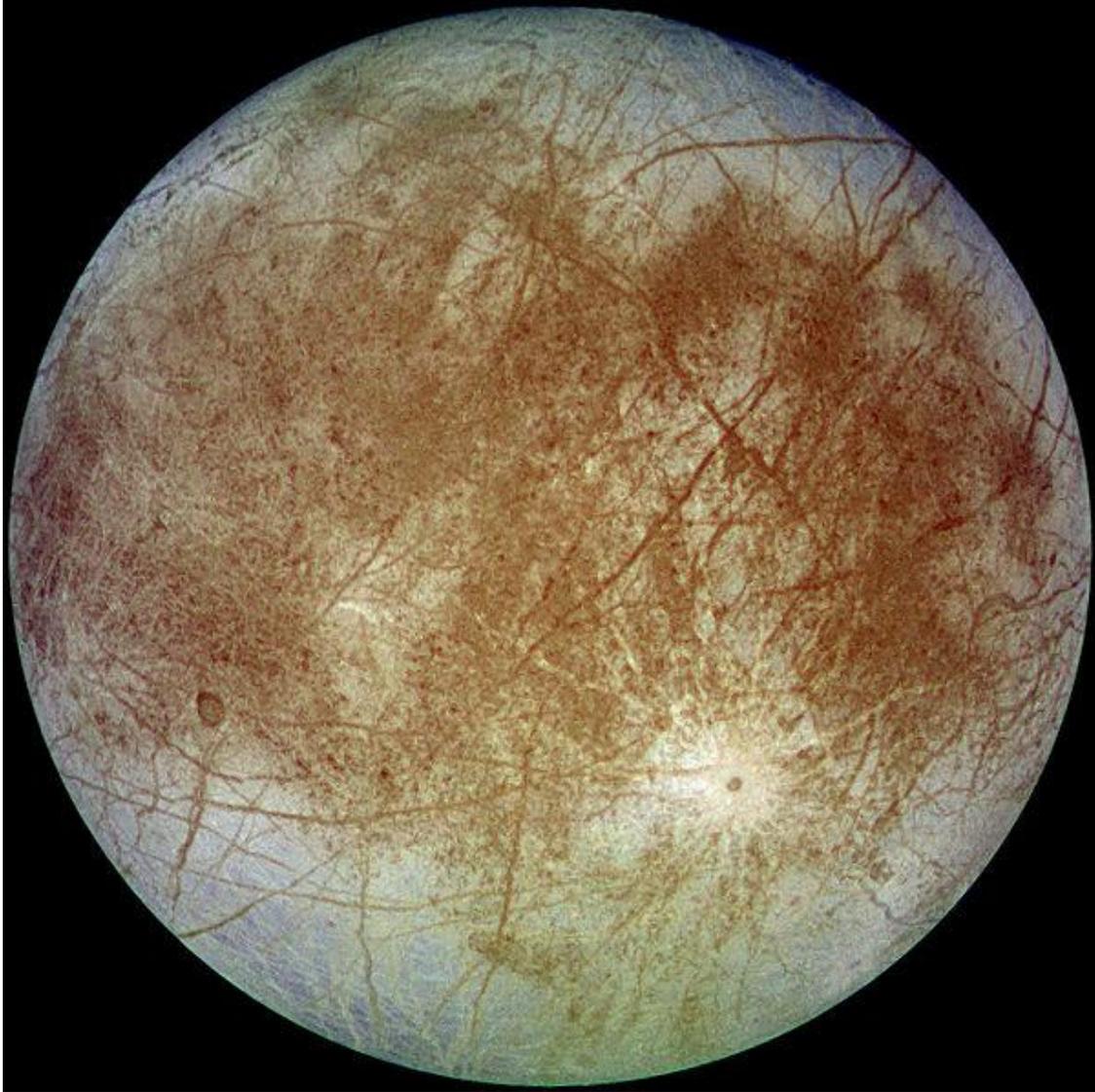


Europa of Jupiter

A universe of fantastic adventure, set within Earth's reach.



