1.3 Ufopedia

The middle button is the Ufopedia, a comprehensive collection of useful information about items, technologies, damage types and so on. As your research proceeds, the Ufopedia grows as well, so make sure you check out the latest information every now and then.

4.1.4 New base

The rightmost button allows you to establish a new base anywhere on the planet's landmass. A new base, once you have built it up, can give additional radar range, research and production capacities, as well as new hangars for your aircraft. There is no practical difference between your first base and ones you build subsequently.

4.1.5 Date

This gives you the current date, so you know when it's close to pay day. You should also keep an eye on the date because while you – in principle – have unlimited time to play the game, the aliens get stronger and better equipped as the game proceeds. It is in humanity's best interest if you can catch up with them sooner than later in order to save your beloved homeworld.

4.1.6 Time and Game Speed

This is where you can adjust the gamespeed from 5secs all the way through to steps of one day. Whatever this is set to, while you are in combat time is stopped and it will be all the same when you return from battle. The game will also automatically pause for certain events like UFO spottings and landings.

4.1.7 Credits

Never forget that you can't spend what you don't have. This shows your available cash.

4.1.8 Options

Gets you to the *Options* menu where you can load and save your game as well as start a new one. Through **exit** you reach the main menu where you can change game settings and continue your current game (via Single Player → Continue)

4.1.9 News and extended news

The permanent news line in the upper left always represents the latest news (such as promotions, cashflow, UFO sightings and attacks) while the *extended news* button pops up a list of the last 20 new lines. Whenever you notice news, you should check the button as well so as not to miss anything.

4.1.10 Bases

The yellow houses represent your bases. Circles around them represent the range of their radars. To bring up the base view, just click on its symbol.

4.1.11 Your ships

You have two general classes of ships, interceptors and dropships. Both work the same. While they're out on mission, a single click will select them, and clicking somewhere on the map orders them to move there. A doubleclick brings up a window for more advanced orders. Interceptors are used for intercepting and shooting down UFOs, while dropships are used to get your soldiers out on a mission. Your ships have limited ranges, which you may extend by supplying them with extra fuel tanks. However, the tanks will slow down the ships.

4.1.12 Upcoming missions

This is where the action waits. Selecting a mission will give you a short description on the status screen while a second one allows you to select a ship to bring in the troops you want.

5 Your base

You will use your bases in order to accomplish a wide range of tasks, ranging from the researching and production of new equipment to gathering background information on the invaders. You can change the name of your bases by clicking on the pen icon right next to its name on the base screen. You can also cycle through all your current bases using the arrow icons. The following subsections describe the basics of base management.

5.1 Buildings

This is where you order the construction of additional facilities for your base. Building laboratories will allow you to increase your research cap, hospitals will allow you to hasten your soldiers' healing, and workshops allow you to produce more equipment. Before you place a new building, make sure you have read its Ufopedia entry. There you can find out what the building is used for, or if it requires additional buildings to be constructed. Keep in mind that at least a power plant and command centre are needed for most other buildings to be useful. Another important aspect when expanding your base is building time – buildings vary quite a bit in this regard. Don't forget, new bases can be built in other locations, so you don't need to place all facilities in one location. Since space on individual bases is limited, you will need to carefully select what to build where.

5.2 Aircraft

This menu brings up a screen where you manage the aircraft at that particular base. This includes not only equipping your vessels, but also buying new ones or transferring them to another base. You can cycle through all your aircraft using the left and right arrow icons. From here, you can also call a ship back to base or launch it, although you're more likely to want to do this from the *Geoscape* screen.

Probably the most important sub-menu here is *Equip Aircraft*. This brings up a screen which allows you to choose which soldiers to assign to your selected aircraft. A standard dropship has room for 8 soldiers, and you will generally want to use all of them (unless you like a challenge, of course). In order to choose the best soldiers for an upcoming mission, you are provided with a picture of your selected character and his statistics. A simple click on the 'X' or $\surd$ assigns or removes the selected soldier from the current ship. You may also rename your fighters using the "edit" button in the upper right, just next to current soldier's name. Also please notice that while you can assign one soldier to an interceptor ship, this currently will do you no good.

Once you have decided who to take to the battlefield, you must confirm your selection using the button in the very bottom right corner. At this point an inventory screen will come up. Provided the ship in question has yet to leave, you can re-do your troop selection as often as you want.

