

Orion's Arm: Modosophont

Version 1.01 - Created by Nuthenry2

Welcome to the universe of Orion's arm, a place which follows hard science and the power of compounding growth, where godly and indecipherable intellects with brains the size of solar systems called Archaiects govern over 300 million stars. This is where you are not going to, instead you'll be going to one of about a trillion polities that lack any transophont oversight.

Have 1000 Choice Points to spend on this jumpchain, you'll be staying in this jump for 10 years from your point of view.

Origins:

There are over 300 quadrillion embodied sophonts and 3 to 4 orders of magnitude more of Virtuals, all with unique histories and cultures. As such there's no backgrounds to pick, instead you can just drop-in or choose something plausible and based on the perks and items you obtained from this jump, if you want an origin.

Age, Sex and Clade options:

With the wide variety of clades age, sex and gender are nebulous terms, in some clades you could be 80 and still a toddler or could have just stepped out of a nanofab as fully formed adult. Even the possible sexes you could pick a much wider Selection, English (the descendant of the English language) have 6 recognized pronouns.

Ultimately whatever you pick is dependent on the first free purchase of the 'backup body' item as this will be your starting clade.

Location and Timeline:

The galaxy is a large place, pick or roll the general location and era you will be starting in for free with the specifics up to you or if you rolled both you get an extra 100 cp. The location will be controlled by modosophonts, even in the inner sphere that is dominated by Archaiects have buffer systems in between their empires controlled by non-aligned modosophonts and transophonts. The time you enter the jump can be from when humanity first took steps to settle off their birth planet to the current era which is just a couple of hundred years after the Oracle War. If you have trouble explaining your choices with an origin, you could have volunteered to participate in the 'Reality Intertextualization Project' and ended up in another part of the universe or alternative timeline.

Locations:

1. Inner Sphere
2. Middle Sphere
3. Outer Sphere
4. Periphery
5. Muuh Volume
6. Soft Ones Volume

7. Xeno Volume
8. Anyway you like, even other galaxies

Eras:

1. The Interplanetary Age (2093-2368 A.D / 130-400 A.T.)
2. The Solsys Golden Era (400-530 A.T.)
3. The Sundering (530-900 A.T.)
4. The Early Federation Era (900-1200 A.T.)
5. The Middle Federation Era (1200-1500 A.T.)
6. The Late Federation Era (1500-2100 A.T.)
7. The Inner Sphere Era (3200-5200 A.T.)
8. The Post Commonwealth of Empires (Post-ComEmp) Era (5200-7800 A.T.)
9. The Outer Volumes Era (7800-10,400 A.T.)
10. The Current Era (10,600 A.T.)

Perks:

You get 8 Neb Tokens. These can be redeemed to get anything you want here for free, except for 300cp which costs 2 Neb Tokens or 1 Neb Token and 100 cp.

Child of the Transapients - Free

As long as you don't actively interact with 'higher beings', they will be content with just ignoring you and if you stumble across something you shouldn't have they will just shoo you away unless they are malicious. This stops if you're shown to be able to stand on your own against them, seek them out, refuse to heed their warnings or become a threat to them. After all, many transophonts have met their end after their victims ascended to a higher toposophic level.

Engenerator Guarantee - Free / -200

The topic of the soul has been debated since the dawn of humanity and even now it is still being debated, but as a jumper your chain and a large amount of your abilities may depend on having a soul. Now your soul can inhabit your mind, data, coding or equivalent and you can choose to follow along for the ride when transferring your mind to a new body, uploading yourself into a virtual world, downloading yourself into a new body, converting your mind / coding to a different format and architecture or the like.

This even works with mind backups and data packet in transit, allowing your soul to anchored to a recently updated copy of your mind or travel the lightway network, although there are to limitations first is that your soul can only jump small gaps from spontaneous termination, so the backup cache needs to be within arms reach and without a brain / computer to run your mind on, you will be in a thoughtless suspended animation with the timer on the jumpdoc pauses until you return to a proper substrate. This comes with an Instinct for when you switch bodies to know if the method will properly kill you, thus being forced to use an 1-UP or risk chain failure.

By paying 200 cp you gain the ability to make engenerator technology that can move the soul along with mind, mimicking the effect of this perk.

Near-Baseline Mods - Free / -100

Apart from a select few every sophont has a set of core biomods, which you now have as well. First and most important is microgravity adaptation mods, this lets you live without gravity indefinitely with no drawbacks. The second is an improved immune and repair system, meaning you have complete healing which will slowly regrow lost limbs and remove scars with time, powerful immune which fight pathogens fast, stops cancer, increased tolerance and repair for radiation, allowing someone to live in space without significant radiation shielding and extend an average human's lifespan to 400 years. And last but not least is the removal of deleterious genes, meaning you'll never suffer from genetic disorders. Your offspring will inherit a non-fiat backed version that will be watered down with each generation removed from you.