An Introduction to the World

Europa of Jupiter takes place in the year 2500 A.D., years after Earth has been unified under one government by the WN (World Nations) as a response to the discovery of other life in our solar system. As you can probably guess from the title of this game, the intelligent life came from the planet Jupiter's Moon, Europa. Underneath its icecaps, vast undersea cities were discovered, or rather shown to the people of Earth. This caused the expected panic and disorder which led to the rise of the WN, headed by China, Japan, India and then later on the United States and the EU. The WN started as a strict law enforcement agency and simply provided a form of order and protection to its citizens. Once the entirety of Earth had joined, the WN turned their attention skyward, and made a concentrated effort to have a legitimate space program. By 2200 there was a full time manned settlement on the Moon, and by 2250 one was started on Mars.

But what about those aliens?

It seems the Octopods (a name coined for them by the Earth citizens), had a civilization much like the one found on Earth, but under their planet's ice shelves. During their routine space exploration programs, attempting to determine if they were the only intelligent life in the solar system, one of their probes made it to Earth and crashed. It was found, analyzed, and the transmission source was found. Soon a bombardment of transmissions was sent towards Europa, and the two races have mutually discovered one another by accident.

Here is where things get tricky. Remember, this is all 250 years in the past. What about today?

Today, the Cephaloids (or Octos) and humans have a very mutually beneficial relationship. Tourism is in high demand for both races, although special suits are needed, and trade generally flourishes. All sorts of goods commonly found on Earth have become a luxury industry on Europa, and vice versa. Pet Pigeons, Corn, Paper... all sorts of Earth things commonly thought of as mundane have established a very profitable trade system. Many Octos even have moved to Earth and live without suits in the oceans. (Some humans have moved down with them in a variety of undersea cities). The Mars settlement has even turned into a joint project for terraforming, with the goal of filling its vast craters with oceans, and let the Earthlings live on the surface. Still though, this doesn't make an amazing setting right? Where is the conflict?

In 2450 contact was made with a third interplanetary race known as the Xict'ix. It seems Mars is exactly like their old planet, the one they left because its sun went supernova. They landed, and have set up shop. So now that settlement on Mars, and all the hopes of terraforming it have been put on hold. After all, "destroying the natural environment" would mean extinction for this race of sentient beings.

To make things worse, the Xict'ix seem to have a weird concept of ownership. Lots of those profitable space trade ships, and even the space tourists, have been turning up missing, and many fingers point to this late coming race.

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How Do I Play?

What is an RPG: In an RPG, each player takes the role of a PC, or player character. This PC is their representation in the game world. Most RPGs require multiple players and this one works best with 3-5 players. Europa also requires a Game Master. This is a separate player who runs the game world. Their job is to control all the non-PCs the players may encounter. While this does include the enemies, it also includes allies. While the GM does control all enemies and typically is rolling directly against the players, this shouldn't be seen as an antagonistic relationship. The best GMs are the PCs advocates, providing suggestions on strategies, and advice on character builds. The GM is also important because they do not get a PC. Instead, they are asked to govern all rules of the game. When the time arises where the rules do not cover something, the GM is tasked with making a decision. While the GM does make the decision, they should take suggestions from their players. A player knowing the rules better than the GM is not a problem, and the best GMs are able to use this to their advantage.

What Do I Need: Europa uses a very simple system of increasing dice. To play the game, you need a variety of dice: four sided, six sided, eight sided, ten sided and twelve sided. These are abbreviated as D4, D6, D8, and D10. That said, dice aren't important; a group can use any random number generator that gives results from 1-4, 1-6, etc. Other methods include playing cards or an automated die roller.

The game also uses a gridded map, and references distances as squares on this map. A square represents roughly 5ft. A variety of maps are produced by game supply companies, but simple graph paper works. It is also handy to have a representation of your character on this map. Anything can be used for this from paper chits, to pennies, to Legos, but lots of players like to have a personalized miniature from a specialty gaming store.

What Do I Do: Your character does whatever you think appropriate or interesting. You announce your actions to the group, and the GM will inform you of any checks needed. Making a check is detailed later on, but typically is simply rolling the indicated die and comparing your number vs. a Target Number. If you equal or exceed the TN you are successful.