At the inventory screen, you can equip your soldiers for their upcoming missions. In the upper left you see all soldiers assigned to the current aircraft. On the opposite side of the screen, you see the soldier with his inventory. The amount of space an item requires is represented by the number of squares it covers. The biggest part of the screen is used by your base's item stock. You choose which of the four categories of equipment (Primary, Secondary, Miscellaneous, Armour) to display using the appropriate button, then drag and drop items from the base stock into your soldier's inventory. Weapons shown with a red background lack the required ammo and aren't useable. You may equip them anyway, but unless you get the required ammunition from

somewhere else they won't be of any use. Every soldier has different weapon skills, and the lower left hand side of the display will show these to you. Some weapons utilise different weapon proficiencies, depending on the chosen firemode. Alternatively to the soldier's stats window you can change this to an object details view which presents the basic stats of an item. For details on damage and firemodes of a weapon you need to view the details of the relevant clip / ammunition, as some weapons can be equipped with different types of ammo. Clicking on the arrow symbol in the bottom right corner confirms your selections and gets you back to the aircraft screen.

5.3 Buy / Sell Equipment

Here you can get new equipment from the global market or get rid of any item for which you have no further use. Items not carried by your soldiers at the end of a mission are sold automatically, the details of which will be displayed on the summary screen. If you want to use the items captured you can simply buy them back here. Currently there is no difference between the purchase and sale price of individual items, so you won't lose money in these transactions. However, future versions of the game will include a better economy model and so this will likely change. The amount of any kind of items available may change in the course of the game with your world reputation. Again, all items are again sorted into four categories.

5.4 Transfer

Here you can transfer your equipment between different bases.

5.5 Research

Research is a critical factor in your attempts to defend earth against the alien threat, so it is essential to keep your R D department busy. It is important to research all available aspects, although the temptation will be to research weapons first. On the *Research* screen, the left part gives all possible research options. The right part shows details on the selected subject. In order to discover new research options it's usually necessary to capture examples of the appropriate item, an alien body, or even a live alien. Sometimes a simple prototype of some alien tech is not enough to get your research started. In such cases the research option is given in grey letters as it requires further research on some other more basic field beforehand. The concrete dependencies for each technology are given in its details shown on the right side of the screen.

To assign scientists to a research project just use the left and right arrows next to the technology in question. The left arrow will add scientists to the research project, while the right one will re-assign them to the pool. The actual progress is given in the left window. Hint: while it is possible to work on several technologies at the same time it is usually better to focus on one project at a time.

5.6 Production

Here you can built equipment that is not available on global market, or that is a result of the efforts of your research department. To order an item to be built, select it on the left part of the screen and adjust the number to be built using the arrows under its image. The production cost of one item is initially taken from your cash if you are building more than one. For example, while 3 assault rifles cost 63000, you need only 21000 to start production.

5.7 Hire employees

Using this screen you can add more personnel to your organisation. While especially in the beginning people do not trust your ability to counter the aliens, they might be more enthusiastic (and therefore willing to work for you) as you proceed. On the left side you find all members of one group (soldiers, medics, workers, scientists) listed. Clicking on the 'X' or $\surd$ hires or fires them. You can hire and fire them as often as you want, they will never get angry at you. But please be aware that personnel you hire in one base won't be accessible from another base. So if you want to fire someone make sure you are in the corresponding base. Also you should keep in mind that the amount of personnel that can work in your base might be limited by the base's housing or working facilities.

6 Game Mechanics / Management

6.1 Research

Every unknown alien technology must be researched by your scientists. You will get a brief description for each technology in your mail client – make sure you read it.

6.2 Promotions

While the actual implementation is still under heavy discussion a few comments might help to understand how it works now. Despite what one may think, the main criteria for promotions is not the missions / kills ratio but the mind skill. You simply don't want a psychopathic, thrill seeking terminator like guy as squadleader but someone who is mentally stable. Currently, only one member of your squad can be promoted at a time. Here are a few of the rank badges.


Rifleman


Sergeant


Captain

The complete list of ranks is Rifleman (Rfn), Lance Corporal (LCpl), Corporal (Cpl), Sergeant (Sgt), Warrant Officer (WO), Senior Warrant Officer (SWO), Second Lieutenant (2Lt), Lieutenant (Lt), Captain (Capt), Major (Maj), Lieutenant Colonel (Lt Col), and Colonel (Col).