This applies to all of your forms with biological parts as well. By paying 100 cp you gain the genetic engineering knowledge and experience to mass give out copies of the mods to any species and even easily modify other known gene mods for different species or even aliens.

Rejected Godhood - Free

you have looked upon the gift of ascension and have walked away. Changing toposophic levels is more than just becoming smarter, it completely changes your view of the world. A loving father could instantly divorce his wife of many hundreds of years in an Instance because from his point of view she have the complexity paper cut out or a sister moving 400 lightyears ways to study some obscure thing while leaving her family with the equivalent of a pair of jangly keys that will distract them. Additionally note that ascension is a very dangerous process and is never a guaranteed thing even with a transophont's assistant and especially with unplanned or accidental ascension events. Whenever you have a chance to 'ascend' or become 'more' or 'better', you can choose to say no and easily shut down the process with no backlash or side effects, even in the middle of the process.

Aphagist -100

The ultimate achievement of the fasting lifestyle would be to live on nothing more than water and the output of an internal fusion plant, unfortunately even the most advanced transapient tech can not achieve this. With a sufficient source of electricity (minimum of 7.5 kW hours per day for average human and abundant atmospheric resources), oxygen, water vapour, carbon dioxide and nitrogen are removed from the atmosphere and synthesised into organic compounds to feed your body, meaning all you need is some trace minerals and water daily. This applies to all of your forms as well.

Knowledge Modules -100

In the current era learning is mostly done with a DNI and skill mods, this can be a temporary affair with an installation or have it fully intertwined with an integration. You are indeed quite skilled at making skill modules of any type, that are easier and quicker to integrate and without any side effects.

Savant -100 (Multiple Purchases Allowed)

You possess a small area of intellection that is elevated to the absolute limit of that a modosophont could achieve, this 'Spike' of mental abilities gives you an instinctive and intuitive understanding of your area of expertise and significantly reduces the work hours

needed to complete the same task that a baseline would need. This scales with your intelligence and will always be a significant advantage in your chosen area and can be toggled on and off at will.

There are a wide array of areas you can pick for your spike, like cold reading or pattern recognition, but there's a limit to how 'wide' the spike can be, for Instance you can't have a generic spike in physics but you could have one in the Branch of particle physics and with tighter focus the greater your abilities are in the area.

Transavant -200 (Requires Savant, Multiple Purchases Allowed)

Instead of merely having an ability at the level of the very best of modosophonts, you take a step into the realm of the transapients. This upgrades one savant ability of your choice to the lowest levels of a toposophic higher which gives you a level of ability that is quite literally unexplainable or Inconceivable to a modosophont, even the smartest of people will not be able to comprehend or suffers mental degradation and breakdowns if they manage to glimpse the translogic behind your transavant spike. Even yourself do not know the why and how, only that if you do a particular thing in a unintuitive and convoluted way, somehow it works much better even if you have no idea about the hows and whys. This can be taken a second time on the same ability and boost it to a high transavant spike, along with being able to toggle between off, savant, transavant and high transavant levels. Note that the highest recorded spike of a modosophont is reaching into the high transapient realm which then suffered a complete psychological collapse 35 minutes later and had to be restored from a fresh backup and there are even rumours of archaisavants, but little is known of them. Your spike is fiat backed to be safe, stable and causes no mental stress or psychological problems.

Technology Module -100 (3 Purchases Allowed)

For each purchase pick three of the following categories of core technologies below, This will give you an Ultratech level in understanding the theory, use and construction of such related and overlapping technologies along with an instinctive understanding of the subject. Should you purchase all available modules you will become a Superbright and thus able to understand any modosophont sciences, although this does not guarantee speed or ease.

Nanotechnology - Atomic-scale manipulation of atoms and nano scale devices

Biotechnology - Genetic engineering and manipulating biology to perform work

Computronium - The creation of computers and the supporting structures

Artificial Intelligence - The creation of AI with varying amounts of intelligent

Robotics - The application of using AI to control of machine and creating Vec bodies

Virtual Reality - The creation and modification of fully interactive digital Worlds

Metric Engineering - The manipulation of space-time and creation of blackholes

Sophontology - Study of intelligent beings, toposophic, culture, physiology and psychology

Spacecraft - Creation of spaceships, habitats and the needed support systems

Vacuum Adapted -100

You now possessed adaptations that allow you to survive in a vacuum unaided for at least 4 hours, these consist of subdermal enamel armour which gives you protection from greater radiation, micrometeorites, low-powered weaponry and as a pressure suit, your orifice and

eyes can seal with membranes to protect your eyes and lungs, nanotech augments to recycle waste and finally considerable quantities of oxygen are stored in your blood and tissues. All these adaptations apply to all of your forms as well.

