

Chaos User Manual

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1 Introduction

Chaos is a strategy game for up to eight human players. The computer can also partakes in the game and controls independent creatures. Each player starts the game with a wizard and a repertoire of spells. The idea is to be last wizard alive and to amass the greatest score.

The game is played entirely with the mouse and is icon driven. All the entities in the game have graphical representations. text bar at the bottom of the screen is used to display other information.

The strategy elements in the game involve choice as to when and how to use the wizard's various spells and in deciding when and how to attack your opponents.

A game is organized a series of rounds. Each round consists of several stages, and each living wizard may partake in each stage of each round. The major stages are: spell selection, spell casting, and movement. Each of the stages is described in detail below. As well as these main stages there are also a number of auxiliary stages performed solely by the computer.

The game is played on a rectangular board of square cells. Each cell can contain one entity.¹ You move your pieces around the board using the mouse. The cost of a move depends on the Euclidean distance between the initial cell and the final cell. Put simply, it costs more to move diagonally, than it does vertically or horizontally.

To further enhance the game in the future a series of predefined levels are in preparation. These levels will be suitable for single player or two player games.

It is important to understand there is a distinction between the gaming environment supplied by the computer and the computer controlled entities. When the computer moves its creations it does not get access to any information that you cannot get, in fact, the computer bases it moves on less information than a human player.

The remainder of this section describes in detail the various stages of a round. Section 2 discusses the different types of entities in a game. Section 3 is a comprehensive list of the spells and their effects. Section 4 covers legal and installation issues. Section 5 mentions future developments.

1.1 Spell Selection

For each human wizard in turn, the right of the screen is filled with the currently available spells for that wizard. Information can be obtained about the spells by reading about the spells in this manual or by selecting the "?" gadget and then clicking on the spell you wish to know about. A wizard can decide not to choose a spell by clicking the return gadget, whence control will pass to the next wizard.

Assuming you wish to pick a spell, simply click on the desired spell. During the casting stage you will attempt to use your selected spell. Care should be taken in spell selection. Consider such things as the range of the spell, the situation of the wizard, your position on the board, and whether you require line

¹Well actually cells can sometimes contain more than one entity. But only one entity is ever visible in a particular cell. Cases where there could be more than one entity are when living creatures and standing on dead creatures, etc.

1.2 Spell Casting

During spell casting each player who selected a spell during the spell selection stage will in turn get a chance to actuate the spell. In addition each generator on the screen might produce a creature.

For each player the spell selected is shown on the bottom line of the screen, together with the range for the spell; for example,

Gray Elf [2]

means we are casting a gray elf, and the elf can be cast either immediately adjacent to the wizard or one cell removed from the wizard. A range of zero means the spell can be cast simply by pressing the left mouse button and there is no need to select a cell. Such spells are usually special things such as magic wings or a sword for the wizard. The computer automatically applies the spell to the correct wizard or creature. Other spells have a range of fifty (such as cloak), these spells can be cast on any appropriate cell on the screen and do not require line of sight.

Most spells have a fixed range, measured in a straight line from the casting wizard. For instance, nearly all creatures have a range of one and so can only be cast immediately adjacent to the wizard. All these spells require line of sight. The line of sight is measured from the centre of the wizards cell to the centre of the destination cell. You can see over blank space, dead creatures, and fires. Sometimes line of sight can be obtained by waiting to an appropriate time in the animation sequence.²

Spells can be aborted by pressing the right mouse button. Aborted spells still get used up, so you should try to avoid having to abort spells. If you find yourself aborting spells often, you are probably not choosing spells appropriate to your situation.

Most spells can only be cast on certain types of cell (the program will notify you of any errors you make in selecting the cell). If you make an error you are free to choose a new cell. For instance, creatures can be cast on empty cells or cells containing dead creatures, but cannot be cast on other creatures or inanimate objects.

Generators may produce creatures on any cell adjacent to the generator which is empty, contains a dead creature, or contains a growth. Adjacent cells occupied by creatures, or inanimate objects will never be generated upon. Computer controlled wizards will attempt to cast a spell at their position in the sequence.

1.3 Board Update

The board update is handled entirely by the computer. The update carries out activities which are not directly under any players control. During the update any or all of the following things might happen:

- The growths (fire, flood, orange jelly, gooey blob, and green ooze) are permitted to grow. Each cell containing a growth may or may not grow. If a cell is going to grow it will do so in only one direction in any particular turn. The direction of growth is chosen at random. Some of the growths grow faster than others, orange jelly is particularly voracious while floods tend to be sluggish. If a cell doesn't grow it might die instead. You may have some of your creatures buried, killed, or revealed in this growth process. Should your wizard be buried or killed you are considered dead and your game ends.
- Any tempests on the board will move. A creature in the path of the tempest will be thrown to a new random location. On very rare occasions a creature will be killed as a result of the throw.
- There is a chance that each magic castle and dark citadel on the board might collapse. If a wizard is inside the castle or citadel when the collapse occurs the wizard will be granted a new spell.
- Any magic wood occupied by a wizard might collapse, resulting in a new spell for the wizard.

²To experienced players this is known as **forcing**.

1.4 Movement

The movement stage is the most complex stage since normally there is a large number of creatures to be moved and each creature has a number of possible moves. Each player is given a chance to move in turn. The strategies you employ during the movement stage will have the greatest effect on your survival in the game. Movement involves not only the shifting of creature positions but also combat.

Dead creatures, sleeping creatures, and growths cannot be moved. No inanimates can be moved, although any shadow wood trees may be used to attack enemy creatures³ in adjacent cells.