6.3 Interceptions

6.4 UFO Recoveries

6.5 Alien Autopsies

7 Tactical combat - Battlescape

The goal of every tactical combat is simple: kill all the aliens with as few civilian and squad losses as possible. In order to achieve this you will have to find a good balance between caution and speed. You don't want to watch all innocents die like flies just because your soldiers are afraid of the enemy. If you cannot succeed in tactical combat, you will never succeed in the game.

During the course of gameplay, you will see a wide range of settings and environments, but no matter how bad things may look, there are some powerful tools at hand. If you have some experience with (turn-based) tactical combat games you should find some familiar elements. Nevertheless, you should take a short overview over the interface so as not to miss any important features.

To change the view within battlescape you may use either cursor or the *WASD* keys. Please be aware that its also possible to change the pitch of the camera – *R* and *F* by default.

There are currently two alternative interfaces available, offering identical functions with a different look. You may switch between them as often as you want, using options ↪ game. While the first one is heavily inspired by the classic HUD, the second one (althud) tries to utilise modern techniques to achieve a cleaner look.

7.1 Buttons - HUD



7.1.1 Floors

Here you can change the "floor" shown in the tactical view. Besides its obvious use in helping you to move your soldiers between different levels, it's also used to get an general overview. You should always switch between all levels at the beginning of each mission so you won't miss the "hidden" cellar or rooftop.

7.1.2 Portrait and name

This is more for aesthetic reasons, and does not currently perform any function.

7.1.3 Team members

Use this to switch between your soldiers. Alternatively use keybindings: *1* to *8*, or you can also just left-click on their model. If one of your soldiers is killed, his button will turn grey and become non-functional.

7.1.4 Known aliens

This indicates the number of aliens all your squad member have discovered. You may switch through all of them by clicking this button.

7.1.5 Next round

This immediately proceeds to the next game turn.

7.1.6 Options

Opens the *Options* menu where you may alter several video and sound settings, as well as abort or retry the current mission. You may not save an ongoing mission. If you abort the current mission, all your soldiers will be lost.

7.1.7 Vital stats

Here you will find more detailed information about health, morale, and psi-power of your individual soldiers.

7.1.8 Inventory

Opens the inventory of the selected soldier. This is where you can change weapons, pick up and drop items, or just take a look at your great heroes.

7.1.9 Soldiers stats

This is a summary of all general information you need to use your soldier. It is context-sensitive, and hopefully self-explanatory. Here you will find information like remaining health and TUs (dealt with in the following section), how many TUs your currently selected shooting-mode will consume, current armour, and morale.

7.1.10 Reaction fire

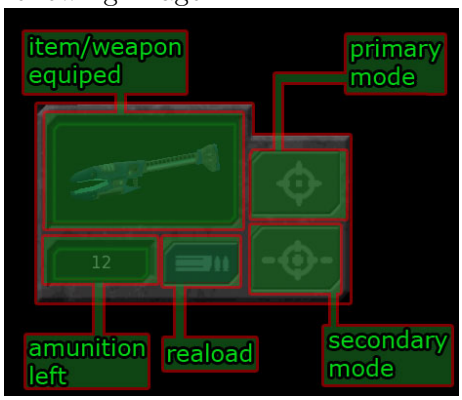
Reaction fire will be dealt with in a later section, so for now you should just remember that this is where you turn it on and off.

7.1.11 Crouch

Clicking this will cause your soldier to crouch or stand up. Crouching reduces the danger of being hit by enemy fire, but causes movement to cost 1 extra TU per square.

7.1.12 Right/left-hand

While all soldiers are right-handed, they can still wield a weapon in each hand. If you have a two-handed item/weapon equipped the left-hand field will be inactive. Please take a look at the following image.



7.1.13 Item/weapon

Gives a picture of the currently equipped item/weapon. This turns red if you can't use the weapon, if you don't know the technology or are out of ammunition for it.

7.1.14 Primary and secondary item modes

The primary mode for a weapon is usually a faster but less accurate or powerful shot. Weapons include more details in their item description. The secondary mode for a weapon generally includes a more powerful or accurate shot, which consumes more TUs when activated. Some items only support one usage mode.

