

Mankind Worlds

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Mankind Worlds Design Document

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Section I: Introduction

what is Mankind Worlds

Mankind Worlds is a science/fiction based build up strategy game set in a Massive Multiplayer Online universe which takes place in a not too far future. The player does start out as a settler from one of two empires. As such he can either use the offered resources to get up his own base and mining facilities and sell those to the empire or start working for the empire directly by doing various missions to earn money.

The progression does take the player through various different places near and far away from the protected imperial area to mine resources from other planets, gas clouds and asteroids and transport goods to different stations. The earned money gets then invested into research to get better and more effective structures and a city to get better educated people to work more effectively on all kinds of structures and ships.

While doing all those tasks, the player does meet other players and interact with them to share resources and ships or even cooperate to build up a joint venture. He does also meet not so nice players that might try to rob him or destroy his buildings and ships... so protection is an important factor when settling away from the imperial areas where imperial fleets are only patrolling rarely or even not at all. The player can join together with others to share nearly everything within the game and organize them self more effectively.

As an interesting aspect, players and guilds can join together with the empire and do imperial tasks to raise their honour with it. The more honoured they are at the empire the more advantages they will get from it, like cheaper prices when buying various stuff and access to imperial technologies and missions.

The game itself is based on the human characteristic of "I want to be something special". Players can focus on exploring space and sell stellar maps or just concentrate on mining and building up a big ore and material trade facility. They may focus on player support duties by selling their service to protect transports through the galaxy, just protect bases and installations or just by building for others.

They may also focus on piracy and settle down on the outer regions where the empire is only present rarely or even not at all. They may build up their own empire no matter what aim they have and once may just lay back and look at their empire, watching their ships moving and facilities producing automatically.

Mankind Worlds does take over the successful conception of freedom within a game from Mankind 1. Even if several technologies and knowledge might lock out others so you can't earn and control everything you can basically switch from a pirate to a trader and don't need to reset and start over again. Social interaction is getting important and basically only time and money is a factor to get from a pirate to a trader for example. Anyway, honour and respect within the game and its community is something you can only earn based on your actions and not with money.

Mankind Worlds has its focus on playing the fun parts of the game and not doing micro management all way long. So while players will spend a good portion of their game life to build up and organize their fleets and structures, most parts can be automatized so at the end they can focus on the things they really want to do and don't have to bother that much on how to get the money in to do it.

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The game is build up as a fully dynamic play ground where ships, vehicles and structures (even imperial bases) can be destroyed if the fire power and tactic is good enough. Asteroids and other space phenomenon's are moving (or are just static) through the galaxy and affecting players on all kinds.

During continuous story telling the universe will change and shift controlled territories between the empire and players as well as with the enemy... where every player can claim and protect any area of the space... it's a play ground that gets dynamically created by the players and does continuously change to always offer a new and in some kind unique playing experience.

a new concept to the gaming industry

Mankind is unique in its kind. Why? You can be whatever you want to be and you have a lot of freedom to develop your being. It's the freedom to do and become anything you want, you have almost no limits. The freedom to spread around and develop yourself as you like and be able to change your desires if you want at any time, without being forced to start from scratch again. It's the freedom to act like a pirate one day and be a trader the other. All this freedom made players thinking more about their character and their role in Mankind... made them creative and inspired them. That's why the community is very strong in Mankind 1.

It's a contrary game concept than traditional RPG games offer, where you are forced to slip into a fixed role and never be able to really change it afterwards (paying in-game money to newly select levelled and already chosen abilities is a partial restart only because for example a shaman will always remain a shaman and will never be able to get a tank).

Additionally the aim is to generate a new, never seen before, dynamic server and client architecture... moving away from the static world design to allow players to actively interact and specially affect the game world they are playing and which they are creating and filling with their life. Players dig into the game world and interact with it – they penetrate it and they easily forget their real being. They can spend hours just on management, interaction and meetings with other players– they slip into a role of intergalactic personality and decide themselves if they either want to move on the upper wave of Mankind's society or want to become a deep core member of the entire galaxy.

1. traditional RPG games - role play/abilities

At any classic RPG game, whether online or not, you have to decide already at the beginning what type of character you want to play... giving you it's related abilities and ground knowledge to develop your character during game play to a higher level.

Mankind does offer you the ability to change your desire at any time. You might change from a pirate to a trader and you don't need to restart from scratch again. Basically only time and money does limit you on such change.

2. limitations

The online game EVE – The Second Genesis, that got released Q1 of 2003, initially was a game close to Mankind's original concept in several kinds. It does offer a dynamic economy – an important aspect of today's online games; it does provide basic research and does allow manufacturing of modules and ships.

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Nevertheless, there is one major difference between EVE and Mankind: it does limit your character as it is a RPG (role playing game) and no traditional build up strategy game. Even if you can create several characters with one account and even if you can own dozens of ships with each of your characters, you can only control one ship at a time. This does limit your single player abilities dramatically. Additionally progression got expanded to so called "instances" where NPC battles and experience gets created by a dungeon instance for a group of players only.

Mankind 1 does offer a C&C (Command & Conquer – game series initially developed by Westwood Studios) style game play... allowing you to control an almost unlimited amount of units at a time to make it possible to defend yourself also against several enemies as not only weapon power and ships shield and size is the key but also tactical aspects generated by the number of ships you can control at once and their equipment as well as the environment you battle. You are not forced to play in a large team with others and the environment does offer a lot of tactical aspects as well. Additionally, Mankind is one big playground without instances. You can basically move everywhere at any time... alone or with friends... no part of the world gets locked for a specific group of players only.

3. permanent appearance

By time, online games producers did starting to follow Mankind's game style to allow players to build stations and buildings to be also present at the universe when logging off – but only for high level/experienced players with enough money. They say this is some kind of ultimate goal for the game – a possibility you already start with at Mankind.

Players want to be present at the universe – all the time – to show their power and let the game support them by automatic sales and player economy features as well as sharing with friends and guild mates.

The MMORPG World of Warcraft (aka WoW, developed by Blizzard Entertainment) is a good example on how to create a one way game. While Mankind does also focus on player interaction and socialization, WoW does continuously postpone their housing feature, reducing interaction between players to a chat channel and battles only. A very important aspect of players is to represent them selves, to visually show their power and work and take long term friendships. Mankind does try to support all this on an advanced level to make sure players can have a virtual live and fun with others.

Section II: Game Mechanics

overview

1. different products for a complex playground

Mankind Worlds gets defined as one of at least two game products cooperating together. One is designed to be a real-time build up strategy war game like Mankind 1 with much improved functionality and game play to put in as much freedom and strategy as possible: Mankind Worlds

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The second product does seamless connect to the first one, even if both can exist and played without the other one and independently. It's designed to enhance the city aspect of Mankind and act like SimCity from EA: Mankind Colony

A direct connection gets established between those two products within one game world so while Mankind Worlds players just build rather simple cities with limited control on produced settlers, resources and city growth, players from Mankind Colony can expand this to have full control over their city, high detailed graphics and do not simply place city buildings but can see them growing, can build advanced city infrastructure, deal with habitants and their personal wishes and more... it's a SimCity inside Mankind.

The connection between both products gets done through the server cluster, where Mankind Worlds players can see cities from Mankind Colony players and buy produced and delivered resources as well as put demand orders.

A third Mankind product idea was pulled in as Mankind Admiral but because of the large and major diplomacy and guild aspect of Mankind Worlds, such features should rather be put into a Mankind Worlds expansion pack and seen as enhanced game feature than a separated game. It does give more overall features to organize not only guilds but also alliances between guilds and even also alliances between alliances. To provide tools to organize large player groups, setup rules and ceasefire or trade contracts, manage several guilds at once, manage guild contacts and more.

2. Mankind messenger – never be outside

A Mankind messenger comes along with Mankind Worlds. It's a simple messenger system to allow players to chat within the game like they were connected with the game client. The purpose is to take this messenger with you any time. It does consist only about a few files all within one folder and no required installation so it can run as stand-alone software, which you can easily take with you to work, school or university. It easily fits to a memory stick and does allow players to communicate with their friends and guild members even if they are away... to plan battles, building strategies or what else they want.

While connected through the messenger, other players within the game do see those normally at their contact list but with a special messenger icon in front to mark them as „outside“.

As an additional feature this messenger might be able to parse (read only) status information from players units so he can check productions and constructions and also cargo spaces and such. The purpose is to check status and progress from outside and keep updated on your fleets. However, the Mankind messenger does never get (not even partial) a "replacement" of the game client so no options to do any orders and changes to anything within the game.

The Mankind messenger just does help you to stay updated while moving, at work, school or university for example.

3. Mankind visitors pass

Every person around the world can freely register for a so called "visitor account", which is completely free of charge and does allow to login with a special visitor game

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client (can be freely downloaded from the official). This way, everybody can login to the world of Mankind and watch its residents in realtime. Battles, trading, movement, build-up and much more – everything in realtime. Automatic camera plots to move and rotate from one point to another without requiring doing any interaction with the game client does not only provide a great endless running realtime graphic demo but can also serve als screensaver or never ending automatic advertisement for personal usage, company show presentations, permanent “look inside” and much more.

In general it is a very light weighted regular game client which got all “interaction points” removed. Those got replaced by an intelligent tracking functionality to automatically move the camera automatically through all imperial places. This way, an endless loop gets created and as a result, an endless realtime demonstration. Additionally, the user can view a list of all target locations and move to them instantly if he wants. The server is able to dynamically expand (add or remove locations) this list based on events that happen within the game universe.

game environment

One of the key features of Mankind Worlds is its realism. Based on real world aspects and physics the game gets build up in a similar way.

Most parts of current online worlds are static – means that as a player you do not have any direct influence on the world you are playing in. Moreover, the world does also not directly affect you with any consequences. The world is only driven by players and their actions... making a “far outside region” very secure and silent (maybe even boring from this point of view) when no players are online there.