A player is able to move each creature once in each turn. To end your turn click on the arrow gadget and control will pass to the next player.

A creature is said to be **engaged** if it is in close proximity to any enemy creature and is unable to retreat. Engaged creature cannot be moved but may still be able to fight. How likely a creature is to be engaged is dependent of the creature's manoeuvrability.

To move a creature simply click on the creature using the left mouse button. Normally the distance the creature may be moved will be displayed in the text bar. Depending on the creature we may be doing flying movement or walking movement.

1.4.1 Flying Movement

For flying creatures you can pick any cell within the given range⁴ except cells occupied by your own creatures. If the cell is empty or contains a dead creature the creature will move to the selected cell, otherwise an aerial attack will be made on the selected cell.

1.4.2 Aerial Attacks

An aerial attack results when a flying creature is moved onto a cell occupied by an opponent. The flier will attack the current occupant. If unsuccessful the attacker will remain at its current location. If successful the current occupant will die and the flying creature will be moved into the cell.

1.4.3 Walking Movement

A ground ridden creature can only move one cell at a time and you must show the computer exactly how to move multiple cells by clicking in each cell in turn. Many walking creatures can only move one cell anyway. For those which can move more than one cell you should select a sequence of adjacent cells—you can abort the move at any time by pressing the right mouse button. During the course of a move a creature may become engaged in which case it will move no further.

1.4.4 Combat

Engaged creatures can take part in combat. You cannot attack your own creatures (but see ranged combat). Living creatures cannot attack undead creatures, otherwise anything goes. Once engaged an attack is induced by clicking on the cell containing the creature you wish to attack. If successful the defendant will be killed and the attacker will move onto the corpse.

³Unlike creatures, trees cannot attack other inanimate objects, or growths

⁴The distance is calculated in a Euclidean manner; that is, horizontal and vertical movements cost 1, diagonal movements cost $\sqrt{2}$.

1.4.5 Ranged Combat

Some creatures such as elves, dragons, and wizards carrying bows, have additional attacks. Such an attack is indicated by the sights pointer. Line of sight is required for all these weapons. It is possible to shoot your own creations, so choose your targets carefully. Occasionally it might be desirable to kill you own creatures (especially if you are playing for points).

1.4.6 Wizard Movement

Under normal circumstances the wizard can be moved like any other creature. Wizards are capable of special movements. Firstly, wizards can climb magic trees, enter castles, and ride certain creatures. For convenience these activities are collectively called **mounting**. You cannot mount if you are engaged, otherwise mounting is effected by simply moving the wizard onto the cell occupied by the entity you wish to mount. There is a bug in the program which currently prevents you from mounting undead creatures.

Dismounting is somewhat more complicated as the computer needs to distinguish which of the two entities is to be moved. For trees and castles the computer will assume the wizard. For ridden creatures the default is the creature, to dismount from a creature the following sequence should occur:

1. Select the creature the wizard is riding.
2. Select the "D" gadget (which will now be unghosted).
3. Move the wizard to a cell adjacent to the creature.

Mounting is generally a good idea, as it hides your wizard from view and gives the wizard additional protection.

1.4.7 Ending Your Turn

Once you have moved all your creatures that you wish to, select the end of turn gadget. Computer controlled wizards will move their creations at the appropriate point in the sequence. After all wizards have moved the independent creatures will be moved by the computer according to the same rules. Finally any wasp nests on the screen will attack adjacent opponents.

The round is now effectively over and the game returns to the spell selection stage for the next round.

1.5 Scoring

The computer keeps track of a score for each player and this is indicated by the computer displaying a ranking of all wizards and the independents at the end of the game. There is a score and a life column. The life column is the sum of the life force of a wizards creations excepting walls and castles. The current scores can be examined during the spell selection stage using the menus.

Points are awarded for killing enemy creatures and wizards. The stronger the creatures you kill the more points you get. Bonus spells are awarded for killing particularly strong creatures.

1.6 Information

The '?' gadget can be used to get information about objects on the board (at any time) and about spells (during spell selection). For an object on the screen a window is displayed showing various characteristics of the object chosen. The '?' gadget will not reveal any useful information when applied to a cloaked creature, even if you own it.

The menus can only be used during the spell selection stage. They are primarily concerned with loading and saving games, but it is also possible to turn the speech on and off. The sound option currently does nothing. There is also a menu to view the current scores.

2 Entities

This section describes in general terms all the types of entities which can occur in the world. A distinction is made between the type of an object and the status of an object. Type is used in reference to the kind of object some entity is, that is, whether it is a creature, inanimate object, growth, etc. Status is used to specify further division within an object, for example, most creatures have both a living state and a dead state. Indeed the status concept is generally only relevant to creatures as most other entities can only exist in a single state.

2.1 Object Types

There are many different types that an object may be classed as. Often an object will fit into more than one type simultaneously, other times only one type will apply. For example it is possible to have an undead, mountable, flying creature that shoots. Entities can be broadly classified as creatures and inanimates, although there are some entities which do not fall clearly into either of these categories. Creatures can be of a wide variety of types.

2.1.1 Inanimate Objects

Inanimate objects include all objects without consciousness. The classification, however, is a bit fuzzy and entities such as trees and gooey blobs are considered inanimate. Most inanimate objects can be further classified in one of the following categories: castles, growths, meditations, trees, and walls. Other inanimate objects are unique such as generators and tempests.

Castles: There are two objects in this subclass, namely the dark citadel and the magic castle. Both of these are also meditations. Magic castles and dark citadels exhibit identical behaviour, for more details about their use consult the spells section.