7.1.15 Reload

If your soldier has remaining ammunition in his inventory, this will cause him to reload as fully as possible. Reloading always uses TUs, the amount of which varies according to the weapon type.

Remaining ammunition Shows the ammunition left in your weapon. Some shooting modes use more than one unit of ammunition; for instance, a burst from an automatic weapon.

7.2 Buttons - altHUD



All the buttons in the altHUD perform exactly the same functions as in the primary HUD, so please refer to that section for details.

8 Game Mechanics - Battlescape

8.1 Time Units (TUs)

Every soldier has a variable amount of TUs, mainly determined by his "speed" attribute. Every action performed costs a different number of TUs. The amount of TUs needed for using the primary/secondary mode of an item is given in the status window after selecting one of the two, whereas other actions have fixed costs.

8.2 Movement

Like firing a weapon, movement also consumes time units. You can make your soldier walk to a spot using your mouse on the tactical view. You will notice that your cursor turns to a green square indicating that this place is reachable with your current amount of TUs or turn blue if it is not (this might be the case due to a lack of TUs or for geographical reasons). If the square is green it will also prompt two numbers of which the first one states the TU-cost of this movement while the second one represents your actual amount of TUs. If your soldier notices a new enemy or civilian in his line of sight while walking, the movement will be interrupted to give you the chance to change your orders.

8.3 Line of sight

Your soldiers can generally only shoot at what they see. After finishing an ordered movement your soldier will look in the direction of his last step, which is not very helpful in a lot of situations. You can change your soldier's facing using several different methods. For details please refer to keybindings in the game options menu, or you can use the *right mouse button*.

8.4 Shooting modes

As we have said before, many items have two different action/firing modes. While the second firing mode of a sniper rifle is an aimed shot, some assault rifles can start a long fireburst or fire one concentrated and therefore devastating single beam. Whatever weapon interests you, Ufopedia is your friend. You should also consult the Ufopedia for each individual type of ammunition, as the sort used can radically alter the characteristics of a weapon. Some ammunition will even change the skill required to use that weapon. Many entries are not available until you have researched them, so you should frequently check back with the Ufopedia.

8.5 Close combat

Caught with the wrong weapon armed as an alien pops up around the corner? Your soldiers keen on some extra thrill? You want to capture a living alien for "interrogation" but all your research department has to offer is a stun rod, which they say *may* work – somehow? No matter what the reasons may be, there will be times you will get into close combat, or it will get to you. While the reason to be that close to an hostile alien might be quite scary, the interface for close combat is not. It works exactly like carrying a gun, but your power skill is taken into consideration when calculating the combat results. Most close combat weapons cause a large amount of damage relative to the TUs required to use them, making them a reasonable choice in confined spaces like buildings and the likes. **Hint**: Most pistols also fall under the close combat category.

8.6 Friendly fire

You had better make sure there are none of your soldiers in any possible line of fire when using indirect or direct firemodes – friendly fire kills just as effectively as enemy fire.

8.7 Reaction fire (RF)

One of the main aspects of combat every commander needs to be able to use to his advantage is "reaction fire" (RF). You may recall this from the discussion of the basics of the Battlescape.

There are two kinds of reaction fire (referred to RF-1 or RF-2 in the following). Which mode your soldier will use is indicated by one or two $\surd$s (HUD) or an "i" or "*" (altHUD). When enabled (costing a certain amount of TUs) your soldier will be able to react to new sightings during the enemy turn. When using RF-1, your soldier has one shot at any enemy that he has at least a 30% chance to hit with no more than 5% risk of friendly fire. Those conditions also hold for RF-2 but with this option the soldier in question fires as often as possible, using TUs available for next turn.

If your units have suffered casualties with RF activated, your soldiers may refuse your order to "turn it off", as they are too scared to let their guard down. They may also take greater risks (lesser chance to hit or bigger tolerance for friendly fire) in their attempts to kill the enemy. This is influenced by the soldier's morale, so see the relevant section for more detail.

8.8 Damage Types

Different weapons cause different kinds of damage, and so do different loadouts of ammunition. To reflect this, each weapon and type of ammunition is assigned a particular damage class. This is important when it comes to armour types as different armour types defend better against different damage types. Details can be found in the relevant Ufopedia entries for armour and ammunition. For instance, some armour that is almost impenetrable for plasma weapons may fail to offer any protection against fire damage.