Mankind Worlds is trying to overcome this limitation by offering a realistic and dynamic game environment that is not only moving as evolution is changing but also can change based on actions players are doing. The “one playground” aspect is a major advantage and does allow advanced role-play from players’ as well as from the publisher. An own team of skilled people is just there to monitor the universe, player actions and to trigger imperial builds, ships and more. It’s an advanced playground which is constantly progressing.

1. movement, 3d concept

As a complete 3d game environment, all movements are set to be in 3d as well. Free camera zoom in and out up to the complete universe overview level is possible through keyboard keys and mouse.

Movement of units is set as a one click task... combining it with a keyboard key at the same time does allow real-time 3d movements. So for example just using the mouse and clicking the left mouse button does give orders corresponding to a 2d x- and y-axis level... and does not include any z-axis change. Holding down the Ctrl key on your keyboard and moving your mouse (and clicking the left mouse button) does include x-, y- and z-axis and allow a full 3d movement wherever you want.

2. movement, units

By default any unit (ship, structure, tank or whatever a player can directly control) has an auto-pilot enabled. This does mean that you can’t crash your ships into each

other as automatic distance checks do prevent such. However, you can manually disable this auto-pilot for each moveable unit to allow full control on any movement – but also to possibly crash and destroy/damage other units.

2.1 unit grouping, formations

Units can get grouped together with advanced grouping and selection features. Additionally, each group can get setup with basic options like formations where all units within will try to always keep the selected formation. Besides this, it can get setup if a group of units should automatically setup it's speed based on the slowest unit (to keep all together all the time) or they can fly individually. Basic units commands like follow any friendly or neutral options are available like regular units and multi-select orders.

3. environment

The universe is defined with large and lot of abnormalities. While there are large areas where there is just space without any effects there might be gas clouds that effect your radar for example, or areas that increase or decrease your ship mass, that pull you to a specific direction, areas that are damaging your hull or taking energy from your ship away so you have less available, areas that are highly energy loaded and might overload your ship systems and more.

Basically, each value of any unit within the game world can be affected by the environment.

4. different views / maps

Several different maps and map-types allow a good overview and control over all units and the environment.

4.1 planet maps

4.1.1 terrain

This map is typically a 2d map representing the structure of the planet like a static satellite photo.

The planet map gets available as soon as a player reached the planet once with his radar. However, possible structures present on planets surface are always covered through games fog of war and can only be viewed within radar ranges.

4.1.2 terrain - layers

An additional switch does overlay a 2d colored image representing the highs and lows of the terrain with different lines and color shading.

4.1.3 resources

This map is typically a 3d map with basic surface structure and colored resource spots in 3d.

Once a player reached a planet he can use a special resource scanning device – either directly from within orbit (high tech) or with a ship moving around on the planet. Once the device got active it does scan within a specific range and depth and does record resources present. Some resources might not get detected by lower technology resource scanners as they have either a signature that is unknown to the scanner

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or are deeper in the ground than the scanner can look into.

This resource map is specific for every player and planet and gets stored within players database so if a player does only scan a few spots he does also only see resources there – the rest remains unknown and covered.

As an advanced feature, those resource map data can be transferred to data storage crystals with a specific capacity and sold/given to other players, which can then analyze and read them through a specific period of time and then can add those data to their own resource map library.

4.1.4 tactical

As an advanced feature, the planetary terrain map contains a tactical map that does only show tactical information and all units and structures represented as symbols and basic 3d objects. A battle group leader might set way points, marks or text on it and broadcast it to all group or battle raid members so they can see those as well.

4.2 system map

The system map is typically 3d. It is not mandatory a special system map as 3d movement is freely available.

4.2.1 standard

The standard universe and system map is like a 3d environment. Objects are represented in 3d depending on their distance to the camera and marked with specific icons for friends, allies and enemies.

4.2.2 tactical

The system center is represented as circle system with measure numbers. All objects within are represented as dots and lines from the 3d depth to the 2d center disc. Like the tactical planet map it does only show tactical information and all units and structures represented as symbols and basic 3d objects. A battle group leader might set way points, marks or text on it.

4.3 universe map

The universe map does represent the whole universe in 3d with all its systems and claimed territories. Systems gets displayed as basic structures to see how many planets and suns are present along with system and region names and sector naming scheme.

Unexplored systems are covered through a fog and even might all missing at the players map until he does reach it with one of his scanners.

As an advanced feature, those map data can be transferred to data storage crystals with a specific capacity and sold/given to other players, which can then analyze and read them through a specific period of time and then can add those data to their own universe map library.

5. damage and aging – nothing gets build for eternity

5.1 damage types

Different weapons are causing different types of damage... doing more or less damage. Moreover, each weapon might either do a direct hit or not... where a direct hit does do the biggest damage of course.

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Not to forget explosion and other area damage at surrounding objects.

Additionally, space phenomenons might damage units and structures as well...

5.2 aging

Each structure, building and module, so let's say every player driven object in Mankind Worlds, has aging indexes.

The traditional aging system does consist of three values :

- ❖ durability
- ❖ state (damage)
- ❖ (quality)

The 1st index (durability) is an overall aging index and typically gets noted as %. It is moving down slowly and gets reduced based on the actions happening to the related object. Once it reached 0, the object gets destroyed... means it decomposes. This index can't be increased again but can only get smaller.

The 2nd index (state) is very similar to the 1st one but is a direct aging index and typically gets noted as %. This does mean that it is as well moving down slowly and gets reduced based on the actions happening to the related object but much faster. Moreover, it can be increased again as it does directly reflect the damage of the object. So while a low state index might reduce usability of the object and also might lead to malfunctions you can repair the object to get this index back to 100%.

The 3rd index is directly related to quality of the object. Typically, the higher the quality the better the object does function and the more effective it is. While a quality index is an additional value to take care of „good quality“ it does not mandatory means that the object is more effective except for clothing so it gets suggested to forget this 3rd aging index completely. Instead, the durability index will directly reflect the quality as we state that better quality is in direct relation to the life span of any device or object. This does also mean to move away from a % value for this index and can have numbers greater than 100. To make the scheme more transparently for customers, a direct time based value can be used to display the calculated live span at given state (activated or deactivated) of the object in in-game time.

Example:

Let's say you have a base structure with an overall aging index (durability) of 2.29 E⁸ (= 10 years) and a direct aging index (state) of 0.07 (= 7 %).

So the direct aging index says, that you have about 7% left of your base integrity... and once it reaches 0 % the base will shut down automatically and you can no longer use it. So you need to invest time, money and resources along with a builder unit to repair your base. Besides this... now the overall aging index is even more important. You can't change this overall index in any way. This index simply says that, once it reached 0, you can't do anymore repairs to your base – the structure is too old then.

So each and every unit in Mankind has a limited life time... which will also greatly affect market and traders (prices).

To make this aging system even more interesting, each usage of the related structure does directly affect the overall and direct index.

So for example:

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- ❖ the more (and also the more often) damage a building or ship structure gets, the faster the overall and direct aging index will decrease
- ❖ the more you use a module, the faster it's overall and direct aging index will decrease
- ❖ ... and so on

Moreover, as a special side effect of aging (to force players to rather park their not required ships than to leave them in space), any ship or vehicle does age faster when standing outside a base or hangar.

6. interactive unit design – modules

As a basic concept description, each construction does start with a chassis. Players can then build their interior as available and must fit each construction with an energy- and computer-core first. Then, modules and outer cases can be added. Various blueprints are available to make this more easily at the beginning and for "standard" ships. Moreover, the empire does sell such "standard" ship configurations aswell on a cheap price.

The type and tech level of each chassis sets the basic values it does offer:

- ❖ hull strength
- ❖ amount of energy available without any energy core upgrade (through modules)
- ❖ amount of CPU power available without any computer core upgrade (through modules)
- ❖ amount of module slots available (can't be changed)
- ❖ for modules it might be interesting to do it similar to EVE – with low, mid and high energy slots...
- ❖ ...or build it up similar to Tetris (the game): you have 2x4 module slots available, but there are modules that not simply require 3 slots but 3 slots forming an L...

Anyway, as this might get into massive complexity, an advanced internal discussion should get held on how "complex" this should get and moreover on how this system should work and presented for player fitting. Allowing players to setup and change every major aspect of ship and structure design should be aimed to maximize possible ways of advancement and gameplay.

Each structure has at least one basic info window to show equipped modules, required energy and various status information.

Moreover, each unit has a "power down/on" switch to allow you to individually completely power any unit and module down... so it does no longer consume any energy and stop all actions... all lights will go dark... this way a ship might get completely dark on 3d visual view.

6.1 energy crystals

The basic energy crystals that are equipped by default with any ship structure are working for a unlimited lifetime. They are constantly reloaded by using outside sun winds and very small space particles.

These crystals can only provide energy up to a special amount. As there are also even more energy consuming modules available, there are special high energy crystals available to equip as a module – to provide even more energy. They are working similar to the delizium crystals in Star Trek. Even if they are constantly reloaded like the normal crystals, this is not enough so their energy grid is

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slowly degrading. This means that for a special amount of time (based on the energy usage and so on) the provided energy crystal grid is stable and does provide full energy. Once it drops too low, the grid does collapse and no energy is provided anymore... or maybe with fast decreasing amount – up to 0.

There are special modules available... they can be loaded up with high energy (quantum based) particles and then by moving close enough to another ship with such a high energy crystal, this module can recharge it by directly transferring energy to the target ship.

So if you use such crystals, you can either reload them directly at a base or by another ship with such a module equipped. The idea behind is that you must provide high tech ships with such energy – like fuel – on the battlefield if the fight takes too long and also give high tech ships no unlimited power and jump range.

Additionally there might be cheaper one-time crystals – cheap to produce but also with an easy energy grid that can't get reloaded anymore.

- 6.2 Each module has a "power down/on" switch – accessible through the related unit interface when listing all available modules. This does allow you to power down each module individually so you can probably use another one instead... as there might be cases where you can fit better modules (enough module space available) but do not have enough energy available to run them all at the same time. So you need to power down one module to have enough energy available to power up another one.

- 6.3 Different like at Mankind 1, there are no rail guns available... as this is not realistic for space based games... moreover unrealistic for future weapons.