Growths: Growths are objects which if left to themselves and given sufficient time would expand to occupy all available space in the world. Gooey blob and fire are examples of growths. After spell casting each cell occupied by a growth might decide to grow. The cell can only expand in one direction at any particular time, but the direction of expansion is chosen at random. If players don't quickly take action to control the expansion of these growths then the growths will occupy large portions of the screen by the end of the game. Gooey blob will not cover other inanimate objects, but fire will eventually burn most objects. Clever players can use growths to their advantage (even when they don't own them).

Meditations: Meditations are used by wizards for meditation. Meditation is a process whereby a wizard can gain new spells. Some spells can only be obtained by meditation. To meditate a wizard simply climbs into a meditation object and waits for the object to collapse upon which a new spell will be granted. There are three objects in this subclass, namely, the magic castle, the magic wood, and the dark citadel.

Trees: The trees you find in this game (shadow wood and magic wood) are not like your average trees. The shadow wood has the ability to attack creatures that wander too close, whereas the magic wood may be used by a wizard for meditation.

Walls: There are three grades of wall: weak, standard, and strong. Each type of wall is a useful obstruction. Wall is particularly useful for checking the progress of growths or for blocking generators. As a subsidiary use wall is useful for building fortifications. Be aware that wall is not an obstruction to flying creatures. For the characteristics of the particular wall types consult the spells section.

Creature is a wide ranging term in chaos and is used to refer to any animate object. A creature may be a familiar animal like a lion, bear, or horse, it might be a humanoid race, like goblins, orcs, and elves, it might be a spirit, like ghosts and wraiths, it might be a wizard, or it might be a monster like a hydra. Creatures can be broadly classified into a number of overlapping classes. A creature may be living, undead, flying, ground-ridden, or mountable. For particular aspects of any individual creature see Creature Status below.

Undead Creatures: Undead creatures come from the spirit world or are animated corpses of the dead. Some creatures are naturally undead, all others can be made undead by using a raise dead spell on their corpses. The naturally undead creatures are: ghosts, skeletons, spectres, vampires, wights, wraiths, and zombies. These natural undeads do not result in corpses when they are killed, instead they simply vanish. Undead creatures cannot be attacked by living creatures (except in special cases where a wizard may be able to attack undead creatures), but undead creatures can attack both other undead creatures and living creatures.

Living Creatures: Any creature which is not undead is by definition a living creature (of course, creatures may also be dead, but this is considered as a status rather than a type).

Flying Creatures: A flying creature is able to take to the air. These creatures have the ability to fly over their enemies, over wall, and to mount aerial attacks from a distance. When a flying creature becomes engaged it cannot fly and fights like other creatures. The flying creatures include: bats, bird lords, eagles, falcons, ghosts, gryphons, harpies, manticores, pegasii, vampires, vultures, and all the various kinds of dragon. The range of flight goes from two cells in the case of the ghost to ten in the case of the falcon. With the addition of magic wings a wizard can be made to fly.

Ground-ridden Creatures: Any creature which is not a flying creature is necessarily ground-ridden. Ground-ridden creatures have to walk around obstacles like wall and fire.

Mountable Creatures: A mountable creature is a creature which may be ridden by the wizard. The horse and centaur are ground-ridden mountable creatures, and the gryphon, pegasus, and mantichore are flying mountable creatures. Dragons cannot be mounted.

2.2 Creature Status

Every creature on the board can be in any of a number of states at any particular time. Creature status should not be confused with creature type (see previous section). Creature status refers to such things as whether the creature is awake, sleeping, or dead. For convenience cloaking is considered to be part of a creature's status.

2.2.1 Dead Creatures

A dead creature is rendered on the board as a corpse and should easily be recognizable as dead. Creatures are normally killed by combat, but can occasionally die by other means. Not all creatures turn into corpses when they are killed, in particular, all the creatures which by their nature are undead, such as skeletons and zombies, do not become corpses when they are killed. Often use of magic will leave no corpse, for example, if a giant beetle is destroyed by a magic bolt, no corpse will result.

Corpses can be brought back to life by the raise dead spell. Corpses can be destroyed by various magical weapons and by fire. It is usually a good idea to try and cover up or destroy the corpses of powerful creatures (such as dragons) so as to prevent an opponent from using a raise dead spell on the corpse.

A corpse cannot be cloaked or asleep.

2.2.2 Sleeping Creatures

Sleeping creatures result from the use of the sleep spell or from the death of a wizard. If a sleeping creature is not awakened within a certain time it will decay and disappear (leaving no corpse). If you

Sleeping creatures cannot move or partake in combat, but can be attacked by other creatures. Note though, that you can never get engaged to a sleeping creature. The shadow wood will not attack sleeping creatures.

Other objects such as fire, gooey blob, and walls can also go into a sleeping state. In this state fire and gooey blob stop growing and other objects stop repairing themselves. The sleep spell, however, can only be used on creatures.

A sleeping creature can be cloaked. Once awakened the cloak will remain intact and function as expected. There is a slight risk for the user of the wake spell in that you cannot necessarily know in advance what you are waking up.

A sleeping creature appears just like its living counterparts on the board.

2.2.3 Cloaked Creatures

A cloaked creature can only be obtained by use of the cloak spell. For the advantages of cloaking creatures see *cloak* in the spells section. Cloaked creatures appear on the board as near invisible squares. The information panel will be unsuccessful in trying to determine what the creature actually is.

2.2.4 Normal Creatures

All other creatures are termed normal. Most normal creatures appear as animated renditions of themselves on the board. Some creatures can be distinguished by colour alone, for example the bat, falcon, and vulture. Other creatures cannot be distinguished by their appearance, for example, the hydra and pyrohydra.