Resolution:

The main resolution system for this game is based on rolling to hit a Target Number. That TN is generated by the GM, or, in cases of direct conflict, an opposed roll. The goal is to roll equal to or greater than the target number. In the case of an opposed roll, you simply need to roll higher than the opponent; whichever side rolls higher succeeds. For the default on most things, characters will roll a d4, most characters have special circumstances that allow them to roll a bigger die.

Die Size Progression

D4-d6-d8-d10-2d6-2d8-2d10-3d6-3d8
(Progression continues indefinitely.)

Reduced Die Size Progression

D4 – D4-1 – D4-2 – D4-3 – 0

Combat Rules

Combat in Europa is fairly simple. It is a quick opposed check, the attacker's skill (melee or guns) vs. the defenders dodge skill. Whoever rolls higher wins. In this case, winning is defined as hitting or dodging.

If a melee or ranged attack is successful, the damaged player takes a cumulative -1 penalty to future Fortitude rolls this fight. They then roll a Fortitude check vs the TN

set by the weapon. Failure results in unconsciousness, success means they can act normally. At the end of this fight, or encounter as determined by the GM, all -1 penalties disappear. This typically requires a moment to catch your breath, and possibly apply some first aid.

Melee Combat- Melee Skill vs Dodge Skill.

Ranged Combat- Guns Skill vs Dodge Skill.

Resist Unconscious- Fortitude vs damage rating of the weapon.

A character can move and attack in the same round. A character can also move twice if they prefer, but can never attack twice unless using two weapon fighting.

Building a Character:

Start with 20 Build Points (BP). Pick a race. Choose stats. Pick skills. Lastly, choose items.

Races:

Cephaloids (Octos)

Natives to the planet Jupiter's moon, Europa, the Cephaloids live in vast undersea cities deep beneath the ice covered surface. They are roughly at the same level of technology as the humans from Earth, and have a very positive relationship with them based largely on trade. Their women resemble large squids, and the men octopi. The head is usually 3ft in diameter, with eight 5ft tentacles. The women have two additional longer tentacles up to 7ft. They travel across the ground out of water by walking on all 8, but those in contact with humans frequently chose 1 or 2 to act as "Hands" and walk on just 6 or 7. In their society the men tend towards professions like thinkers, homemakers, heads of households, and government while the women tend towards the military, business, and lawyers. They communicate through a series of bright color flashes with varying durations and colors meaning different things, although, their beaks do allow for the human language, and many have picked it up. Most though, prefer to speak to humans through a translator box. Cephaloids do not tend to resent their nickname, the Octos, but do find the consumption of the more intelligent squid and octopus offensive (akin to eating apes).

- Aquatic
- Increase to either Smarts or Wisdom (player's choice)
- Free Increase to the Notice and Sneak skills.

- On Land Move speed is 4 squares, in water 6.
- Because of the lack of bones or cartilage in most of their bodies, they can squeeze through holes as small as 6 inches diameter.
- Swim without checks.

Humans

We all know humans. You can be any color, race, and ethnicity you want.

- Their move speed is 6 squares. If swimming, it is halved.
- They gain three additional skill increase of their choice during character generation. These increases can go above their stats unlike normal. This is the exception to the normal rule.
- They have one skill they are focused on. This skill is increased twice. These increases can go above their stats unlike normal. This is the exception to the normal rule.
- Air Breathing.

Xict'ix

Survivors of crash landing on Mars. They have been inside a giant hive ship for as long as any of them can remember. All they know of their origin is that the planet's sun went super nova, and as a last ditch effort at preservation their race gathered into this hive ship set for auto-pilot to the only known similar planet. The expedition left thousands of years ago. It crashed onto Mars 50 years before the setting takes place, and they have been slowly filtering into the system. Most choose to live in the crashed ship, which apparently had some "city construction" programs enabled. As soon as it crashed it began to build some small offshoot settlements surrounding it

and connected to it. They tend to be xenophobic, and live in their city; some adventurous few have found homes within the human and octo settlements. Their technology was far above both the humans and octos, but they have lost the skills involved. Now they jury rig their old space vessels and nurse their super advanced tech along.