- 6.4 direction limits

As seen at various space games (like at DarkSpace) each weapon type has a special range and possible direction to shoot. For example the ship then requires turning around to shoot one weapon as it can only fire it from direct front direction (straight forward +- 25°).

Some weapons can be fired from around 180° and some from 360°. This makes it important to have slots to put weapons on each side of a unit (front, back, right, left).

Moreover, there might be shield modules that only additionally strengthen a part of the overall ships shield – like at back shield only.

- 6.5 energy weapons – direct damage

There are various energy weapons available... ranging from one ray up to multiple ray lasers, impulse canons and other similar stuff...

- 6.6 energy weapons – indirect damage

Talking about weapons that do indirect damage means for example an EMP weapon. It does require a lot of energy and long to load it up... but once it got fired, it does disrupt all ships in range... making all ships and structures in affected range to shut down for a special amount of time... even own and friendly ships (no energy = no shield).

There might be special shield upgrades available to protect from EMP... or to

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make an EMP hit only randomly affect a ship (for example with only 20% probability) with a special module equipped.

As this weapon is very slow at its fire cycle, very heavy and requires a lot of energy it is reserved for DCA/Base only... or maybe for best and biggest high tech ships too, that can provide this large amount of energy.

6.7 torpedoes, mines (bombs)

You can equip your ship with various torpedoes and mines (bomb) modules. The major difference between them and the above energy weapons is that you need to load torpedoes and bombs like ammunition. They are getting loaded into normal cargo bays like resources or ore – in containers containing a special amount of torpedoes or mines.

Mines can only be dropped at the current position of the ship or vehicle... making them explode if any object comes within a special range. Torpedoes can be fired like any other weapon – if there is still at least one loaded at cargo bay.

Different types of terpedos doing different types of damage are available aswell as different types of sensors to allow the torpedo to find it's told target.

6.8 shield

Each ship, base and DCA structure can be equipped with a shield module.

For ships, several shield modules are available to directly apply around the ships hull... to protect the ship.

For structures and bases also larger shield modules are available to not only protect the related building but, as high tech stuff, to also protect surrounding units... it's like an invisible protection cloche.

6.9 (jump) drive

There are various drives and jump drives available to equip with your ship. A normal drive requires a special amount of energy to operate and does provide a specific maximal speed.

Jump drives are very expensive and only available as higher tech. They allow a ship to open a hyperspace tunnel to a first selected target point. Basic hyper jump drives allow a single ship to move it self through. Better hyper jump drives may already open larger hyperspace tunnels that remain for a special amount of time and allow moving several ships through.

Depending on the range the ship jumped (there is a max. range for each jump drive) the jump drive needs to recharge a special amount of time to be able to jump again. So if you can jump max. 500 parsecs for example but only jump 231 parsecs, you could generally jump immediately max. 269 parsecs again or need to wait for more recharge to be able to jump again more far.

Moreover, each jump drive needs a short period of time just after the jump got completed to cool down again – within that time no jump is possible anyway.

If a ship does not have a hyper jump drive available, it needs to travel with normal speed at normal space... or move to one of the provided big hyper jump gates from the empire (or players)... where each jump does cost a small amount of money, depending on ships size... or is maybe even free for friends of the empire.

6.10 energy and CPU power

Similar to EVE, each module does require a special amount of CPU power from

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the local computer core to be able to operate it and also a special amount of energy.

Each chassis has a build in computer and energy crystal to provide a special amount of both by default.

By equipping related upgrades, both can be raised as needed – but taking module space as every normal module of course.

Also, by shutting a module down, required computer CPU and energy power is released and is then available for other modules.

6.11 drone bays

One of the most interesting enhancements for ships in Mankind Worlds is the availability of drone bays, even if they require a lot of module slots.

6.11.1 combat drones

You can buy or produce combat drones and load them into a bay. At any battle, those drones can then start to automatically attack the enemy ships. They are equipped with a basic AI to intelligently attack your opponent.

Various combat drones are available with various hull, shield and weapon power... along with different AI.

6.11.2 repair robots

They are working like combat drones, but can be send to any ship to repair its hull and modules up to a special value if the source ship has loaded required resources.

6.12 cloaking

There are related modules available for ships and structures.

Depending to their tech level they are ranging from cloaking the related ship/structure only up to cloaking everything within a special range... so it is working like the shield modules but does hide everything inside.

Enhanced scanners might overcome lower cloaking devices anyway.

6.13 unit capturing

A special module can be loaded with troops (get them for cities with a special building). Then, if any enemy ship has 0% shield left and the ship with this module is close enough, it can transfer his troops onto it and take over the enemy ship.

As a special feature, you can not only capture ships but also any building. Once those buildings got captured, all stuff inside belongs to the one that captured the building and a part of troops are moving back to the original ship, some remain to control the just captured unit... while some defending soldiers might desert and move over to you.

6.14 resource scanning

Like the starting builder already has equipped by default, there are special modules available to scan resource distributions on a planet or on asteroids.

More advanced modules are able to scan deeper into the ground to find also deepest resources.

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6.15 mining laser

To mine asteroids, mining lasers are available. They only vary in mining speed and maybe type of resource they can mine.

6.16 watching sensor array

They are logging each player coming and leaving their sensor range so players have a list of players violating "their" space. Also this sensor array is sending you automatically a message and alerting the player if any enemy got detected within range... if the player does wish so.

6.17 structure movement

As a high tech module, a kind of tractor beam is available. This module does require a lot of energy – the larger the object, the larger the energy required. Moreover, the ship must have an adequate engine – the larger the object, the larger the engine strength required.

Nevertheless, if you have what is required you can move any space structure after it got started to build or even got already finished (if it is still in progress of getting build, you need to interrupt building before being able to move it of course).

This makes it possible for high end players to re-arrange their settlements afterwards or transport captures stuff.

As a smaller alternativ ships might have a tractor beam equipped to move (small) ships to other locations or even within any base.

6.18 scanners

Various types of scanners are available that differ between their range and type of things they can detect. Moreover, better scanners can not be disturbed that easily and might detect cloaked units aswell.

7. galactic universe – a dynamic game environment

The basic structure of Mankind Worlds universe is similar to the one of Mankind 1 but does offer more dynamics and a more realistic environment.

The environment is "flat" and is divided into cubes and sectors. The entire universe is one cube high and multiple cubes wide - like in Mankind 1. Each cube does contain various solar systems with planets and suns.

Probably there are solar systems without any sun, just only with a few "planet like" objects... rather asteroids than planets – so not each system must mandatory contain a sun... so planets inside a system must not inescapably rotate around something.

One of the biggest changes in Mankind Worlds is generated by using server clustering for requesting environment data and pre-caching. This does result in a free movement within the entire universe... no need to change environment and no waiting times to load environment data. Objects are getting rendered and requested from server based on their distance to the camera... at a special distance objects get hidden, no data requested.

Another major change resulting from the free movement is that you can simply move out of any system into free space. So you can easily travel from one system to another without any hyperspace engine – just normally by flying standard speed.

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However, this might take some time to reach the next planets.

On one side this does make hiding in deep space much easier, on the other side, scanning devices and drones makes it more easily to scan the universe for other players. Of course, devices to scramble and disturb those scanning signals are present aswell.

7.1 Space

Space is free like in MK 1 but does contain various special stuff :

- 7.1.1 ship and station wrecks (optical aspect and to loot them to get special stuff)
- 7.1.2 asteroids and asteroid belts, comets
asteroid belts, comets and other debris is moving slowly through the universe... and can damage your space stations and ships. When colliding with a planet it may also damage ground stuff. Each player might build advanced in-space radar systems to get automatically warned if any space phenomenon is getting within a specified range of the radar.
- 7.1.3 big clouds and cloud-clusters to hide ships within
Means to have various kinds of gas clouds slowly moving (or fixed) through the entire galaxy. Same for other space phenomena. For example you can "hide" ships within a nebular (scanners of other ships out- and inside will get scrambled so they only see flickering radar spots... not to determine if it is a real or a ghost ship. Better modules for ships are offering better radar systems to make this better or even be able to still work fine at special types of gas clouds.
- 7.1.4 space phenomena like exploding stars and so on
- 7.1.5 space phenomena like plasma and ion storms within and around the barrier

To add more depth of dynamic environment generation, each of those phenomenon can directly affect any other object, like:

- damage any of your buildings or ships – up to destruction
- might drive ships and vehicles away from their standing position into any direction

Most parts of the universe are "unknown space":

- when starting the game only the core of the own imperial space is known to the player (the rest is unknown space, without the knowledge of system names, planets inside and so on...
- by moving ships through unknown (space) systems, after a while within the system the system and its name gets known to the player... and all planets gets added to his own universe map
- there are special storage data cubes available... depending on their size/capacity a player can store a special amount of systems there... and can sell these data cubes... so any other player can buy them and add the data to their own map

This way a new market segment will appear... to trade maps at high prizes.

7.2 Planets

Each planet is different at its topography... like in MK 1. But for the resource distribution it is different as it is dynamic.

Each planet has a randomly (based on various parameters and restrictions)

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generated resource distribution table. This does mean that there is a table for the planet present, that states:

- which resources might occur on that planet
- a probability factor for each of this resources
- an overall max factor

This means that based on the probability factor, by time (very slowly), new resources will occur on the planet and present resource fields are getting bigger – until a special point.

Once a player has completely exploited a resource field there is an x% chance that the same resource will continue to appear at the same spot, but no guarantee... maybe no resource will appear at that spot for a special time or another one will appear instead...

To be more exactly, each resource spot is real 3 dimensional... means that it also goes along the z-axis. Various mines and resource scanners are able to mine down to different max. depth.

Moreover, each planet has its own environment – its own nature. Some planets are friendly, others are rather dangerous. This does mean that randomly appearing weather conditions might:

- damage any of your buildings or ships – up to destruction
- might drive ships and vehicles away from their standing position into any direction

Every player can build up to a minimal distance to any planet. Building closer gets considered as already building within the gravity range of the planet and gets denied.