3 Spells

To find out about spells when playing the game the “?” gadget can be used. Not all spells are equally likely to occur and some can only be obtained as bonus spells or be meditation.

Alter Reality This spell can be cast on nearly any creature provided it is not dead. The exception is creatures in which a wizard is mounted. The spell will cause the creature to undergo a metamorphosis to a new creature type. This spell can turn orc into dragons and vampires into ogres. The result is random. The spell can be cast on creations of any wizard.

Armour Armour can be used to boost the defences of any creature. A good candidate to armour is your wizard. Armour adds a third of the maximum life to the selected creature. You can apply armour to enemy creatures if desired. Line of sight is not required and the spell works over the entire world.

Bat Only colour distinguishes the bat from the falcon or the vulture the bat having the least abilities of the three. Although the bat is weak its flight allows it to be a persistent menace to slower moving ground-ridden species.

Bird Lord A bird lord is a king of the avian species. Often bird lords are mistaken as eagles. All bird lords can heal any wounds they receive at a phenomenal rate. The bird lord is amongst the fastest of all creatures and is well learned. Most magic will have little effect on a bird lord. The bird lord possesses adequate combat skill and can easily flee from danger. The biggest boon of the bird lord is its ability to fire an extremely acidic salvo an immense distance. The acid is strong enough to reduce a castle to rubble within a few shoots.

Bless The bless spell is used to improve the overall moral and strength of a wizard and creations. Every creation of the casting wizard’s including inanimate objects and growths receives a small boost in life. Bless spells are best cast when you have many creations or when you wizard is starting to founder. The curse spell has the opposite effect. You cannot bless the creations of another player.

be obtained by meditation. A blue dragon is stronger than a red dragon.

Brain Boost This spell can be cast on any creature and exponentially increases the number of synaptic connections in the mental faculties of the chosen target. The spell is best used to protect a wizard against the brain drain spell.

Brain Drain This spell will play on the mind of the chosen target. The spell induces torment in the brain of the target, causing severe synaptic damage. For weak minded creatures the spell is usually fatal. Damage caused by a brain drain spell may be recoverable by a brain boost spell. This spell can be cast on enemy wizards.

Brown Bear A very strong and skilled animal, the brown bear is even a tough match for a lion. Like the lion the brown bear is very ferocious in attack. The brown bear is not particularly agile and once engaged the bear must usually fight to the death. A brown bear can be killed by the rarer but more powerful grizzly bear.

Bury Allows a wizard to bury up to eight corpses from anywhere on the board. Line of sight is not required. Once buried a dead creature cannot be raised. Therefore, by burying corpses of dragons, vampires, and so on, you can prevent other wizards from raising them. The spell is also useful for clearing space for walls, trees, and meditation chambers.

Centaur The centaur has the head and torso of a man and the abdomen and legs of a horse. A centaur may be ridden by the wizard. The centaur carries a bow which often comes in handy. The centaur is superior to the horse in most respects.

Cloak The cloak spell can be used to place a shroud around any creature on the board including: living, undead, flying, walking, ranged, and wizards. A cloak cannot be applied to inanimate objects, fire, gooey blobs, etc. The spell can be cast on creatures not owned by the caster including sleeping creatures. The spell can be cast anywhere in the world and does not require line of sight. Once cloaked information about the cloaked creature cannot readily be obtained, even by the creature's master. Any cloaked creature becomes at least twice as hard to hit because it is not easily seen by its opponents and this is the main reason for using the cloak. Cloaking an already cloaked creature does nothing extra. The cloak spell can be reversed by the reveal spell. The cloak actually consists of a magical golden ring attached to the cloaked creature.

Command Command increases the ability of a wizard to direct its creations. In particular, creatures will find it easier to escape from conflicts if required to do so.

Crocodile Although the crocodile is stupid, any living creature which approaches one is a bigger fool. The crocodile is a good match for a lion or a bear, having a high endurance. Usually the crocodile can sidle away from danger if desired.

Curse The curse is a highly desirable spell. It is best cast when the screen is full of many enemy creations and your position is reasonably secure. Curse will suck life from all enemy creatures, growths, and even inanimate objects. Sleeping creatures are also drained. Any creature whose life is exhausted by the curse will be killed and points credited to the casting wizard.

Dark Citadel The dark citadel provides a safe haven for the wizard, and a place for meditation. There is a chance of the citadel collapsing at each turn, if this should happen while the wizard is inside a new spell will be granted. It is possible to make use of dark citadels conjured by other wizards provided they are not already occupied. Only a wizard can make use of a citadel. A dark citadel can be destroyed by an extremely determined attacker.

Dark Power Dark power causes the target to be consumed by madness. A high magical resistance is required to escape the effect. Dark power allows the creator three attempts at use. All three can be used on the same creature if desired. Dark power does not require line of sight and works over the entire screen. Dark power cannot be applied to inanimate objects.

Dead Revenge This extremely rare spell allows a wizard to haunt the opposition even after death. When a wizard having dead revenge is killed a generator appears in the place where the wizard was killed. The generator will produce independent creatures.

Dire Wolf A huge variety of the normal wolf. Single wolves are not very useful but if collected into a group of about six or used in conjunction with other species the dire wolf can be very useful.

Eagle The eagle can attack from great distances and move with extreme agility. Most land-ridden creatures have trouble defending an aerial attack by an eagle. Other birds such as the vulture and the falcon can give the eagle a testing fight.

Exorcise An exorcise is used to remove an evil presence but is not always successful. Line of sight is not required. Cannot be applied to inanimate objects. The chosen subject will need mediocre magical resistance to survive.