Physically, the Xict'ix stand 5ft on average, are covered in a thick deep emerald green carapace. This carapace has been known to shift into shades of red as the Xict'ix age. Like humans, they have two arms, legs, and eyes. Unlike humans, they have no visible mouth or nose, but rather gill slits just below the neck on each side. Males and females are virtually indistinguishable, and jobs are assigned mostly based on need at a given time.

- Increase to Fortitude Stat.
- Don't need to breath. Can survive in a vacuum indefinitely.
- Their move speed is 6 squares. When swimming it is halved.
- Free increase to "Ship Flight", "Resist Influence" and "Sneak" skills.
- Typically need a body temperature regulator to exist comfortably within an atmosphere on most planets. Mars is apparently most similar to their home world, but they can exist in deep space. Many moons, or planets without a layer of greenhouse gasses are ideal.

Stats:

All characters start with a d4 in all stats unless otherwise noted by their race. Increasing a stat costs an additional 5 Build Points (BP), and no stat can start above d10 after racial bonuses. Your stats can be

called on directly for a check outside of an existing skill, or more often, serve as a limiter for any skill. A skill cannot be increased higher than your stat.

Fortitude:

Physical Durability. How durable you are, and how resistant you are to damage. This stat is tied mostly to combat skills.

Agility:

Physical Dexterity. This governs how agile you are and your fine manipulation. Things like dodging, reaction time, and ranged combat are governed by this. This stat is tied to mostly combat skills.

Smarts:

Mental Knowhow. This governs what all you know about things. This stat is tied to mostly non-combat skills.

Wisdom:

Mental Toughness. This governs your force of will and general determination. This stat is tied to mostly non-combat skills.

Skills:

Each time you purchase a skill, it costs 1BP. A skill can be purchased more than once. You can purchase a skill 3 times at the start of a game. You cannot have a skill ranked higher than its associated stat. When you purchase a skill, increase it from d4 to d6 for the first increase. To d8 for the second, and so on. All skills start at d4, for everyone, and this represents the basic untrained attempt.

A skill check is simply your die rolled against a target number. Below are some example target numbers. If you are not sure whether to use faction score or a skill, default to skill

rolls. A skill roll is used when dealing with an individual on something they personally can do for you. A faction roll is used when determining something a group as a whole can do for you. When talking with the president of a company, you could attempt to ask him to hide you from detection with a persuasion skill. He would then attempt to hide you within something he personally controls. If you asked him with the Faction score, you are appealing to his duties as president. If successful, he would have someone from the organization smuggle you out, hide you within one of their warehouses, or something along those lines.

TN 0= So easy everyone can do it every time.

TN 1= If nothing is distracting them, everyone can do it every time.

TN 2= Most people can be expected to be able to do this, if they focus.

TN 3= Most people can do this with training.

TN 4= Most people can do this if they are super lucky.

TN 5= Impossible for most people to do this without help.

TN 6= An expert can do this if they focus.

TN 7= A couple experts can do this.

TN 8= PhD in the field can do this if they focus hard or get lucky.

TN 9= A few PhD's can do this, if they cooperate.

TN 10= Close to impossible for a single person.

Opposed Skills: An opposed skill check is required whenever you are using a skill and someone is attempting to counter it with a skill of their own. Your TN is simply set by the result; whoever rolls the higher die wins, and gets to choose the outcome of the actions.

Multiple people attempting a skill check:

All parties in this skill make an check and combine the results together. EX: Your buddy is trying to use the "lie skill" to trick someone, and he rolls a 1. The TN was 4. You can help him out a little bit, and roll a check as well. You roll a 3. You can then add your numbers together, and figure it out as a team. Doing this gives you a 4, which just meets the TN.

Acrobatics (Agility): any sort of jumping, tumbling or acrobatic action.

Animal Handling (Wisdom): rolls made to handle animals.

Art (Wisdom): Choose a form of art. This skill can be chosen multiple times for different forms of art, if so treat it as a new skill each time.