A future expansion with expanded technologies might allow buildings there.

8. energy- and stock-grid

Energy and stock transportation gets done similar to Mankind 1 to not waste too much time on it.

- energy grid

Each building requires energy to operate... except generators. Also Bases will produce some energy, but: Small and low tech bases will only produce as much so that they can run themselves – but not enough to also provide it to any other building. Larger and high tech bases will provide over-capacity... this means that they can produce more energy than they need themselves and therefore can provide energy to other structures in range too.

- energy delivery

Energy delivery is done hidden, through not visible high energy transmission rays – like in Mankind 1.

Each Base and generator has a special radius... like a circle around itself. It can provide the energy to any building inside this radius. Counting is the centre of each object, which must be inside the radius.

Moreover, energy delivery is not linear... from 0 up to 50% of the radius range, the energy delivery is max (= 100% of available energy) and is exponentially decreasing from 50% to 100% range to 0 energy at max range. How much it is decreasing depends on the generator type and its level. So for example with a low tech generator, energy available at 70%

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range might be already around 20% energy only... and with a high tech and well upgraded generator, it might be still nearly 100% close to max. range.

This loss is explained because of the field/grid power, which is required to provide the energy delivery... this field is expanding and at a special distance it is simply gone as the generator can't provide more energy to expand this radius anymore.

- energy transmitters

These are special buildings that are very expensive and are acting like an amplifier. They are taking the available energy at the spot they got build, decrease it by the amount of energy they need themselves to operate and redistribute it within a special radius – like a generator. This allows players to expand their base, without requiring building a new generator... also good for DCA energy delivery not that close to the DCA itself. This energy transmitter has no circle as distribution range, but a very long ellipse to provide energy to a far away place... a half ellipse, with its centre at the transmitter.

A build in interface allows you set up the angle/direction to which the ellipse should point to.

Anyway, this is high tech stuff, used for advanced protection strategies.

- stock (material transportation)

Stock links are generally done in the same way as energy delivery. It is done hidden, through not visible high energy transmission tubes – like in Mankind 1.

Also like at energy distribution, each Warehouse, Mine and Farm has a special range within materials can be delivered directly in no-time... without requiring to use a vehicle to load the resources and transport them from A to B.

Aswell similar to the energy delivery system, the stock delivery is always constant and 100% within its core range. Besides this, there is a so called „critical“ max. radius. Within, resource loss might happen – the more far away from the core range the higher the risk.

Better warehouses modules might reduce the loss outside the core range... like at energy grid system.

Building a mine in range of a base for example does not mandatory make it deliver its ore there. You need to manually apply a stock link to the base (or warehouse) of your desire, that is within the stock link range of the mine.

Moreover it is not possible to link Warehouses, Mines or Farms together of same type (like warehouse linked to another warehouse) to stack them this way. Each of these buildings requires a Base as a target link to make it working.

Transmissions are always possible in both ways.

- ground transmitters

Like energy transmitters, these ones are expensive and high tech stuff... to deliver resources to more far away places without requiring using any vehicles.

- space transmitters

As high tech equipment, space transmitters are available. This does

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mean that they can directly connect to a base building on any planet surface only while they remain in planets orbit. To avoid movement, they have build in stabilizers to hold position in orbit and do not rotate around the planet. Nevertheless, as the planet is rotating anyway, they can only transport resources from planet to space, if there is a direct connection between both of them possible. So if the base is on the backside of the planet, the transmitter has to wait until the base comes up into direct sight again. Heavy weather and storms might interrupt the transmission as well.

9. automatisisation

One of the main problems within Mankind 1 is the huge micro management required. While Mankind 1 is also a build up game it is not acceptable to force players to invest so much time in just moving ships and resources. Advanced automatisisation is therefore a key feature of Mankind Worlds. Anyway it is important to not let this go into the wrong direction to let payers theoretically just setup everything one time and then never require to do any tasks except counting the steadily rising money on their account and ordering fleets to attack. Honor and empires can only be reached by investing a lot of time and patience into the game.

- automatic movement
You can setup any automatic movement for any ship or vehicle – to move between buildings. For example you can define 3 bases the ship will fly to automatically. Then it returns back to the starting base.
If you have checked the infinite loop box, the ship does not stop after one cycle but does it all over again and again.
- automatic actions
Besides automatic movement you can define a ship to land at one base for example, load all Titanium there, leave the base again to fly to a Imperial Base, land there and sell the resources.
Moreover it is important to be able to set a (user defined) delay at any route point before doing any requested action there. So for example the cargo ship will land at a base, wait there for 1 Mankind day and then load requested resources, start from base and move on to next route point. So you can not simply setup an automatic route but also actions within each halt to:
 - load or unload resources, ships or other objects
Advanced: be able to define a delay for each action as well as halt options like pause the queue in case there is nothing to load
 - define a time delay until leaving the halt and moving on to the next one
 - define notification rules like send in-game mail warning in case there is nothing to load or not all cargo does fit into the destination
- automatic defence
Not only are your DCA and artillery automatically firing when an enemy ship comes in range but also nearby ships at hangars are automatically starting to assist the battle and moving in weapon range.
To provide a better service, each ship has three defence levels to define what to do :

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- full strength
fight and protect until destroyed
- medium strength
fight until 70% of hull strength is left, then automatically flee to a nearby hangar or station
- low strength
fight until 20% of hull strength is left, then automatically flee to a nearby hangar or base

Maybe make the last 2 options openly combined into one to allow setting the % individually.

... and also define on which type of players you want to act, like to all allies and/or enemies along if you want to do the first strike as soon as the other unit is within your radar range (active defence) or wait until other player does attack first (passive defence).

Additionally you might set preferred target orders to shot first if possible, like first battle ships, then fighters, then drones and also maximal defence ranges, like :

- move along with other unit until max. 1, 10 and 100 km away from original point – as long as in radar range
- move along with other unit until leaving system – as long as in radar range
- move along with other unit until leaving sector – as long as in radar range
- move along with other unit forever – as long as in radar range

More automation to think of... is possible and makes sense... like defining a spot at 3D for each factory to automatically unload ships or vehicles once the factory storage space is full and more.

- automatic patrol
It's basically a simple „move from one spot to the next infinitely“ waypoint duty. As an advanced feature, you can define a delay the ship should stay on each waypoint.
The player does open a patrol group and can add ships to it that all do the same things defined through patrol options.
As an advanced feature you can set special duties:
 - report back every allied and/or enemy ship found within scanner range
 - and others...
- automatic guard / protect
This advanced service is dedicated to any transport ships but also structures.
The player does open a guard group and can add ships to it that all do the same things defined through guard options.
You can then assign this group to any unit (ship or structure) to attack every ship, vehicle or troupe that does attack the guarded unit.

As an advanced option within a future expansion pack, a combined tractor beam and scan routine could get implemented to automatically scan all passing ships and scan for unwanted cargo for example... and more.

10.cities – source of crew and troops

Cities are working very similar to Mankind 1's cities. You need to build up a city hall and habitations to create the city. Moreover you need to build police, entertainment, hospitals and recreation to keep your people happy. You also need to provide enough food for your city population.

A city in Mankind Worlds is still not here to make money so the income from tax is still rather small. Advantages are others... like getting workers and troops out of the city to be able to build stuff (like in Mankind 1).

The major difference to Mankind 1 are two things:

- creation of goods
If you provide your city with ore it will produce various goods by time. You can't directly control what and how much it is producing but amount and kind of goods is directly related to city size, the environment where it got build and the resources you provide... aswell as the city buildings you build. You can then sell those goods to the empire or other players or use them for own constructions.

Additionally, every city does produce garbage. It can be recycled and burned at a recycling centre or sold to the empire for doing so for lots of money.

- creation of workers
Based on the education grade of your city (through building schools, universities and other teaching institutes) your people inside your city will get better educated. They will split into different types of people like scientists, engineers, tactical experts and so on. All those specialisation has a level as different modules require different levels of education.

However, the different types of workers is likely already overdressed and the required management and work to provide them already too much to take care of aswell.

- creation of troops
There is a special building available, called "army base". Once such a building gets connected to a city and moral at this city is high enough, a small and random part of produced workers are directly transferred into elite soldiers over time. Those soldiers are used for the "units capture" module.

11.ships, structures and resources

- **mass and weight**
Based on used materials each object within the game world has a mass and size. So for example different resources have different material density so one kilogram of one ore does not weight the same than one kilogram from another resource. Moreover each resource has, based on it's particle desity, a different mass so one kilogram of one resource might require 1m³ storage space and another 3m³.

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The weight is an important part for any unit as each engine has a maximal push power... so the lower the ship weight (including all loaded within) is compared to engine power the faster it does start moving and the faster it gets to maximal speed. This does also mean that there might be cases where the ship does weight too much and the equipped engine can not move the ship (theoretically this is impossible as within normal space you do not have any powers affecting you so you could theoretically even move a 1 million ton ship with your own feet power... it's just a matter of time how long it does take to get it to speed x; anyway there might be regions that affect your ship to pull you within a specific direction where it is important again to have a powerful enough engine to overcome it; moreover we always have sun winds and particles within space that are indeed causing friction so there is always some power preventing you from moving to x speed instantly).

The mass is another part, which does define the size of each ship and, most important does additionally limit the loadable resources. So you can't just always load 100 tons of any resource for example... resource mass does define it's size in m^3 where you also only have a limited cargo room of $x m^3$.

- **ships movement**

Based on the mass of a ship and its used engine it does move and accelerate faster or slower. Major parts of the gameplay are related to ship maneuvers. You do not just fly straight ahead but, especially within battles, need to turn your ship around to get in weapon range for example. While the engine can deal with this very slowly while already moving, maneuver engines can highly increase your flexibility and rotate speed and can even allow you to turn while not moving if they are strong enough.

- **weapons**

While some weapons might allow a 360° shoot direction, most are limited to specific angles. For example a weapon installed at a side of a ship can logically only reach a 180° area or even less.