Falcon Falcons are very swift and can cross the longer axis of the world in just three moves. Because of this incredible range the falcon is most useful for mounting long range aerial assaults. A falcon can only be granted through meditation.

Faun The faun, or satyr as they are sometimes known, is a highly intelligent creature with a high magical resistance. They are rather slow and not particularly skilled in combat but have a fair chance of escaping from a conflict if desired. Unfortunately, once wounded they cannot heal themselves.

Fire Fire is very dangerous once conjoured. Once cast a fire continues to grow until the conjourer is killed or until it is put out by other means. Fires can burn any creature, living or undead, or any wizard not possessing a fire shield. Fires even burn the creatures of the conjourer and can even burn the conjourer. Fires can also burn down castles, citadels and evel walls; although this usually takes considerable time. Any corpses, of course, will also be burnt by the fire. The destructive ability of a fire exceeds that of any creature including dragons and vampires. Fire can be put out by active effort of creatures, each cell of fire has a "strength" comparable to that of a faun or troll.

Fireball Causes the wizard to emit a ball of fire which will cause magical damage. Anything can be shot provided it is in range and line of sight is available. Be careful not to shoot your own creations.

Fire Shield The fire shield can only be used by the wizard. The fire shield gives a wizard immunity from fire (but not from dragon breath, or heat orientated magical weapons like magic bolts). Once cast it is unlikely the fire shield will ever become damaged.

Flood A flood behaves like a fire but tends to be short-lived; that is, a flood will often dissipate within two turns of been cast. Any creature, living or undead, may be drowned as a result of a flood. Flood will also damage creatures belonging to the casting wizard.

Flood Shield A special shield, only available for the wizard, which protects the wizard from drowning in floods. Once a wizard gains a flood shield it is unlikely to ever become damaged.

Generator The generator spell allows a wizard to cast a generator identical in appearance and operation to those used by the independent creatures. This spell is only available by meditation. It is unlikely that you will ever get one of these spells. Like the independent generator, this generator will randomly produce creatures belonging to the casting wizard, but unlike independent creatures, once created the wizard takes responsibility for their movement. Once cast the generator is essentially eternal.

Ghost The ghost is the spirit of a deceased evil human. Ghosts can fly but do not move particularly quickly. Any ghost is best avoided by a living creature but ghosts have a fair chance of being destroyed if attacked by another undead creature.

Giant Beetle The giant beetle is a pesky creature that does a goodjob of hindering an enemy onslaught until more powerful defenders can arrive. A giant beetle has an excellent chance of escaping conflict as it is very agile. Giant beetles are easily killed by even the weakest of creatures.

Giant Rat The giant rat, or super rat, is a quick and evasive creature with minimal intelligence and magical resistance. The giant rat is a danger to orcs, horses, elves, beetles, goblins and ogres but is only a minor hinderance to other creatures.

Goblin No campaign is complete without a goblin. The goblin is among the better fighters of the common bipedal living species. The goblin can fight as well as the ogre but is slight weaker in its defence.

but has the gift of fire breathing and flight which makes it extremely deadly to any creature or wizard that attracts its attention. The golden dragon can kill some of the lesser dragons.

Goey Blob The goey blob is particularly useful spell if you are lucky enough to have one. The goey blob can be conjoured some distance from the wizard provided there is line of sight. The goey blob then grows much like a fire does. No part of the goey blob can be moved like other creatures. Although the goey blob has no intelligence it will never harm its master or any of its masters creatures. However, the goey blob quickly grows over enemy creatures preventing them from moving but not actually killing them. Buried creatures can be recovered by killing the goey blob on them. Rescued creatures will have half their initial life remaining when recovered not matter how much they had when they were buried, so their life on recovery can be more or less than what it was when they were buried. If an enemy wizard succumbs to the blob that wizard dies. The master of the blob cannot kill it by direct combat but only by ranged weapons all other wizards can attack it by both direct combat and ranged combat.

Gorilla Gorilla are a good middle of the road animal and are a worthy adversary for most bipedal living creatures such as trolls, ogres, and goblins. The more violent animals such as the lion and grizzly bear can kill a gorilla. The gorilla has only mediocre intelligence but fights with vigour.

Gray Elf The gray elf is very similar to the more common wood elf but posses accelerated healing ability. They carry the best bows and are able to make accurate shots over a further distance than the Wood Elf.

Green Dragon The green dragon is the weakest species of dragon, having a strength similar to that of a crocodile. Of course, the green dragon is far more useful than the crocodile, as it can move further and more importantly use a breath weapon. The breath weapon consists of chlorine gas and is quite deadly. The dragon will recover from injuries but not as quickly as red and golden dragons do.

Green Ooze Green ooze is very similar to the goey blob as it grows in the same manner. The green ooze cannot be moved in the same way as you move your other creatures. Instead it grows on its own accord. Creatures which succumb to the ooze can be recovered by killing the ooze on the creature concerned.

Grizzly Bear The grizzly bear is an extremely powerful animal capable of killing a lion or a brown bear. Like most aggressive animals the grizzly bear has a low magical resistance.

Gryphon A large flying beat which can be ridden by the wizard who conjoured it. The gryphon has a good stamina and magical resistance but is not particularly manoeurable. The gryphon is not a particularly skilled fighter but can move a considerable distance enabling a mounted wizard to quickly escape from difficult situations.

Harpy The harpy is a cross between a vulture and a female human. Harpies are fast and can mount aerial attacks thereby avoiding direct engagement. Using vulture claws the harpy can rip into the hide of most beats and can outfly would be attackers.