Mental Encryption -200

As technology advances, so do the ways to invade and manipulate your most important and final sanctuary, known as your mind. Your brain, mind and code that make up your being are now heavily encrypted, this straight up no sells any brute force mindjacking, memetic engineering, subliminal, nano infiltration, torture and any other manipulation to your mind, even by proxies or more esoteric means. The only way to start to manipulate your mind is to carefully study your neural architecture, break the multitude of encryptions that protects your mind and then alter their Method to take into account your protections. Of course what sort of security doesn't change their encryption keys and methods every so often, so all of their work could be for nothing if they take too long. Additionally as long as they did not fully defeat your protections, they will have a nasty surprise when you regain part of your agency when the encryption rolls over.

S-Learning -200

The Super-Learner modification is a very widely used one, and is found in sophonts of all toposophic levels all across Terragens space. By combining the learning speed of the very young with the complexity of adult into a 'two-layered' learning approach where any insight that is gained from a layer is then examined by the other for more insight, the result is a much greater learning speed and comprehension than possible with the Individual parts, allowing the acquisition of all kinds of skill, major and minor, physical and mental that goes beyond merely human levels of learning ability into fully optimised, highly efficient and literally superhuman forms of learning.

Tech-Taboo -200

A popular game where the object is to achieve the highest level of technology possible, while avoiding one or more specific taboo techs. As it turns out you are quite the master of the game, you're able to replace parts of a piece of tech with different parts to achieve the same effect. With enough effort you could do things like replace every part of dry tech with biological counterparts, this of course would not guarantee it would be effective or worthwhile. And with the right skill set you could use more esoteric means as replacement parts.

Tribe Mind -200

There are very few ways a modosophont can match up with a transapient, Fortunately you are not alone. You can now easily form a stable Tribe mind with any media, This is not a hive mind nor a collective consciousness but rather a tightly networked group who retain their individuality and work together for the betterment of a mental "tribe". With enough members the tribe will begin to show Transavant abilities, requiring about 500 baseline humans for low Transavant, 100,000 for high Transavant abilities and ridiculously large amount of over a billion for archaisavant abilities, for course you can always supplement the tribe with raw computations located on a server or something. Any Tribe minds you form have complex encryption to protect its members, fail-safe shutdowns and guarantee the members will keep

their individuality and will be safe from any strain or backlash the tribe causes on its members.

Virtual Zombie -300

It took almost 2,000 years to invent AI with modosophont intelligence and without modosophont sophonce, but with them true post-scarcity became possible as modosophont labour was finally rendered unnecessary. You now have the skill, knowledge and ability to make Vots (also known as virtual robots or expert systems) along with creating and designing 'Philosophical Zombie' versions of any of your creations, this will make it so they possess no will, agency or conscious identity of their own. As a bonus you can also create and edit sophonce AI and brains, as they are actually easier to make than expert systems along with making accurate Toposophic Mind Maps of any being, which gives a rough abstraction of cognitive ability. Your creations are guaranteed to be stable and never develop sophonce or breakdown even after millions of years of use, if desired.

Tech Safeguard -300

The Techno-apocalypse and many other disasters were the result of nanotech spiralling out of control. Now any technology you make or design can have built-in safeguards to severely limit corruption, uncontrolled mutations and unauthorised access along with self-destruct protocols, even working against more esoteric abilities. While this perk does not give absolute protection against attacks from transophonts or other powerful beings, it does significantly limit the damage they could do and will offer complete protection from technology running amok from naturally occurring causes.

Deus Ex Machina -300

Somehow you did something that an Archaiect feels indebted to you, once a jump or 100 years you can cash in a favour for its assistance in a task. There are some limits as its help will be to its discreet and subtle in nature, for instance it won't help you take over the world but will cause a sinister cabal to collapse, neogen a species if it calculate that they will be taking care of and treated fairly, provide a data packet with critical info, subtly manipulate scientists to discover breakthroughs in technology and attract investments to fund critically needed technologies or just hand you blueprints if it believe you're in a position to leverage them. Just remember that its help is sometimes so subtle that you will question if it even helped at all, only a being with intelligence approaching its or powerful prescience powers could suspect its manipulations.

Items:

All items here respawn or restock after a month retaining all upgrades and modifications if lost, stolen, damaged, destroyed, used up or sold. You may freely Import similar items. When large items are stored away they are stored in a pocket dimension attached to your warehouse so not to use up all the space and when importing them into a jump you can choose the location and to have it be just dropped into the setting, given a history and backstory or have it be constructed 'organically' during the jump, additionally you always have complete legal ownership and master admin access to your items that cannot be revoked or stolen. You may purchase an item as many times as you like as long as it makes sense.