Moreover, each weapon does require some time to get recharged and put into position... while small weapons might change direction quickly other large ones might be very clumsy and take some time to move. As a note, each energy weapon can of course also overheat and therefore require some time to get colder in order to fire again... specific cooling modules might reduce this cool down duration.

Besides this, it is also important that weapons do not simply fire and hit the target but a) damage is getting calculated dynamically so a hit can be a direct hit with lots of damage or might fail to only touch the target and b) while torpedos for example might fly to their target a energy weapon does require a straight sight to hit the target. If anything is inbetween it might fire anyway but will not hit the target but the object in between. This does mean that you not only get „out of range“ problems when shooting a specific target but also „not visible“ problems where you can't directly hit it.

- **damage**

While different weapons are doing different kind of damage and some

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might directly nuke out specific systems while the rest is still operational, damage done by each weapon can affect the surrounding area with damage aswell.

Moreover, exploding units and also hit explosions can damage objects around.

- **destroyed units**

Once a ship got destroyed not only debris does remain for a while to block view, radar and space (for some time after destruction, then it will vanish), there is also a chance that containers with stuff that was present at the destroyed ship will remain. So if you destroy a transporter with 1000 tons of resource x, after destruction there might be y tons of this resource left within a container so you can target and move it to your cargo bay... you might get any other item loaded at cargo bay remaining within a container after destruction like partial or heavily damaged weapons, materials used for specific ship components and more.

- **unit production**

As MK 1 always had problems with the massive amount of units produced by players the only solution is to offer ways to upgrade installations and to not require building dozens of the same building. This goes especially for warehouses, hangars and generators.

Moreover, for DCA and artillery, there are only basic DCA structures (chassis) available now... where you can equip as much various (weapon) modules you like – as much as could be fitted.

- **interfaces**

Most buildings have special separate interfaces to control their related duty, like :

- setup resources to extract and where to deliver them
- manage loaded units and resources
- manage factory production queue
- setup special abilities
- ...and so on

- **upgrading**

To make upgrading more easily, you can directly upgrade a lower module with a higher one if the required space is available. Stored resources or ships and so on will not get lost and you also do not require to unload them for upgrading. Anyway, upgrading does take some time and during this, all stuff stored within related module can't get accessed.

- **different building types**

- hangars

To store ships and vehicles, you need a Hangar.

Each base has, depending on its type and level, a special amount of storage space for ships and vehicles. Moreover, there is a maximum size for each base and hangar, up to which it can handle ships and vehicles. Larger sized ships and vehicles can't park inside... like in Mankind 1.

You can link them up to as many Bases in range as you like if the base is within range.

To make a Hangar link to a Base, to have control over it

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directly at a base, the hangar must be within a special range, depending base type and tech-level. Once a link is active, the Hangar shows up at the Base interface... allowing you to control ships inside to start them directly from within the base interface for example... anyway the ships will exit at hangar and not at base.

Advanced orders are available to move a ship from one hangar/base to another hangar/base with one click → anyway the ships will normally exit the first structure and land at the other one automatically.

- **Warehouses**
Warehouses are working the same way as Hangars.
You can link them up to as many Bases in range as you like, to allow all of them to directly transfer resources from/to the warehouse.
As a difference to Mankind 1, Warehouses can also store goods... but storage capacity is calculated differently for ore and goods – based on their size (volume). Nevertheless you can store ore and goods at the same time at one Warehouse.
- **Barracks**
Like in Mankind 1, Barracks are used to hold people or troops.
This building is working the same way as a Hangar and can also hold workers and troops at the same time. As troops require more space for their equipment, Barrack capacity is calculated differently for workers and troops.
- **Mines**
Various Mines are available that can not only mine at different speed but also can mine on different depth... so players might mine very deep to also get most rare resources out of a planet.
- **weather control satellite**
You can build and bring into orbit (somehow) a kind of weather satellite, that does "control" the weather conditions on this planet. The better this satellite is, the more less are the damages caused from the weather... maybe once you can completely control the weather there (depending on planet type and weather strength) to reduce weather damage to 0.
Such satellites are there on all planets where newbie's start to control the weather.
- **logistic centre**
A player can build (or already included at main base?) a logistic centre which will collect all logistical data for him so he can exactly see a list of all mines, bases, structures and related resources and productions... also summary of all available stuff and so on.

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- imperial trading association uplink
Each player can build a imperial trading uplink building, which he can link to any of his bases. After done, all his offered resources and ships are getting into the global imperial market database so every player can query it at any imperial base.
However, the player must be friendly to the empire to make this working.
- **formations**
Allow a certain 'pattern' to be saved and used within a group of ships (there are several fixed formations you can chose from and only define distance between each others manually).

12. building stuff – blueprints

To build any structure or ship, you need several things. First you need something to build the related stuff with, which might be either

- a builder ship to build structures or
- a factory on a planet or in space to build ship structures, modules and ammunition

Moreover you need the required sources to put them together, which might be:

- resources
This is the refined ore your mines are subtracting from the planets ground and which then got refined within a refinery.
- goods
Various goods are available for better stuff, like:
 - various electronic parts
 - fibre optical parts
 - and more...

All those goods are getting produced by cities... some of them are also available to buy from the Empire or maybe other players.

Once a building got build or a ship got placed together from modules and a ship structure, it is ready to operate. Now, to make it finally working, you need to provide it with personnel (they are operating the ship or building).

You can do this in two ways:

- recruit educated people from your own or other players cities
You get educated personnel out of your cities and can transfer them to the building or within the base interface to your ship.
- put in robots
The advantage of them is that you need fewer robots than workers to operate the same building or ship.
The two disadvantages are that robots are expensive and they are only available to buy directly from the empire.

As a note, each building and vehicle has a minimum and maximum people/robot statement. The minimum value does indicate the minimal amount of people which are required to operate the unit or structure, but with a minimum effectivity aswell. The maximal value does indicate the maximal amount of people that can be put into the unit/structure. Additionally, the maximum is normally not required

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to gain 100% effectiveness – however, putting into more than required can help to stay on 100% when some people get too old and automatically quit their job or even die by time on an attack for example.

12.1 Blueprints

Blueprints are basically nothing different like a manual. They store different modules setups together within one spot. Those blueprints can then be sold or used at own factories and builders to produce it.

Also several blueprints can be bought at Imperial Bases on low prices.

Moreover, once a player does gain all required knowledge, standard blueprints will get added to his blueprint chart automatically to give him a simple description on what he can do with his knowledge. Advanced ship design and tactics are always reserved for self discovering only – so advanced ship designs and blueprints must always come from players.

12.2 Research

Research in Mankind Worlds is different than at Mankind 1.

Each player has a basic ground knowledge he starts with. By building a laboratory he can advance this knowledge.

There are various technology levels present. The player needs to first research this basic technology knowledge before being able to use anything from inside tech. Moreover, not only one basic research is required to be able to research the next tech-level but also various other requirements like research of special objects or even special knowledge.

As another major change, a player can not use any module, ship or station from a technology level he hasn't already researched... it's like he does not know how to use it.

So there are two different types of research:

- object research
Like modules, structures, buildings and so on...
- knowledge research
They are ranging from "usage" research (like usage of special techniques or materials that are required for more advanced research) to "efficiency" research (like making refining or damage done by your energy weapons more efficient).

To do any research, players need to buy research blueprints. A lot of them are available from Imperial Bases... rare and very rare ones can only be found randomly at Imperial Bases, ship or station wrecks or on planets or space within containers.

Once a player has bought (or found) one of those research blueprints, he needs to manually "subscribe" it to his global internal research database to analyze it (takes some time, depending on tech level) and then he can research it at any of his laboratories.

A 2nd way is to just let your laboratory research on a special kind of technology or knowledge and based on quality of your laboratory personal you will discover new technologies and knowledge over time.
Of course this one is the slowest way but cheapest anyway.

Moreover there are special raw research blueprints available to buy at any Imperial Base. Each player can buy them and with some money and time he

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can recreate a normal research blueprint out of it through a base service (only own bases, no Imperial Bases). Those research blueprints can then be sold.

Even high capacity raw blueprints are available to store multiple researches into one raw blueprint.

13.the empire(s)

Each imperial base should be like any other player – like a very big and strong guild. It has special reserved tech, ships, modules and stations and automatically gets controlled by the server but is not invulnerable. Even if there are imperial NPC polices and heavy defences around each Imperial Base it can be destroyed normally with enough fire power from a large enough group.

13.1 Empires, user driven

The main idea behind not invulnerable Empires is that employees of the publisher/coding team will get access to the Imperial Technologies and are able to repair any Imperial Base, structure and DCA and are also able to build imperial stuff within a special range around Imperial Bases – they are super game masters (SGM).

An advanced logging system will be set in place to inform the related persons on any attack, damage or destruction on any imperial ship, base and structure... and also about any battle within imperial space.

Even if this would require at least one person to always have a look around and be available in case something happens this would create a much more realistic universe – advanced automatisisation can automatically initiate rebuilding of stuff anyway.

Players will be able to create and drive their own universe... making the empire real acting regarding their own doings.

13.2 Imperial Space

Imperial space is handled similar like in Mankind 1. There is a core region with several larger and smaller Imperial Bases. All those bases are heavily protected with build in and surrounding weapon systems... and imperial police patrolling around the bases and space.

Like in Mankind 1, players are not allowed to build in space within a special range around any Imperial Base... but on planets.

Both empires are located on the outer regions of their space... protection is heaviest very near to the border and is getting more weak to the center of the galaxy.

Near the center, there are (almost) no Imperial Bases – this is unknown and unprotected space.

It is important to heavily protect the core of the empire at the border to protect newbie's and avoid that even at a very heavy battle any group might move forward to this center.

Nevertheless, it should be still possible to also destroy this core... even if almost impossible.

Moreover, there is no limit at imperial space so players might park as many ships as they want around any imperial station... but: you must pay a fee for every ship (based on its size) every Mankind hour to the empire.

Additionally, the empire has large sensor arrays installed, shared to all friendly allies so they can see every other player within.