8.9 Stun

In order to find out more about your alien enemy and his goal, motivation and structures you might find it useful to catch one or more them for interrogation. Once your research lab has developed the tools needed to do so, you may use them as any other weapon. After successfully finishing a mission, any stunned aliens will be brought to your base. You will first need special structures to ensure your "guest" will stay long enough to give you any answer at all. If you lack alien containment facilities, your stunned aliens will die instantly. If all goes well, they will open up new options in the research department.

8.10 Morale

Both your squaddies and the aliens have a morale stat, which plays an important role in tactical combat. In critical situations, morale can make a difference between victory and massive casualties and a failed mission.

There are a couple of influences to any character's morale and once one reaches a critical point, the result can be anything from throwing away his weapon and running away, to panic attacks – including shooting at allied forces.

A character's morale will drop slightly when he witnesses a civilian being killed. If the same happens to a fellow squaddie, his morale drops still more. On the other hand, if an alien dies nearby, his morale will increase. All that relative to the soldiers morale values.

9 Options

The *Options* menu can always be accessed by pressing *ESC* until you reach the main screen → Options.

NB: please submit patches to fill in the empty sections, the authors of this text are not at all conversant with the ins and outs of video displays.

9.1 Video

This section offers you various ways to make UFO:AI look the best way possible to the engine and your system. Please be aware that while most options here can cause improved graphics, they can also slow down your computer remarkably.

Resolution

You may choose resolutions ranging from 320x240 to 2048x1536. It might be worth noting that after the 'standard' resolutions, some rather rare resolutions like 1280x854 and the like follow, which might be interesting for laptop users. You can also set custom resolutions if you set the cvar **vid_mode** to *-1* and use the cvars **vid_width** and **vid_height** to define your desired resolution.

Fullscreen

Enable or disable fullscreen options.

Texture compression

Texture resolution cap

Show FPS

If you choose to turn on this option UFO:AI will display current frames per second in the very upper right corner.

Texture anisotropy level

Texture Lod

Image filter

Gamma

Here you may adjust the Gamma factor to your graphic card or monitor settings. Note that on some platforms (MacOS) this may affect your whole environment. Gamma affects the 'brightness' of your display.

9.2 Sound

NB: please submit patches to fill in the empty sections, the authors of this text are not at all conversant with the ins and outs of audio either.

Effects

Use this fader to adjust effects volume for your neighbours' ears.

Music

Use this fader to adjust music volume once you get bored of your private music collection.

Mixing rate

Increase the quality of the audio.

9.3 Game

Besides having the chance to change your Player Name, the game options also offer more practical opportunities. Some of these affect only new games, while others cause changes in games that are currently running.

Start with employees

Choosing this option will make you start with a set of employees as well as some basic equipment for your soldiers. If you prefer to do really everything on your own, switch to "no" here.

Start with buildings

If you say "yes" here UFO:AI will equip your first base with standard set of facilities that should do the trick quite nicely. Perfectionists may wish to choose "no" here.

Confirm actions

You may want to enable this option in order to prevent mistakes or to make it easier to play UFO:AI while drunk. Doing so will make Battlescape show you the path your soldiers will choose once ordered to move to a certain spot. In order to finally make the soldier in question move there, you will need to press *Enter*.

HUD design

This toggles between the classic and altHUD for the tactical combat interface. While you can change this option during combat, it will not take effect until your next battle.

Center view

This influences whether or not the HUD will focus on the selected soldier as you change between members of your squad.

Cursor tooltips

Turn on/off cursor tooltips, indicating the function of the various UI elements.

Camera scroll

Adjust how quickly the camera will scroll.

Camera rotation

Adjust how quickly the camera will rotate.

10 Multiplayer

10.1 General

HTTP is used to query the master server and game server, both dedicated and listen. IPv4 and IPv6 are both supported, and the servers run at TCP/27910.

10.2 Client

You can play 'UFO: Alien Invasion' with your friends via LAN or Internet connection. One player controls a human team while another player takes command of the aliens for a bloody head-to-head battle. UFO:AI also supports cooperative team play with multiple players on both sides. Just enter the multiplayer menu. Local servers in your LAN should be automatically shown – if not, you can use the connect to IP feature from the menu. Internet servers should be shown after querying the masterserver. Clients and the server should all run the same version of the game.