Backup Body - 1 Free and Mandatory / -50 each

Having a body is a bit nebulous in the future, some don't even have bodies, some keep the body of birth until death or have a new form matching the flavour of the week. From sophont trees and kelp to a hive mind of millions of ant and ten cubic kilometre entirely mechanical Vec. There are some limitations on what you can pick as you body will be civilian grade meaning no antimatter, ultimate muscles or military grade weaponry and the technology available limits you to the smallest 'brain' size that can be to support basic sophonhood is about 150 cm³ or a cube 5.3 cm on each side, although you do not need to have your brain one piece, in the normal locations or even in your own body.

The body will come with blueprints, DNA templates and software needed to maintain, lightly modify and reproduce the body along with the curious effect of being able to automatically transfer your mind and soul into it as long as you're in close Proximity to it or have a network connection. Each backup body will respawn after 10 years or at the start of a jump, which ever comes first and post jump they can be absorbed to turn them into an alt form or remove them so you have an empty spare body to use. Your first purchase and Mandatory as this will be part of your origin is free with each additional purchase costing 50cp each.

Encyclopaedia Galactica - Free

This encyclopaedia provides an organised reference to summaries of Terragen knowledge, while it won't tell you about how to make certain technologies it will give you an basic Modosophont's understanding of the underlying principles. This mass of mostly reinforced data crystal comes in the shape of a book and will automatically update itself and in future jumps will download any open source encyclopaedia through the internet or their equivalences. It will respawn with data it has and never lost any, including out of date or deleted articles and previous editions, just remember that its quality and accuracy will depend on the source material.

Cybernetics Package - Free

As a citizen of the future you naturally possess ubiquitous augmentations.

DNI: This Direct Neural Interface links with your mind providing you incredible utility. You can wirelessly interact with computer systems, augmented reality, modify your mind and increase your intelligence, possess a built-in computer and many other features such as a mental backup cache and assistant AI. Comes with a knowledge patch for its operation already installed and can also be made to work with any data and communication format, truly this is the future's smartphone.

Air Dust: As 50% of the population lives near a vacuum, naturally they'll have a way to mitigate the danger. A blood based swarm of nanotech air tanks that can hold 1000 atm of gases that are capable of supporting a neb oxygen needs and remove waste gases as needed. Depending on exertion levels they can provide you with life support in a vacuum for 12 minutes to 3.8 hours and to recharge the air supply, simply breathe in an atmosphere for a couple of hours or hyperventilate for a few minutes.

Medisystems: A complex system consisting of a vast array of nanites each with their own specialisation. While there are many features, the main ones are an artificial immune system

that's capable of defending against natural and synthetic sources, rapid tissue regeneration and blood clotting, repairing and modifying DNA, minor body modification, fertility control and Biostasis (a safer and easier alternative to cryonic suspension). Come with a large updating DNA and immune database installed.

These augmentations are fiat backed to be unable to be hacked, usurped or be used to spy on you and against you. You can choose to remove them individually by willing it to happen and reinstall them or install on someone else by touching the package and willing it to happen. This package works with all types of biological bodies and will adapt to their needs, for example your Air Dush will store ammonia or methane if you need to breathe non-oxygen gases

Thinsuit - Free

A vacuum rated clothing made from nanomaterials that provides short-term protection from the vacuum, temperature, and radiation extremes of space. Consisting of a 1mm thick rubbery looking material that contains tactile sensors, nanobots for cleaning, low level magnetic shielding, nano solar cells and nano flywheels for power generation and storage. Being made from nanomaterials lets it flow in a semi-liquid manner, spending most of the time idle as an underlay for clothing but when needed it will flow to cover the wearers unprotected head and extremities, providing them with airtight protection in a matter of seconds long with a HUD display and coms systems.

Everyday Technology Package -50 each

The average citizen has access to fantastic technology, now you can purchase it too. Pick one of the following items to receive along with blueprints to make more.

Computer Node: A solid cube of computronium 15 cm on each side (about 3375 cm³), this raw cube of computer power has many uses. It can host about 16 modosophonts, run a Virchworld or just use it for its raw number crunching power. To squeeze the full power out of this node you will need to keep it cool and provide power and data.

Fastman Shoes: A pair of shoes that's made from smart matter which allows it to change its appearance and fit any size. But what makes it special is the ability to store power and charge any other devices and implants you have with smart matter cables. Additionally, these shoes will automatically walk themselves to a power station to recharge and if desired it can turn itself into a belt so it can be worn around your waist instead.

Geckotech Gloves: Not quite gloves but rather 10 square metres of a nanomaterial that can form all sorts of shapes and split and recombine. But won't make this interesting is the layer of Class 2 Geckotech, this allows it to stick to nearly any solid surface of a force of 25 kg per centimetre squared. You can form it into all sorts of shapes, like gloves or knee pads and even layer it onto other items like your Fastman shoes, Thinsuit or use it as an adhesive.