To gain free space for newbies around the starting imperial bases, the empire does only grant new players to build at these affected planets for a short period of time. After that they get requested to either dismantle their stuff to get at least still some money out of it or the empire will send out builders to automatically dismantle that stuff.

As a newbie you also don't need to pay parking fees to the empire for the first time. A regular imperial report to the players mailbox does remind him on this and how long he still has left.

13.2.1 Imperial Base

Each Imperial base does offer various functions to any player :

- rent cargo space
Even if you can buy and sell stuff directly from within parked ships (their cargo space gets taken into account) you can rent additional cargo space at every imperial base.
The more space you rent the more expensive it will get, as also the imperial base has a total limited cargo space available to rent to all players.
- buy and sell resources and goods, hire crews
Based on request and demand, the Imperial Base is buying and selling several resources and goods directly.
For any other stuff, the player can place a buy or sell order within the Base... every other player coming to this base will see it then. The resources and goods to offer will still remain at players imperial cargo room until another player bought it.
- buy various ship structures and modules
The Imperial base is only selling those stuff, but do not buy it back in any way. The player needs to place a sell order to sell them to any other player... or place a buy order to buy other structures not available from the empire.
- accept various trading, combat or even escort missions
The empire might set other players at targets for combat missions... like to destroy a special base or ship within a special system.
- refine ore
The empire has a refining service in place to refine ore into resources. Anyway, this imperial service is way expensive and self-refining is always better.
- sell garbage from cities
High prices... players might build their own recycling center and can even produce energy out of it.

Each Imperial Base is basically not different than any other player base. The major differences are that it contains more slots for better weapons, has more shield and hull strength, does offer the special imperial base interface and also imperial police is automatically patrol around. Also imperial DCAs are placed to protect the Imperial Base.

Moreover, each Imperial Base offers each player cargo room to

store their resources, goods, ships, modules and structures. A small amount is for free if you are friendly to the empire.

As a special service, the empire does offer more cargo room to all players. This means, you get a special amount of free cargo space offered to store your stuff. Each player can rent more cargo space at any Imperial Base... based on a monthly (in-game time) fee. It's up to the player to rent as much as he wants – up to a max. limit, if he can pay it.

Nevertheless, the initial free cargo room is always free and does not cost anything. If you are a member of the related empire, renting additional cargo space is cheaper than for independent players that do not belong to it.

13.3 Imperial security rating, friends and enemies

Each empire has a separate imperial security rating... so every player has 2 security ratings. This rating might reach from +1 through 0 down to -1 or even below. At the beginning, each player is starting with an initial security rating of +0.5 for the related empire he starts in and -0.3 for the opposite empire.

Each player will get automatically raised related security rating by attacking or destroying any stuff of an enemy. The more enemy (the lower his rating) the related player is to this empire, the more your rating will rise.

Attacking a neutral player will slightly drop your rating based on if it got done at imperial space and attacking a friendly player will drop your rating too, but faster.

The more friendly (the higher his rating) the attacked player is, the more your rating will drop.

- neutral players

An imperial security rating between -0.1 and +0.1 means that the player is neutral to this empire. He is being ignored if he gets attacked within imperial space... he is on his own.

- friendly players

Everything above +0.1 means that the player is friendly to this empire and will get protected if getting attacked within a special range of any imperial base.

Ratings between +0.1 and +0.5 define the strength of support through imperial police. This does define for example how far away you might be max. so the imperial police is still moving to you to help you if you are getting attacked, how much police ships will come to assist you and also if the imperial police will send out a distress signal for you to call others to help you.

Ratings above +0.5 means that you are a very welcome friend to the empire. Everything above 0.5 allows you to officially join the empire, which does cost you a special amount of money (a special amount once to join and a fee to pay every Mankind year). Once joined, you will get special offers from the empire like special missions, rare ore or modules/structures to buy. You might pay less for additional cargo room on imperial bases (up to get it for free), might pay less when parking ships at imperial space and so on... so you get actively supported by the empire as value member.

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Max. rating is +1.

- enemy players
Every rating below -0.1 does mean that you are an enemy to the empire.
Ratings between -0.1 and -0.5 define the strength of attack through imperial police. This does define for example how far away you might be max. so the imperial police is still moving to you to attack, how much police ships will come to attack you and also if the imperial police will send out a distress signal to call others to help them.
Ratings below -0.5 make you an official PK (player killer) for the related empire. This means that related players will get a special bonus when killing your ships or stations. This might range from a faster rise of related security rating and even money for each destroyed unit. It depends how worse your rating is... which might drop even below -1... to still have a limit for negative rating, this might be -3.

13.4 imperial and player driven jump gates

The empire has invested a lot of time and money to build up a few permanent, and very large, jump gates... to connect various regions of the galaxy together and making it possible to quickly travel from one area to another... within the empires controlled space.

- Each ship travelling through such a jump gate must pay a small fee... prize depends on ships size. Maybe it is free for friendly players with security rating > 0.3 or so.

As a special feature (for future development), at highest tech levels, there are several jump gate modules available... a rich enough player can combine them to build up a own jump gate and control the fee paid from each ship travelling through it.

Unfortunately there are two such jump gates required to be able to open a hyper space tunnel... but: both jump gates must not be owned by the same person.

If player A builds a jump gate and want to connect it to player B, Player A is selecting the target gate from a list and Player B automatically gets a request form displayed, telling that A wants to link to his gate. If Player B accepts this, the link will get established.

Depending on the distance between each gate, there is a lot of energy required to power each gate and make it operational.

For the paying fee, this is up to the player that owns the starting gate. If a player wants to use it, he gets displayed the prize for it (depending on size and amount of the ships he wants to send through) and if accepted, he can jump while the money gets automatically taken from his account.

So Player A and B can define different prizes... this does not matter. You always have to pay the prize from the source gate... means if you travel from Players A gate to Players B gate you have to pay the price from Player A.

14.resources and refining, recycling centers

14.1 refining

The ore a player gets out of the ground by using mines, can't be directly used to produce stuff. It needs to be refined first to get valid materials out of

it. Each imperial base provides a refining facility to do this for a special amount of money. Refining does also produce several losses and is not 100% efficient. Higher tech levels of refineries can reduce this as well as better knowledge of refining processes.

14.2 recycling

Each city does produce garbage. While you can sell it to the empire for lots of money, you can also build your own recycling center and recycle it yourself... which does even also produce some energy.

Better technology and knowledge makes it more efficiently to recycle more garbage in less time and get more energy out of it.

15.player customization

As an advanced but very important feature, players can customize their ships and stations with optical gimmicks like painting them in different colors and even can overlay different patterns, they can build a lot of "just eye catching" enhancements, like :

- light flashing gimmicks (for example to flash the entrance of a base like on airports)
- base enhancements like (guild) flag banners
- repairing animated robots and such
- big advertisement ads they can select from different ad animations and write in their own slogan and text
- decorative stuff like ship wrecks and such
- more to come...

Such things might look overdressed but are very important for players to show their strength and customize their home.

Moreover it's a good way to make players spend their money ☺

16.player communication and interaction

There are various channels available, that are located at fixed frequencies below 1000.00 MHz:

- global channels (universe wide chat)
 - lobby (for everybody)
 - traders launch (for trading related chats)
 - help launch (for player looking for help)
- local channels (restricted to the currently being in system)
 - lobby
 - traders launch

Moreover, each player can open a new chat channel above 1000.00 MHz on any frequency he likes.

- chat channels

The player only defines the frequency and if the chat is local or global, and that's it. Moreover, the creator of any chat can set a scrambler signal along with any signal so only players that know the scramblers key (password) can listen... others will only see random hex characters or nothing.

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- battle group channels
Similar to chat channels, but with the expansion that you can define leaders that can set marks on a global tactical map so everybody inside the channel can see it on his own tactical map.

Another big part of chatting are chat commands, like in any other MMORPG.
Further internal discussion required.

17.claiming territories

It should be possible for larger guilds to claim a territory, which will then be marked at the universe map so everybody can see it, along with the guild logo. Claiming a territory requires special power and amount of members... several rules to define when claiming is possible must be worked out.

18.market, trading and advertisement

18.1 imperial market, trading

When opening the market interface at any imperial base, you can query all available buy and sell orders from the empire. For better overview you can define to only look on bases within the same system, same sector or globally on all bases that are belonging to this empire.

Anyway, some outer imperial bases might have no imperial trading uplink so their stuff gets not listed if not looking at this base itself.

Additionally, each player can build an imperial trading uplink, link it to his own base and if he is friendly to the empire (pay a small fee to the empire for it), he can transfer his own buy and sell orders to the empire database... so other players can see them directly at all imperial bases.

18.2 advertisement

Every player might rent an own office at any imperial base (only one per player and guild) where he can write news directly to the imperial trading network – which will appear on imperial news papers or on imperial ads in front of imperial bases.

19.friend, guild and alliance management - unit sharing

Each ship and base can be shared with various sharing levels to allow other players to:

- enter the own base to see offers and buy available stuff
- move own ships around
- use own ships to load/unload stuff (sell/buy through friends ships)
- use own ships to attack other players
- see with own ships radar and with own radar stations
- use own factories to order ships to get produced (will remain to the owner nevertheless)
- use own troops and workers for others ships, stations and the capture module

So this is very similar to Mankind 1 style but with more and more detailed sharing levels to allow communities to use all stuff together.

19.1 guilds

Within a guild each player even has more possibilities. Most parts of the guild management are done through the website.