Heal Will give an object a new lease of life. All characteristics of the chosen object will be restored to their initial values. This means any armour on the creature will be lost. Save your heal spells for your wizard or some normally strong creature like a dragon. Heal something when it is about to die.

Horse The horse may be ridden by the wizard and is useful in this regard for carrying the wizard out of a tight spot. The horse, however, best avoid conflicts and magical attack as they are not particularly suited to combat.

Hydra These slow moving multiheaded beasts are very hard to kill and are extremely apt at fighting. They are not particularly stupid either but have great trouble escaping from a conflict once initiated. The hydra is strong enough to hold most undeads at bay for several turns.

Ice Breath Causes a wizard to breath out an icy beam. The icy beam can only be resisted by magic. A creature with insufficient magical resistance will die of hypothermia.

Justice A spell which attempts to make a creature see the evil of its ways. The feedback generated is often enough to kill the target. Can be applied to wizards, does not require line of sight and has infinite range. Three attempts are granted.

Kills are best used on strong undeads such as vampires.

King Cobra The king cobra has very little to recommend for it. Every other creature is capable of killing a king cobra even creatures as low as bats, dire wolves, vultures, fauns, elves, and pegasoo can kill a king cobra in a single blow. The king cobra is also thick, has minimal magical resistance, and is sluggish. Assuming the cobra survives an attack (not very likely) it has a good chance of escaping the conflict.

Lightning An easy spell which causes the wizard to emit a lightning bolt. The bolt can travel up to four squares and has both magical and physical components. Line of sight is required.

Lion The lion is a ferocious beast once provoked and can take considerable punishment from a foe. The lion is amongst the faster of the land-ridden creatures and has above-average intelligence. The lion comes into its own in combat as it is a very proficient attacker with a good ability to escape conflicts when things are not going its way.

Magic Attack This spell can be cast on an enemy creature or wizard and will lower the magical resistance of the target, in extreme cases the target may be killed.

Magic Bolt A plain magical attack which works against any object. If used on a dead creature the corpse will be destroyed. Will attack both the magical resistance and the life force of the chosen target. Requires line of sight. Best used against creatures with low magical resistance.

Magic Bow A magic bow which can only be given to the casting wizard. The bow will allow the wizard to shoot an arrow six square each times the wizard moves. In addition the wizard will be able to attack and shoot undeads. The bow can be used in conjunction with other magical weapons.

Magic Castle The magic castle is functionally equivalent to the dark citadel. All the comments about the dark citadel apply to the magic castle.

Magic Shield A shield which can be used to increase a creatures magical resistance. This quite frequent spell should be applied to your wizard and your strong creatures. The shield remains in force until damaged by magical attack.

Magic Sword A sword for the use of the wizard which increases the wizards combat ability. The sword is magical and enables a wizard to attack undeads. Such swords can be used in conjunction with other magical weapons.

Magic Wings Magic wings give your wizard the ability to fly. The spell will only work on your wizard. Provided the wizard is not engaged or dismounting, flight with the range of an eagle will be possible. Wings are particularly useful for hopping between magic wood trees.

Magic Wood Magic wood is very useful even though it cannot fight like a shadow wood. The biggest boon of the magic wood is that a wizard may use such a tree for meditation. When the tree collapses the wizard occupying the tree at the time is granted a new spell. Unlike castles the trees will not collapse unless occupied. The tree also provides a wizard with shielding from the watchful eyes of the independents. Magic trees can be destroyed by combat and some magical weapons. Any wizard may make use of any magic tree provided it is not already occupied. Each magic wood spell can produce up to eight trees.

Manticore The manticore is one of the most powerful creatures which may be ridden by a wizard. The manticore has the advantage of being able to fire spikes from its tail as well as take part in direct combat. The manticore also has a high magical resistance. The only drawback to the manticore is its small brain.

Mass Morph A powerful spell best cast on an enemy with many creations. In extreme circumstances, you might cast this spell on your own wizard. Mass morph changes all of a wizards creatures into magic trees which can then be used for meditation by any player. No wizard is affected by the spell.

Nuke Nuke allows a wizard to invoke a local nuclear disturbance in a chosen cell. Anything in the cell will be instantly destroyed. The chosen cell will remain radioactive for the duration of the game. Anything trying to enter or shoot into a radioactive cell also dies instantly. A nuke will fail on a wizard, but succeed on a generator. Nukes can only be obtained by meditation.

Orange Jelly Yet another growth. Orange jelly grows very quickly but is correspondingly weak and even an orc has some chance of killing a piece of jelly. Use an orange jelly when you want to quickly clog up an area of the board.

Orc The orc is typical of many exceedingly common species in having very limited abilities. Free orcs band together in tribes but those under a wizard have for-gone their tribes and pledged loyalty to their wizard. Orcs are easily slain and are only of minimal use. Their greatest asset is their frequency.

Orcs Sometimes when an orc is cast he will con a few friends into joining your side. Up to eight orcs in total may be obtained. Although a single orc offers little, a group of eight is very useful for blocking generators or in the early stages of the game.

Pegasus The pegasus is a winged horse and may be ridden by the wizard. The pegasus can be used to carry the wizard to safety or to mount aerial attacks on the enemy. If the pegasus is flown with a manticores or gryphon an effective combat group can be formed.

Plasma Beam Causes the wizard to emit a beam of plasma which will blast everything in its passage as it streaks across the screen in the chosen direction. Simply pick a cell adjacent to the wizard to specify the direction. The caster's own creatures are not immune to the beam.