Fan Cloth Paracopter: A backpack which contains deployable fan cloth wings, these are a mesh with miniature fans that's capable of providing a lift in a modest gravity. This backpack can be used for everyday transport or for sport, while smaller less capable versions are used for emergency escape from aircraft or tall buildings. While it does use power for flight, it

can actually generate power on its own by having the wind turn the miniature fans, meaning if you can find enough thermal updrafts you can stay in flight indefinitely or anchor it to form a temporary power station.

Nanoflex Smart Paper: Made from a large number of tiny, triangular tiles linked together by nano motors and connectors which allows it to disconnect and reconnect parts and morph itself into many shapes. Each triangle has its own processing power, power storage, display, sensors, wireless networking and speaker/microphone which gives it the ability to display text, pictures, video, and games making this the Kindle of the future if a DNI is the smartphone of the future. You'll receive 10 square metres of the stuff.

Network Mesh Nodes: you have 1000 small cubes that are about a 1 cm on each side, when Scattered they will act as nodes to form an ad hoc mesh network. Each node has an array of communication methods, including radio, laser, camera, microphone and chemical messengers along with a folding antenna, solar and sensors array and extendable legs with geckotech feet. When spread out the mesh network can cover quite a large area as they have a minimum omnidirectional range of a kilometre in a crowded habitat and can cover part of a solar system if they have direct line of sight for laser communication.

Omnitool: This device is made from smart matter with a huge amount of reconfiguration, which gives it hundreds of different functions. Basic functions consist of simple mechanical actions like hammering, cutting, sawing, screwing, drilling, milli scale manipulation, etching, carving, scrubbing, wiping, planning, bracing, lifting, forming containers, lasers, plasma cutters, voltmeters, magnetometer, spectrographs, RADAR/LIDAR measurement, chemical analysers, chemical synthesisers, ultrasound emitters, genesticks, mechanosynthesis annealers/disassemblers and many more.

Pocket Fabricator Watch: This smart watch it's actually a portable fabricator, when idle it will act like a smartwatch and provide additional computing power for devices like a DNI but when needed it will split the casing in half and inflate a 10 cm³ fabrication chamber. Due to the limits of nanotechnology it's fairly limited in speed of creation with a construction rate 10 grams per hour under ideal conditions with plenty pure feedstock and not accounting for the time it needs to reconfigure itself, and its limited storage space is about 95% full of the schematics and software need to build and run common everyday items and gear for survival situations. While it seems limited in use, with enough time and patience you can rough it out in some pretty bad situations or kick start the local tech level.

Thicksuit: Unlike a thinsuit, this piece of gear is made from thicker material along with having a solar sail, photovoltaic array, strength amplification and a bionano system to recycle your body waste. In all this is designed to provide the wearer with protection from the hazards of space for several weeks at a time and up to 3 years if the user enters stasis.

Utility Smart Matter: A swarm of micro robots that work together to exert force on the local environment, display images and transmit information between each other. There are 3 main types of utility matter, Fog which is used to act as gravity, provide locomotion in microgravity and as a temporary avatar for virtual beings. Fluid which can form shapes from the liquid it's suspended in and as a shock absorbent gel. Sand which can form buildings and can be

used as an abrasive to scrub you clean. You get 50L of each of the 3 types in a compressed storage form and will automatically replace any worn out or damaged bots.

Pet -50 Each

Owning pets is an activity that is quite common among intelligent beings in the Terragen Sphere, in fact there are a huge variety of possible pets especially when you take into account all of the natural, genemoded and build species. You may pick any sub-sophont that is intended or is modified to be a pet that is made with a maximum level of ultratech technology and yes you can have a sub-sophont human, you weirdo. The pet will always be sub-sophont unless they are imported as a companion that's sophont itself, possesses various safety instincts for living in a modern world, comes with care supplies and a months worth of food.

Feedstock Cache -100

The economics of over 300 million star systems is complex... very complex. But fortunately one thing is universal, until someone figures out how to create matter or energy Ex Nihilo they will always have at least some value. You will receive a monthly stipend of 1,000 kg worth of any baryonic elements on the periodic table and a million megajoules (277.8 MW hours) of energy, both of which will be spontaneously created when needed and will appear when and where it is needed, like in an auto fabricator, bank, stock market, powering machinery or nearby in a box. Each purchase doubles the matter and energy you receive each month.

Monopole Cache -100

This small couch-drop size cache contains both north and south stable massive monopoles along with simplified and easy to build but inefficient blueprints and software for a breeder accelerator and a small conversion reactor.

What are monopoles you ask? Originally created by high transapients by improving monopole production by giving them mass and thus long term stability, after creation it was found it be Incredibly easy to duplicate more by simply colliding them together at relativistic speeds and soon became cheap to produce even by monosophonts, thus mostly ending the use of antimatter. While they can be used as magnets, propulsion, cheap passive magnetic screening but the most game changing part is when Injected into a plasma will catalysed nuclei into mesons and photons, thus turning matter more or less directly into energy.