First of all, you need a special amount of money to be able to create a guild. You then request to become a guild at the empire and give all details required (like guild name and tag). After, the empire will check your money and will open a guild progress pool for you (if you own enough money). Now, you have 7 days... within these 7 days at least 5 players must join your guild (all, including yourself, must be at least neutral to the related empire – or friendly). Once done, you can go to the empire again and request the guild creation. If everything is fine, the empire will create your guild... this does mean, that a guild money pool will get created and the required money from the creator will get transferred to it. Moreover:

- a default imperial logo will be set as guild logo
- the guild gets created physically to get listed on the webpage and in-game
- the creator gets set as guild leader and gets full rights
- each guild gets a private chat channel

The guild leader can then log into his guild web-services to manage the guild. Those services include:

- own ranking scheme
For example, there are 12 different ranking ensigns available and each guild leader can freely define 32 ranks and assign one of the rank ensigns to it.
Afterwards, each guild member can get assigned one of those ranks.
- own duty assignment
Each guild leader can freely define 12 duties and give each guild member such a guild duty assignment. This is important for other players to see who at this guild is dealing with diplomacy, trading and so on.
- access levels
The leader can assign predefined access levels to each guild member to define who may:
 - take money out from the guild pool
 - control others ships
 - use others factories to order own ships
 - and so on... up to full control over all unitsIt's like the related player is playing with others player account but has still no control to his mails and comm.-interface and money.
- freely defined guild logo
In the past it got proven that allowing players to upload an own logo is no good idea. So player might construct their own logo. For example, each logo consists of 6 predefined layers. There are a lot of various types and patters available for each layer and moreover for each layer the guild leader can define a separate colour.
This way thousands of different logos are possible.
After the guild leader has setup his own logo, it must get checked if there is already the same logo existing (check for same layer patterns,

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colour does not matter) and if not, it gets stored and exclusively reserved for this guild.

- guild profile
Like each player should be able to fill up an own player profile, like a personal card, to present himself to the community at the official webpage... also the guild should have such a personal card to present itself... to view others about their aims, duties and also list all members and so on...

Guild management rules:

- a guild leader can never take away his own leader status
If he wants to be no longer a leader, he needs to promote any other guild member to become an additional leader and this new one can then demote him.
- there must be always at least one guild leader present – if there is only one remaining, this one can't leave the guild
- each guild leader can request to close the guild
In such a case, an automatic request is send to all guild members. They have to vote and if at least 3/4 of all members are voting for it, the guild leader will get the possibility to delete the guild for 48 hours. After that time, the request will get invalid and the guild can't be deleted anymore.
It is important to not immediately delete the guild as maybe still some stuff has to be done before official deletion or the request was chosen accidentally.

As usual, there is always the problem about what happened to a guild if all players leave it?

- the minimum guild requirement is 3 members (including the leader)
If there are only 3 members remaining, no one can leave the guild. To avoid a guild to imprison other player in such a state, an emergency procedure is available. The moment one of the remaining 3 members is requesting to leave the guild, an emergency procedure is getting active:
 - the guild leader is getting informed by mail and in-game that his guild is in progress of getting disbanded because of not enough members remaining
 - the guild leader has 3 days remaining to act... this does mean to either
 - * bring in a new member (the moment a 4th is joining, the one trying to leave is left immediately)
 - * try to persuade the one player to take back his request to leave the guild

nevertheless, after those 3 days, if no new member joined nor the other took back his request, the guild automatically gets disbanded

The guild and all it's web entries get deleted and all remaining money from the guild money pool gets transferred to the remaining leader (if there are still several leaders, the one that is leader for the longest time will get it)

20.gambling (expansion)

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As a later expansion to Mankind Worlds, some imperial gambling areas are opening their doors. Player can for example meet within a local gambling chat room where they see animated NPC ship races they can bet money on... or imperial in-house soccer games and such.

21. underground technology (expansion)

As a later expansion to Mankind Worlds, players will get the ability to build structures under the ground on planets.
Ways to build underground energy generators and factories can be thought of... aswell as special ground bombs and scanners to deal with them.
As an advanced option even underground tunnels might be possible to move troops underground into enemy areas.

game client features

1. VoIP, Teamspeak style

Each client can create a VoIP channel with various restrictions and options. This feature is meant to be similar to the common TeamSpeak 2 server/client architecture to allow players to communicate better within battles for example.
More details are described at the technical document.

Section III: Resources

overview

Basically Mankind worlds does handle two kind of resources. The ones a player does mine or substract from somewhere and the people a player does require to operate his units and structures.

extracted resources

The player can extract different resources from various places all over the universe. This does include either solid resources like rock, gold, silver or titanium that must be put into boxes for transportation aswell as liquid and gas resources like titan, various acids and more that must be placed into tanks for transportation.

Those resources are the base for all further production on parts and sub-products, which then get used to build modules, ships and structures.

people and robots as resource

Besides modules, parts or whatever product is required to build a unit or structure, also people are required to operate them. There are different kinds of experience levels making the workers more or less effective in combat only.

When taking out recruited people from a city they basically start up with a 0 experience... special education buildings might raise this to get some more experienced people.

However, the most part of their experience is taken in combat. While fighting and doing manouvers, they learn to do their military job better and better and as such rise the experience level of the unit.

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While those people can only be taken by own cities or hired on various bars within bases, the player might also buy robots to operate his stuff. However, while robots are available at different experience level aswell they are always more expensive than hiring people.

Section IV: Artificial Intelligence

The AI of each unit is skaled differently based on the experience of the operating people and/or robots. This does directly affect how good or bad weapons do hit and how good or bad automatic flee manouvers are being executed.

Other parts like locating resources or scanning environments are not affected by it.

Besides this, each imperial unit has its own AI, which can get defined upon spawn of the unit within the universe. This way, some really elite units can defend the imeperial main areas while some more "dumb" units do partol outer regions.

Finally, each AI does include some basic combat tactics like upon patrolling or escorting a transport ship for example. Different AI can affect the unit if it does just stay with the transporter, flee on different stages of damage or even fight until death.

The player can setup some basic options for his own units to make them rather offensive or deffensive when they get attacked or even get any enemy within radar range.

Section V: NPCs

the player is creating the game world

The player is creating and populating the game world, which is the biggest challenge a game can create. Role playing games are living from a leveling treat mill – a leveling grind. To advance your character you must exercise your abilities and as you can't force players to play together nor have enough players available to always make this possible, the leveling grind does live from NPCs (= None Player Character). Players fight NPC monsters and creatures and are trading with NPC traders most of the time.

Even if the Mankind 1 concept is based on a game completely without any NPC, Mankind Worlds does contain them... but contrary to common MMOG, there will be no NPC pirates, monsters or such... there are basically only two types of visible NPC available (for Imperial Bases and resource and ship buying/selling there is already some kind of NPC action... but not directly visible in game as you do such directly within imperial base services):

1. imperial NPC traders

Those have basically no weapons equipped... just imperial trading ships to fill up the space and give the universe some automatic live... anyway they might have police patrols on their side.

Technically those ships are like normal player ships with automatic routs to fly from A to B. They can be attacked and you can also take over such ships or destroy them like any other player ship, but you can't interact with those NPC. However, robbing or even destroying such ships does highly drop your standing with the related empire.

Nevertheless they will react on you if you are attacking them... like hyper-jumping

away, calling nearby imperial police or send out global distress signal to request other players for help.

2. imperial NPC police/military

They are like the NPC traders but with strog weapons and well skilled AI. They patrol around imperial space and imperial stations. Moreover, they might escort those imperial trading ships. They react on direct attacks or nearby battles and can help other players automatically if their standing with the related empire is fine.

Like with NPC traders, you can't interact with them directly but they will react on your actions if you are attacking them or a protected player ship or imperial traders within their range.

Section VI: Story and RolePlay

The background story leading to Mankind Worlds should continue the MK 1 adventure... Generally it does not matter how exactly this story does look like if it does follow the general aspects of the game conception, which are:

1. the story should continue where the very basic story from Mankind 1 did end
2. the first story arch should deal with the occurrence after Mankind 1 and should lead to the new Mankind Worlds universe and explain why what happened and those results
3. the story should be based on the new Mankind Worlds universe design and open for future expansions of the universe – so do not hard cut any end of the play ground
4. based on the story until first release the story must be widely open for future expansions and occurrences within the universe – on both, player and environment side
5. a cross story arch also at Mankind 1 should slowly lead to the new universe until release so we can slowly build up the hype and storyline from when the website gets released until the game gets released

The universe design itself can be done in different ways, as long as it does respect the fact that on game release there are two different factions (that are both human) fighting each other... so separated regions to protect each of their newbies must be present. Moreover, some kind of natural barrier in the middle between would enhance the gameplay. Additionally, there must be room for a future expansion with at least one new (alien race) faction infiltrating this universe from somewhere else... like a neighbour galaxy. This could be explained through a wormhould found or a new jump gate technology or similar to reach this far point.

story idea 1

The war at the mother galaxy continued and could not be won / finished as hoped. The arrival of the two princes and their sons at the Mankind galaxy got welcomed with enthusiasm in the beginning. They brought the first news from the mother galaxy since all the pioneers had left it to explore and settle the new Mankind galaxy.

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At that time, nobody had known that these two princes not only came to the Mankind galaxy to bring news from home and to establish law and order here... no. Under secret development, the empire at the mother galaxy advanced the jump gate technology and found a way to reverse the gate routes – allowing to also travel back from the Mankind to the mother galaxy and not only contrary. Looking desperately for new ways to get more resources to build up more ships and defences for the battle this could probably have changed the war as resources were already nearly exploited on both sides and giving one party new and nearly unlimited resource supply again would surely make this party win the conflict. So the empire ordered the two princes to prepare the arrival of secret and hidden transporters to build up one of the new developed jump gates at the centre of the Mankind galaxy and to take care about this project. Nobody at the Mankind galaxy, except a few loyal and trustful persons, should get known about their plans. The empire planned to build up this gate and then flood the Mankind galaxy with their troops to control resource flow by themselves... to bring as much resources as possible back to the mother galaxy to build up new fleets for the still running battle.

One of the major problems they had was that the new jump gate required an enormous amount of energy. Moreover, to control the energy flow within the gate and build up that enormous subspace field, some dangerous new substances got used. Another problem was that even if the gate got disassembled into a lot of smaller parts – each of those parts still was not that small at all. By time, citizens of the Mankind galaxy found out about those transports – before the gate could get build up. As the two princes and their sons tried to suppress all questionnaires about to play on time, citizens of the Mankind galaxy merged together to build up a wide front against the former home empire. They got independent and once they found out about the real plans of the empire, a revolution happened and the old jump gates got destroyed by the citizens of the Mankind galaxy to prevent the empire to send in new forces. Nevertheless, the empire could already send in some minor forces to support the two princes and their sons... a battle started.