Platinum Dragon The platinum dragon or Bahamut is the king of the good dragons and is unique. A summons can only be granted through meditation. The platinum dragon has the highest stamina of any creature, can attack as well as a vampire, fly, and make use of a breath weapon. The breath of Bahamut is so strong that it is likely to start an elemental fire, similar to that produced by the Fire spell. Bahamut has exceptional intelligence and self-healing ability. Bahamut, of course, cannot directly kill undeads but the fire breath can be used on undeads.

Pyrohydra The pyrohydra is an extremely lethal variant of the standard hydra. The pyrohydra is able to emit a burst of fire from all of its heads simultaneously. The temperature and destructiveness of this breath exceeds that of all but the strongest dragons. The range of the breath is rather limited. A pyrohydra can only be obtained by meditation and even then is rather unlikely. Most other living creatures should not risk approaching a pyrohydra.

Quench Puts out all fires on the screen, irrespective of the owner. Only available by meditation.

Raise Dead The raise dead spell is a highly sought after spell. The raise dead spell enables a wizard to bring a corpse back from the dead as an undead. Whatever is raised comes back from the dead as if it had just been cast by the wizard except that it will be an undead. Don't be too quick to use your raise dead spell, but don't hold back on it for too long either. The spell has only a short range and requires line of sight.

Recover Boost This spell will increase its targets ability to heal wounds, provided of course the recovery rate is not already at a maximum. The spell is best cast on your wizard or a strong creature such as a hydra or crocodile.

Red Dragon The red dragon is slightly superior to the green dragon in several respects. Like all dragons, a red dragon should not be attacked in an ad hoc manner. If you wish to kill a red dragon you are going to need some real muscle. The red dragon has medium magical resistance.

Replicate Make a clone of the chosen creature. The clone will belong to the same player as the original, so you best replicate one of your own creatures. The copy is identical in every respect. Replicate will fail if there is no empty space adjacent to the creature to be duplicated.

Reveal Reveal is the opposite of cloak. Using reveal on a non-cloaked creature does nothing, and is a waste of the spell. Using reveal on a cloaked creature will destroy the magic ring rendering the creature visible again. Once revealed the creature can be attacked as per normal. Spell works anywhere and does not require line of sight.

Sanctuary Allows a wizard to recover quicker from any wounds received. The effect remains in force for the duration of the battle.

wood the shadow wood cannot be used for meditation by a wizard. Each cast allows for six trees to be conjoured up to twelve cells away from the wizard.

Shape Changer This special creature has no single form, but can appear as a lion, a bear, or a crocodile. The abilities of the shape changer slightly exceed those of its constituent forms. The shape changer is only available by meditation.

Skeleton The skeleton is a magically animated human skeleton having no intelligence or magical resistance and is the weakest undead. Skeletons are easily conjoured so they are a very common undead. The skeleton is useful for holding living creatures at bay but quickly dies when attacked by any other type of undead.

Sleep The sleep spell as the name suggests can be used to put a creature to sleep. Sleep does not work on wizards or on growths like gooey blobs. Once asleep a creature cannot be moved or attack. It is possible to attacking sleeping creatures. The spell can be reversed by a wake spell. The pair sleep-wake presents an alternative to using a subversion spell, but be aware that any wizard can use either spell. Sleep spells are best reserved for use on strong opponents. The sleep state is identical to that induced on creatures when a wizard dies.

Slow Works over the entire screen, does not require line of sight. The target will only be able to move a single cell at a time. Does not affect ranged combat.

Spectre The spectre is a powerful undead human having an existence in its own right, unlike skeletons and zombies which are maintained continuously by the wizard. The spectre has abilities comparable to a wraith.

Speed Works over the entire screen, does not require line of sight. The target will only be able to move an incredible ten cells per turn. Does not affect ranged combat.

Standard Wall This is the most common type of wall in practice. Like the weak wall this wall is vulnerable to magic attacks, but has a stronger constituency making it less vulnerable to combat attack. Four pieces can be cast per spell over a limited distance. Line of sight is required.

Stone Giant Capable of killing fauns, elves, horses and giant rats in a single blow, the stone giant is a truly awesome creature. Stone giants have been known to kill lesser dragons and even once a pyrohydra. What's more the stone giant is a brilliant defender. Once in battle, however, the giant must fight to the death; but usually the giant will emerge as the victor.

Strong Wall This kind of wall is only available through meditation. Strong wall is superior to weak wall and standard wall as it has inbuilt magical resistance, making it much harder to destroy. Only two pieces are granted per spell.

Subversion Subversion is an attempt to convince an enemy creature that it interests might be better served if it had allegiance to your wizard. The spell might or might not succeed. More intelligent creatures are less likely to change sides than intelligent creatures. You will never be able to convince another wizard to join your side or any creature such a wizard might be riding. Subversion can be attempted on any creature (including sleeping creatures but not on dead creatures). The spell requires line of sight. If the spell fails, nothing happens to either party. If the spell succeeds, the target of the spell immediately swaps to your side and will no longer respond to the commands of its previous leader.

Tempest A tempest is an air elemental which moves at its own volition. Inanimate objects are not affected by a tempest. Any creature falling into a tempest will be propelled to a new random location (which is sometimes desirable, but usually best avoided). There is a small chance that the transported creature will not survive the ordeal.

Troll The troll has an uncanny ability for being able to heal its wounds very quickly but is a rather stupid creature. Trolls enjoy a good fight, but are more suitable as accomplices to a stronger creature such as a stone giant in a major offensive.

Turmoil Turmoil affects every square in the world. Every cell is randomly transposed to a new location. The result is very unpredictable and may or may not improve your situation. Often useful when attacking a well fortified opponent. This spell is only available through meditation.