As a bonus to prevent proliferation, you can choose to manually or set triggers to cause any monopoles, monopoles from fiat backed items and monopoles created from this cache to evaporate in a burst of Hawking radiation. You have a microscopic amount of monopoles but this is enough to run 5 of the reactors while breeding more with 20 accelerators. Just don't let north and south monopoles touch or they will mutually annihilate like antimatter.

Omnicraft -100

A enthusiast grade omnicraft is an all-terrain boat sized vehicle and Habitat and by that I mean ALL-terrains. Constructed of a combination of nanotechnic materials and smart matter that permits them to reconfigure themselves in a variety of ways, making it capable of sailing on water, crawling over land, floating along with lifting bodies and even as an in-system

spaceship. This one in particular is a high end version and can launch from a planet, survive an Jovian atmosphere, be submerged deep under water and even make a trip to the local oort cloud, additionally it possesses a small conversion reactor for all of its power needs. Note that some configurations will require time to manufacture materials and machinery, additionally there are some things that cannot be reconfigured like monopoles which are used for propellant and need to be supplied from external sources.

Singlehab -100

A singlehab (also known as Space Cottages) is a self-contained space habitat designed for long term occupation for around ten to twenty sophonts. There are many designs from the string and buckets to create artificial gravity, Inflatable Bubbles, inside out Vacuum Reefs or just a conglomerate of random modular units. But Whatever you pick it will have the following features: comfortable living quarters with furnituring, radiation protection, life support, waste recycling, food production, self-maintenance and cleaning, autofabricator, air locks and docking ports, RCS thrusters, emergency escape pods that can enter an atmosphere, a small fusion reactor and all sorts of little things a hab needs. This does not include any transport to the hab, but a bonus due to its smart matter construction which allows it to radically reconfigure its structures on the fly, with all the smart matter needed seemingly coming from nowhere, although this effect is limited to the creation or deletion of 1m3 smart matter per day and up to a maximum volume of 100,000 m3.

Asteroid Belt Mining -200

Asteroid mining is the most common way to gather resources and is the first thing to set up when Colonising a new star system due to ease with which resources can be accessed. You now have the mining rights to part of an Asteroid belt, Kuiper belt or Oort cloud (wherever is the most convenient for the jump) weighing about 1% of mass of Earth (about 65 million Gigatons) that regenerates after 100 years. Curiously this patch seems to possess trace resources foreign to the universe, It will contain raw resources that could possibly be found or makes its way into space from previous jumps you've been here and updates with all future jumps. The rarity of the special resources is dependent on how much effort it takes to make it or its natural rarity, very easy and self multiplying resources would have at most a gigaton while the rarest of the rare could have just a flake of the stuff. Naturally it will contain an amount of Monopoles and a couple of tons of picometer size magmatter flakes, Although they'll be quite a pain to find and you'll be better off producing your own Monopoles for a reliable supply then relying on mining them.

Megastructure -200 / -300 / -600

There are an untold amount of vast structures sprinkled throughout the Terragen Sphere, So instead of listing hundreds you may just pick which one you want instead with the exception that it must be made with a maximum level of ultra tech technology (aka modosophonts must be able to make it). The structure you pick may have its own ecosystem and infrastructure but will lack any sophonts with all systems being run by sophisticated and mature AI expert systems.

For 200 cp you are limited to the size of under 1,000km in it longest dimension, although there are two exceptions, first are long and thin structures like Beanstalk, light Orbital Ring (Not capable of holding up a city) and Lofstrom Loop are limited to planetary size instead

while something like a road tree network is spread over a small continent. The second is that if it's capable of interstellar travel or reaching a speed of around 0.01c or faster its size will be limited to a maximum of 10km.

For 300 cp you can pick structures that compare the planets in scale instead of just islands. The rules are that you can pick any Megastructure in size like a McKendree Cylinder, with the exceptions that if it needs a star or an equivalent mass to remain stable or as an integral part of the design like a Dyson Swarm, you must pay an extra undiscounted cost of 300 CP.

Lightway and Beamrider Network -200

The webs of Light that spans light years across the void is the backbone of galactician civilization, can now you have your own segment of it. The communication part of your network consists of a web of in-system Laser Comms and Interstellar Laser Comms pointed at nearby stars, while the transport part consists of smaller system Boost Beam arrays and large Interstellar Boost Beam arrays. What are Boost beams you ask? They are stations that accelerate self-maneuvring smart dust micropellets to nearly light speed. When these pellets impact a craft's magnetic plasma sail, they vaporise and transfer the momentum to the craft and accelerate it to a significant percentage of lightspeed, they also have pushing lasers for use with light sails. Your networks are guaranteed to be virus and hacking proof, 100% data Integrity and will play well with the 'Engenerator Guarantee' perk or similar abilities along with integrating FTL technologies.