10.3 Server

10.3.1 General

You can add your own maps by copying their *bsp* files into *base/maps/* or copying the *pk3* files to *base/*. These maps can be added to the mapcycle and, like any other map, can be started via the **map** command. If you want them to appear in the multiplayer menu for listen servers, you have to add a *yourmapname.ufo* into the *base/ufos/* folder and add a map entry. If that directory does not yet exist, you can create it. Examples can be found in the *base/0ufos.pk3*[5] file in *maps.ufo*.

10.3.2 Listen Server

You can start a server for you and your friends from within the game menu. Just enter the "Multiplayer" menu, load your team as you would if you were a client, and enter the *Create* menu. You can then select the map and game type. There are also other settings that can have an influence on gameplay – see their tooltips for more information.

10.3.3 Dedicated Server

The dedicated server is console only. Useful commands are **gametypelist**, **maplist** and **map**. You can set the gametype by modifying the **gametype** cvar.

10.4 Remote Console

You can use the **rcon** method to change the map – all the server administrator has to do is to set the cvar **rcon_password**. The client has to set this cvar to the same value and use the **rcon** as prefix for the normal console commands.

[5] pk3 files are just zip files

10.5 Mapcycle

Using this, the map is automatically changed when one team wins the game. If no mapcycle is set, then your multiplayer games will always use the same map. The mapcycle is defined in a file called *mapcycle.txt* which is in your *base/* folder or in *./ufoai/version/base*. This file is in the form "map gametype" and each entry is separated by a newline.

There are commands to modify the mapcycle from within the game:

mapcycleadd Add new maps to the mapcycle

mapcycleclear Delete the current mapcycle

mapcyclenext Start the next map from the cycle

mapcyclelist Print the current mapcycle

11 Troubleshooting

This section tries to address some known problems and possible workarounds. However, your first and most up-to-date reference should be the project homepage. Make sure that you also check out the FAQ[6].

Your game console is logged to your UFO:AI userdata directory and is named *ufoconsole.log*. It might have some useful information on what is wrong.

11.1 Turning off sound completely

Even if this is not an elegant way to solve problems, it at least helps to narrow things sometimes to switch off any sound. While simply turning the volume to zero still loads the drivers, the command **+set snd_init 0** disables them completely. If this solves your problem, please send in a bug report so your issue might be addressed.

11.2 Video drivers

If you're running Windows or Linux, you should always ensure that you have the latest vendor-specific video drivers for your card.

11.3 Turning on developer mode

You can set the cvar **developer** to *1* or use the **setdeveloper** command to activate the debug output on the game console. **Warning:** There might be a lot of output that will flood your game console. Output is also stored in your *ufoconsole.log*.

11.4 Reset your configuration

It might also help from time to time to reset your configuration. To do this, delete *config.cfg* in your UFO:AI userdata directory.

[6] http://ufoai.ninex.info/wiki/index.php/FAQ

A System Requirements

OS Linux, MacOS X, or Windows. For MacOS, you (probably) need to be at at least version 10.4 'Tiger', although either PPC or Intel should work. For Windows, you need to be running at least XP. Most major Linux distributions should have the libraries necessary to run the game.

Soundcard PC: Soundblaster compatible. Mac: supported.

Graphics card with OpenGL support

RAM minimum 256 MB

CPU at least 1000 MHz

Hard disk space at least 700 MB

B Credits

B.1 Current Development Team

BTAxis	Storyline
Gerd	Coding
Hoehrer	Projectleader / Coder / Models / Textures
Kracken	Coding
Mattn	Projectleader / Coder / Models / Maps / Visual Effects / Textures
Winter	Storyline / Ufopedia
Zenerka	Coding

B.2 In honour of the original Development Team

Herby	Code / Visual Effects
Rastamann	Models / Animation
SparX	Maps / Textures / Art
Vanethian	Music

B.3 Community

Thanks to all supporters and contributors who helped this game become reality. This project would not have been possible without your help.

C Licenses

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The Creative Commons home page may be found at <http://creativecommons.org/>.

D Changelog

0.2

Extensive edits to all chapters by Mike Patterson. Remove redundant content in altHUD section.

0.1.1b

Re-add content accidentally deleted in *0.1.1*.

0.1.1

Never published. Initial copyedits and chapter breakup by Mike Patterson.

0.1

Original revision by Eric Goller.