Vampire The vampire is amongst the most feared of all creatures, as a species it rains supreme amongst the undead. The vampire has exceptional intelligence, excellent fighting ability and a good magical resistance as well as endurance. Vampires are known to have killed golden dragons in five attacks. The chances of a vampire being killed in any direct combat are minimal unless the vampire is attacked by other vampires. Usually a vampire is only destroyed by magical means. When confronted with a vampire most wizards will have to go on the defensive and try not to attract attention.

Vengeance Vengeance is used to seek revenge against an opponent. The spell works in the same way as an exorcise spell. The chosen target is subject to a magical attack. Line of sight is not required.

Vulture The vulture is easily cast and unlike most creatures can be cast up to two squares away from the wizard, provided there is line of sight. The vulture easily escapes from conflict and has good range.

Wake The wake spell is used to reverse the effect of the sleep spell or to wake creatures which went to sleep when a wizard died. Once woken a creature will be under the allegiance of the wizard who casted the wake spell, irrespective of how the creature got put to sleep. Quickly make use of this spell when the chance arises as sleeping creature tend to decay.

Wasp Nest A wasp nest is pretty self-explanatory; any enemy creature approaching a wasp nest will be automatically attacked. Once you cast a wasp nest you can forget about it, since you cannot move it and it attacks automatically. It will attack all adjacent squares simultaneously. The wasps are friendly towards the creations of its owner.

Weak Wall Despite its name, weak wall, is a formidable obstacle for an opponent to overcome. It is extremely useful for slowing the passage of fire, or blocking the growth of gooey blob. The name only implies that this wall is weaker than standard wall or strong wall. Most magical attacks will eliminate a weak wall (such as a magic bolt). The wall can also be destroyed by combat but this will usually take several rounds. For each weak wall spell six pieces of wall may be cast anywhere on the screen.

White Dragon White dragons normally dwell only in cold regions. Meditation may allow a wizard to call upon a white dragon. The white dragon is very strong but slower than other dragons due to its lower metabolic rate. The white dragon can freeze other species to death with a breath weapon which is more effective than the breath weapons of the red and green dragons.

Wight The wight is an evil undead and falls into the middle of the undeads in terms of overall ability. They can be beaten by wraiths, ghosts and vampires but can deal to skeletons and zombies.

Wolverine A ferious mutant wolf that loves killing and is very good at it. Wolverines normally shun wizards and can only be obtained through meditation. Apart from its superior fighting ability the wolverine is much the same as the dire wolf.

Wood Elf Like all elves the wood elf has a pure heart giving them a high magical resistance (particularly from the darker kinds of magic). Wood elves are physically weak and should best avoid direct combat. Wood elves are, however, a great boon as they are highly skilled with a bow. Every wood elf comes complete with an ash bow and a full quiver of arrows. The ability of the wood elf is slightly exceeded by their rarer cousin the gray elf.

Wraith The wraith is closely related to the wight but is superior in several respects. Wraiths have exceptional intelligence and excellent magical resistance. The wraith can outrun most lesser undeads but rarely has the need to; since the wraith is a proficient killer.

X ray Blast an object with a high dosage of X-rays. Weak creatures will die instantly, other creatures might survive a few blasts but will be weakened. Line of sight is required. Can be used on inanimate objects.

Zombie The zombie is a magically animated corpse and is only slightly more sophisticated than a skeleton. Like the skeleton the zombie is very effective at blocking the progress of land-ridden living creatures. Other undeads, however, can quickly dispose of the zombie.

4.1 Legalties

The executable of chaos is in the public domain and may be freely distributed. The source code and levels are copyright Sean A. Irvine and may not be modified without the author's permission.

By paying a registration fee of \$20 US (or the equivalent in some other useful currency) or \$20 NZ (for a New Zealand address) you will receive the latest version of the game, well documented source code, and a level generator. Those who pay the registration will have a partial waiver of the source code copyright and will be permitted to alter the source code. Please make cheques payable to Sean Irvine. My address is given at the end of the instructions.

Chaos was written using SAS C on an Amiga 500 with 1MB of memory.

4.2 Installation

Chaos will work under at least Workbench 1.3 and Workbench 2.0 and should work on anything subsequent. It will, however, only work correctly on PAL systems. Chaos makes use of `narrator.device` and `reqtools.library`.⁵ The only other files required are the executable `chaos` and the data file `pool.ssc` both of which must reside in the current directory when Chaos is started. The program cannot be started from the Workbench. Get a CLI and change to the directory containing `chaos` and just type `chaos`.

The archive contains some of the levels. These can be loaded with the Load option and experimented with. Eventually the 'E' will be the exit to the next level, but it is not currently supported.

5 Future Additions

Here is a list of features that may be added in the future:

- More spells (send me your favourite ideas, and pictures of wanted creatures).
- Computer controlled wizards.
- More levels.
- More flexibility in game options, such as, number of spells at the start of the game, allowing players' to buy spells, and so on.

6 Known Bugs

Chaos has been extensively tested with enforcer and in my experience does nothing nasty. However, there are a few less serious bugs within the game which will be fixed in the future.

- Currently the computer controlled wizards are unable to mount. This makes them rather easy targets.
- The computer controlled wizards spell selection leaves a lot to be desired.
- Human wizards cannot mount undead creatures.
- All the code for handling levels is not finished.
- A single player game sometimes comes to an end for no apparent reason (actually I know why this happens, I just haven't fixed it yet).

⁵ReqTools is copyright Nico François and is available on aminet.

- Several other bugs I haven't found yet.

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