This comes with all star systems within a 20 light years radius around your starting location (around 100 stars systems) populated with a network of both types under your control and can be expanded as needed plus each of your fiat backed planets, megastructures and star systems you own are covered by dedicated stations as needed.

Civilization Archive -300

This monolithic sphere approximately 10 m in diameter contains an archive of an amalgamation of Ultratech civilizations and can boot strap any polity to an ultratech level. This contains but is not limited to technological, scientific, social, legal and language information along with biome, blueprint, clade, gene, software, skill patch, common games, viruses and vot templates databases. This archive has a dedicated librarian vot that is designed to organise the data and to help you find what you need, can interface with a DNI to download skill modules and quickly access knowledge and finally you can add an infinite amount of data to be stored on the archive and fiat backed it against loss.

Polity Megacorp -300

The meaning of a government and a corporation is blurred as one could become the other and back again with time. Now any sophonts, property and business you control or ownership will follow you into the next jump, unfortunately if anything or one is killed, damaged or destroyed they will not follow you to the next jump, so try not to get your civilization wiped out. Being with sophonthood will count as non-respawning followers, processed a non-fiat backed version of both 'Engenerator Guarantee' and 'Near-Baseline Mods' perks and gain temporary 'Pseudo souls' if the jumps meta requires one. Due to the contents of your empire or business not being fiat backed any sophonts can leave if desired and businesses can fail but fortunately this 'item' gives some resistance to memetic pressure

so your polity won't be dissolved by larger empires. If you have or obtain another fiat backed empire, land, Infrastructure, business or group of followers, you may freely import and combine them into this item to provide them with the boons this item gives.

Companion Options:

Recruit Anyone - Free

Free! Anyone you want to recruit in this world is free to join you as a companion if they agree. This is a perk you can use in future jumps.

Pack Rat Spore - Free

A long time ago an aioid decided to live by the saying "live forever or die trying" and thus copied emself many times over along with trying every method to prolong their existence indefinitely. One of these spores has heard of your existence and enthusiastically decided to follow you on your jumpchain adventure, although do note that there will be large amounts of offshoot spores infecting the jump when you move on to your next jump.

Import -100

You can import a companion of your choice and they'll get all the freebies, 300cp and 4 template tokens to spend as they like.

Drawbacks:

Ascension Embargo - Free and Mandatory

You are barred from Ascension or Transcension and locked to a modosophont level, even if you try you'll just find that you hit a wall that you can't break through.

Continue Mode - Free

By taking this drawback, you may retain any changes you have made as a result of your existence here into other Orion's Arm jumps

Longer Stay +100 (Multiple Purchases Allowed)

You'll spend 5 more years here. By taking it again 10 years will be added to your stay and will double each time after, up to a maximum total stay time of 10,600 years.

Companion Lockout +300

All companions are sealed away and cannot be imported, any companions gained during this jump will not respawn until after the end of the jump.

Item Lockout +300

You can't use items from outside this jump in this jump. Or access your warehouse.

Power Lockout +300

You can't use powers from outside of this jump in this jump.

Ending Options:

What will you do now? Stay here? Go home? Move on to the next jump?

Notes:

Visit the website for more info:

<https://www.orionsarm.com/>

<https://tvtropes.org/pmwiki/pmwiki.php/WebOriginal/OrionsArm>

Change log:

V1 - initial release

V1.01 - Spelling fixes, changed 'Ascension Embargo', 'Virtual Zombie' now includes designing, Clarified 'Savant', added perk 'Rejected Godhood'.

A.T. = After Tranquility, when Apollo 11 mission achieved touchdown on the Old Earth's Moon on July 20, 1969. 2098 AD = 130 A.T.

The perks that apply to any 'form' means that they will still work with any alt forms, power-ups, alt-modes or even if you get magically transformed.

Longer Stay = 100cp = 15 years, 200cp = 25 years, 300cp = 45 years, 400cp = 125 years, 500cp = 285 years, 600cp = 505 years, 700cp = 825 years, 800cp = 1465 years, 900cp = 2745 years, 1000cp = 5305 years, 1100cp = 7865, 1200cp is over the time limit

Intelligence:

A baseline human is S0.3, Super Bright is from S0.4 to S0.9 although buying all the knowledge modules will make you a S0.4, with salvant you will be S0.999 In your selected area. The Difference between S0.4 and S0.9 is the amount of work hours a being can do in the same amount of time. The 'Transavant' perk scales with your toposophic level if you become a transapient in another orion's arm jump.

Knowledge Modules:

This works with different methods of copying skill onto someone and you can make skill mods of magic, but it won't be able to give someone the ability to use it if they lacked the ability.