Under that pressure, such close to their aim, the princes did everything to finish the new gate as soon as possible – to bring in new troops to hopefully get the situation under their control again. But they failed...

By trying to bring the new gate online as quick as possible, the princes and their loyal engineers brought parts of the new gate online without adequate testing. It happened as it had to happen... the new gate got out of control. When the gate got powered up, already near reaching max power capacity, a malfunction and as a result of it an explosion happened at one of the subsystems that controlled the power flow.

A chain reaction took place and the gate blow up with an enormous explosion. Some of the newly developed substances that got used to control the energy got released into space... with all that free energy from the explosion the nature reacted... but not as anybody could have expected. While the gate explosion still took place, natural particles and parts of the new used substances collapsed, just to expand again with a new small explosion – releasing even more energy... similar to a dying star. All this resulted into such an enormous energy release, an explosion of such a big dimension, that a massive high speed space particle boost happened. Particles and even entire asteroids and planets got driven apart by this pressure wave.

As a result, the entire Mankind galaxy became a new face.

A lot of people died within this explosion and its resulting pressure wave – most installations got destroyed. Only the ones living far away from the centre survived.

If any of the princes or their sons survived, is unknown until today... aswell as what what happened at the mother galaxy and the war there.

As a result of the explosion, a natural barrier got created between both remaining parts of the Mankind universe. Unfortunately it's not that easy to get through this natural barrier as very high radiation and massive plasma storms are present around and within the barrier. It is very risky and dangerous to fly through them... big chances to get hit by

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a storm or other still not explored phenomenons and your ship to get destroyed. Moreover, high radiation is disabling any yet known communication possibilities and current radar is not working when in range of the barrier. On the other side, this new barrier released new substances and resources within space (as gas clouds or asteroids) – probably created by the explosion under that high pressure and heat and from old planets fragments. Also several planets are still present and possible to get settled within range of the barrier, offering new resources aswell.

By time, both sides of the galaxy found ways to advance their ships to go through this barrier – still very risky but possible.

As both sides found various new resources and substances on both sides of the barrier – some not present on each other sides – they started to make trading deals.

Unfortunately, by time humanity felt back to their natural being when they realized that some substances and resources are essential for special development and demand could not hold that high amount of requests. So some traders got corrupt, tried to steal resources from others... resulting in a war. From that day on, both sides are in conflict between each other.

Each side does hold some resources and substances the other side does not have and therefore high end development was different on both sides. They both have the same ground structure and principle technology, as they formerly all came from the same universe, but latest development was different because of separate research and different resources available.

story idea 2

The mother galaxy managed to establish two way communication and traveling aswell (like at story idea 1) and ordered all pioneers to move back to their mother galaxy to help at the battle. During transfer, the new gate got destroyed so pioneers got left at the Mankind galaxy without any contact.

A new player can start at one of those both attacking parties within mother galaxy.

With a future expansion, communication from the Mankind galaxy could get established again and players might start as a 3rd human fraction.

imperial and player roleplay

While players have all abilities to role play between each other and the imperial NPC, Mankind Worlds does intelligently take advantage of the fact that it is only operating as one game world. This does not only allow careful planning on world events of various different kinds (like space races, battle competitions etc.) but also intelligent world progression. Expected two trained and skilled people within the game running company are working as "world guards". They are using various tools to monitor progress within the universe like overall market prices, larger ship movements and more. Additionally, they have tools to "spawn" imperial >objects< - in realtime while the universe is still running. This does range from adding single NPC patrols and fleets up to predefined, scripted events like imperial base settlement (automatic introduction of a base build up which does progress like normally build but fully server controlled). Basically they can't directly control a single ship or base but have tools to enlarge or reduce the imperial appearance. This does allow on deep imperial role play and world events on a regular and realistic base... the world is progressing like the players do, every day.

Carefully planning and usage of such tools can extensively enlarge the quality of the game and the interest of players within.

Section VII: Game Progression

getting started

Upon first login, the player does start with a builder, some fighters and resources (all well equipped and loaded) on a virtual training area. He gets welcomed to the wave of new settlers and offered some training before he gets released to the real world.

As such, the virtual training area is nothing different than an instanced system with one base, a few planets and resources. He is always alone but can learn how to move units, build stuff and earn money through resources. An extended step-by-step tutorial does guide him through all basics of the game and how to control his stuff.

At any time, he can end the virtual training area and proceed to the final game arrival. When doing so, the instanced training area gets closed and the player does start up with a small builder, fighter, some money and some additional people at one of a few big imperial bases. He can select at which he wants to start to help players to connect and start with their friends.

first steps at the real world

Once arrived at the real Mankind universe, the player gets some basic delivery missions from the empire to get some more initial money and be able to better settle down.

After he may just continue with imperial missions like deliver stuff to other bases, escort imperial ships or just step out to settle himself on a nearby planet. He may then build up his first base, locate and extract some resources and sell them to earn money and progress his career.

advanced progression

Once the player did settle down and established some basic structures and income he is free to do almost everything he does want to. Advanced base sharing mission options do allow him to setup own trading outposts, offer missions like escorting, building or transportation and even build shops and structures for entertainment, advertisement and (if licenced from the empire) gambling areas.

Advanced gameplay does include dozens of options to secure the own settlement in space and on planets as well as do advanced trading and build-up tasks.

Additionally a player might just focus on research or exploration. Both can get stored to data various crystals and then sold or just traded freely to other players.

Another advancement might include bounty hunting or spying – tools are present for all of this.

As part of the high-advanced-gameplay single players or groups of players (guild/cooperation or even alliance) can build up reputation with the empire and gain different security levels based on this, where they get access to advanced imperial research, weapons and units to help to defend the empire against their enemies.

The established team of people that do track and monitor the universe every day can individually react on such and make the game experience even more unique and give it depth that has not been seen yet in any MMOG.

Section VIII: GM and Admin functions

As a major lack of service at Mankind 1, there are no GM tools available. They are not essentially for some trustable players but for employees of the publisher / creator.

A GM admin tool must exist to:

- transfer any ship from any player to any position at the universe instantly (even within stations)
- transfer money from any player account to another one
- transfer any ship from any player account to another one
- donate money to any player account
- donate any ship to any player account and place it to any position at the universe
- send out universe wide messages that every logged in player can read on top of screen... like a universe wide shout
- send out system / region wide messages... like above but only visible within a special system / region
- delete any unit at any player account
- delete any resource or good from any player account
- clear or donate any research entry at any laboratory at any player account
- control both empires and their stuff (build and upgrade stuff and also place pond trading ships along with defining their parameters and routes)
- ...and more...

Section IX: game and marketing strategies

account strategies

The declared aim is to have one account for each player only. While there are no plans to restrict this in any way the game account conception is designed to allow somekind of extension of the same account. This said, each account has a limit on controllable units (ships, tanks and structures) to keep the server load and as a result the cost per player under some control. The player can request a status at any time within the game to show him a colored bar representing his units count. No numbers are used but just overall "descriptions" like unloaded, averag loaded, heavily loaded and full. Once reached, the player can't produce any more units.

To overcome this, the player can "expand" his account and buy additional limits in packs. The price should be average and well calculated in relation with the real cost and service requirements. This does allow to expand players as much and deep as they want but does not miss the fact that the more units are present the more difficult and cost intense maintaining the game world gets.

in-game ads strategies

Through base and building expansions players can build so called "ad boards" in various different styles and sizes. Those normally display imperial advertisements of all kinds. As an addition, players can rent an ad-space and can display player-created advertisement spots on them. To do so, players create their own advertisement from a given set of predefined movies and individual simple text and by paying a regular fee to the empire their spot will get displayed on all ad boards within imperial range.

As an addition, the publisher does offer a real ad-service to any company worldwide. For

example Coca Cola could pay a small monthly fee to get their ad displayed within the game. To keep the game dynamic the publisher does individually create those ads for and together with the interested company to make sure the ad does stay within the games and science fiction style. Those ads get streamed to each player dynamically into their local cache to get displayed then.

web-services

Several web-services can be present to easily allow players to get into deeper roleplay on a wide and stable platform. Such does include things like individual player and guild news within a regular role-play driven newspaper, provided and maintained by the publisher. Advanced services like lite guild management to present members and their role/status within the guild to other outside players and the ability Finally, a wide range of public services like news flash, events and server status through RSS and XML are present to allow fan sites to easily include those information into their own website.

Section X: Bibliography

what is Mankind 1

MANKIND is a game of intergalactic strategy that takes place exclusively online with an infinite number of players, divided in mortal conflicts between various player driver empires.

Your victory will require strategy, tactics and ingenuity. Colonize planets, build infrastructure in space and on planets ground, use resources to your best advantage and forge alliances to create an impenetrable fortress in the intergalactic battlefield.

MANAGEMENT OF CITIES

More criteria preside to the destiny of the cities and indicate the satisfaction of the residents :

security, unemployment, school... cities have become real independent entities whose it is necessary to take the greatest care so as to guarantee an optimal production.

TRADE

Possibilities to trade between players and with the Empire. Furthermore, fifteen different resources can be exploited on the surface of planets so as to provide to your need or to be sold at the most bidder.

- KEY FEATURES -

unlimited number of players :

There is no limit to the number of people that can play Mankind - from all around the world.

1. a game that never ends :

The conflict in Mankind places various player driven empires against each other in eternal conflicts.

2. vast battleground :

Mankind offers the largest game area ever produced with more than 277.000 different planets throughout the universe, in which players are grouped according to time zones.

Mankind Worlds

- design document -

3. real-time 3D :
Mankind is a strategy game entirely in real-time 3D, with spectacular graphics, animations and special effects. Special improved rendering for 3D accelerator cards is available.
4. huge number of units :
More than 170 vehicles and stations are available upon full research by every player.
5. you're never alone :
Players can almost share everything with other members of their empire, including vehicles, starships, stations or resources... even when players are not connected others may use their stuff.