Philosophical Zombie:

If your capable of modifying / creating a soul, you can make false / Imitation 'Soul'

Tech-Taboo:

Yes, you can make Magitech or Psitech if you can Imbue magic or Psi into objects

Terragen - Anything that either originated on Earth or, more generally, can trace their ultimate origin and ancestry back to Earth.

Terragen Sphere - The region of the galaxy that has been colonised or explored by Terragen sophonts, approximately 14,000 light years across with over 300,000,000 star systems

under control and houses 78 quadrillion bionts, 310 quadrillion abionts and 30 to 3,000 quintillion virtuals.

Orion Arm humans have 6 sexes:

Female, Male, Hermaphrodite, Ferm (female with male sexual characteristics), Merm (male with female sexual characteristics), Neuter

Terms:

Sophont - capable of self-awareness, including self-reflection and planning their own future.

Provolve - an animal gene modded to have sophonhood

Neogen - a sophont being that was made from scratched

Biont - biological based sophont being

Abiont - non-biological based sophont being

Virtual - software sophont being

Vec - a sophont robot

Angelnet - a smartmatter network designed to keep residents safe

Synsects - robot insects

Interesting clades to pick:

Albertosaurus sapiens - large dinosaur provolve

Alseid - Provolved tree

Anttechians - Ant based hivemind

Bright Cats - Bioborg cat provolve with a lot of subclades

Calebs - Provolved Dogs

Changeling - Cyborgs who have biological bodies but an artificial processor

Enhanced Dolphins - Provolved Dolphins

Hellspiders - Vecs optimised for function on the inner surface of Suprastellar shells

Hian Dao - Omniborg (contains animal, plant, and robotic parts)

Homo Superior - completely remade the human form with the most advanced biomods

Methanoids - Methane-respiring cold-adapted extremophile humanoid neogen

Near-Baseline Humans - humans that been genemodded, one of the most common neb

Octoperiors - Octopus based superiors

Raffin - 1.5m tall rat provolve

Shogs - Gelbot-like vec clade

Synthetic Human - Human androids, with nanotech organs it near impossible to tell

Tilonians - Sailing yacht vecs

Ton-E-mite - Sophont termite mounds with the termites acting like theirs ears and eyes

Pets:

Babel fish - Air breathing fish that is used as a external DNI

Buildbug - a 30cm woodlouse made for construction of biological materials

Homo parvus - human subspecies created as pets or toys with limited sentience

Mamster - a Mouse / Hamster splice

Micromastodon - 1.5m tall wool elephant like being, lives in ice age conditions

Nanopet - a swarm of friendly utility fog, act like a personal angelnet

Spiderpet - a spider that's as long as your arm, popular in the Zoeific Biopolity

Velvet Snake - genetically modified leg-less ferret

Megastructure 200cp:
Akilaspek Tree Forest
Arcology
Atmospheric Thermal Energy Tower Plant
Aysee Tent
Bernal Sphere
Conversion Giga-Power Plant
Deep Well Industrial Zone (Uses nucleosynthesis to generate heavy elements)
Dome Habitat
Dyson Tree Variant: Wagon Wheel
Freesphere
Intra-habitat (a habitat meant to go inside another habitat)
Interstellar Singleship (interstellar ship for 1 to 5 sophonts, can reach 50gs of acceleration)
Ocean Thermal Energy Plant
O'Neill Cylinder
Road Root
Solar Moth (Small private space ship)
Stanford Torus
World Ship (Huge nomadic interstellar ship, moves at 0.01 to 0.1 c, 10km max size)
Yggdrasil Bush

Megastructure 300cp:
Angelnets
Artificial Planet
Bishop Ring
Civilization Ship (like a World Ship but in the 100 km+ size)
Deep Well Industrial Zone around a gas giant
Ederworld
McKendree Cylinder
Planet
Ribbon World (low gravity ring habitats around a planet, can be combined with a shell world)
Sunline (Gas Giant with self-replicating fusion / conversion reactors to make an artificial sun)
Supramundane World (aka Shell World or planet with multiple layers)
Worldhouse (Nano or Bio versions)

Megastructures 600cp:
Buckminster Dyson Sphere (many McKendree Cylinders linked into a Geometric shape)
Dyson Swarm
Niven Clouds (Smoke Rings)
Rung World (over 100 McKendree Cylinders linked together around a sun)
Solar System
Suprastellar (aka Shell World but over sun)

Megastructure not allowed:
Anything containing magmatter
Banks' Orbital
Hypernode (disassembled star which turned into a mass of conversion reactors to replace it)
Wormhole Pair

Rough Timeline the beginnings:

91 - First Lunar settlement

196 - Completion of a space habit that hold 10,000 Sophonts

484 - The first interstellar colony ship was launch

621 - The Great Expulsion

1010 - Utility fog becomes commercially available

1200-1500 - Monopoles were developed

1750 - The first Terragen ascended to the third toposophic level