Athletics (Fortitude): climbing, or any other physically demanding tasks

Computer Defense (Smarts): keep information secure and keep hackers out of your computer

Computer Infiltration (Smarts): get into secure information.

Dodge (Agility or Wisdom): This skill is limited by agility or wisdom, whichever is higher. It is used to dodge attacks. This is a combat skill.

Fix (Smarts): This skill is used to repair broken objects. A broken ships door falls under the fix skill, but a broken ships engine or other "critical feature" of a ship is governed under the Ship Repair skill.

Gamble (Wisdom): Betting and games of chance. This is primarily used to gamble, but it can be used to judge the odds of a given situation.

Grenades (Agility): This skill can replace attack rolls when used to attack with grenades. This is a combat skill.

Guns (Agility): This skill can replace attack rolls when used to attack with guns. This is a combat skill.

Lie (Smarts): make someone think untrue things. This is usually opposed by “Resist Influence”. This skill is called for regardless of how convincing the player in question is. It represents their PC’s actions. This works both ways, whether the player personally happens to be a great trickster or not. This should not discourage roleplaying, which should be its own reward.

Medic (Smarts): This skill is used to treat any variety of disease, sickness, or serious injury.

Melee (Fortitude): This skill is used to attack with melee weapons. This is a combat skill.

Non-Native Language (Smarts): speak a language that is not your native one. This skill can be taken multiple times as a different language. If so, treat it as a new skill each time. (Note: Learning to speak Octo is next to impossible, but a crude form of sign language does exist)

Notice Things (Wisdom): Used to notice hidden things. It covers general awareness of your surroundings, but can also govern your memory of a specific thing.

Persuasion (Smarts): To convince someone to do something for you.

Planetary Vehicles (Wisdom): pilot land or sea based vehicles

Resist Influence (Wisdom): This skill is used to pick up on lies or deceptions.

Sabotage (Smarts): This skill is used to sabotage working technology or gadgets.

Science (Smarts): Pick a type of science, you get to know things about it. Can be taken multiple times as a different type of science. If so, treat it as a new skill each time. (Typically any “Major” in college is a science skill)

Ship Flight (Wisdom): Used to pilot your ship. It also functions as the dodge skill for ship to ship combat.

Ship Gunner (Wisdom): Functions as the attack skill for ship to ship combat.

Ship Repair (Smarts): This skill is the only way to repair a damaged ship.

Sneak (Agility): This skill allows a character to sneak past things, or hide things. It is usually opposed by Notice.

Space Walk (Agility): This skill is used to move around in space outside of a ship.

Swim (Fortitude): This skill is called on when attempting to swim in hard situations outside of the normal controlled environments of a city.

Other (Any): Any other skill that you think would be handy.

Advancement:

Advancement in Europa is fairly simple. At the end of every session the GM should award additional build points to the players. Typically one or two depending on how much was accomplished this session.

Accomplishing things in Europa does not mean killing monsters. Many very successful sessions happen without a single combat at all. All PCs should have goals that their players are working towards. These goals can be far reaching and take an entire campaign, or they can be short term and last for a session or two. Both are fine, and accomplishing them is a significant thing. Often times these goals involve battles and that is just fine too.

GMs should also feel free to award more BP for awesome sessions or less and even zero for shorter or unsuccessful sessions. The recommendation is about one BP for every 2 productive hour of the game.

Two example sessions worth 2 BP.

EX1: The group meets up at 2PM to play until 10PM. The plan is for a marathon session to finish the game. Bill runs late and the group waits for him, and he doesn't arrive until 3. They chat for half an hour and then start at 3.30PM. The group realizes no one planned for

dinner at 5, and debates until 6 about what to do. They end up running to a local fast food place and resume the game at 7. Anne remembers she has to work the next day early, and has to leave at 9 and so the game is called early.

- This group has 3.5 productive hours.

EX2: The group plans to meet from after dinner until 10PM. They mostly arrive at 6PM, and chat for half an hour catching up. The GM starts the game at 6:30 once the last person arrives. They play continually until 10PM. Even though people are still interested in staying, a few mention they should head out and so the group switches focus to chatting until around 11PM as people leave.

- This group also has 3.5 productive hours.

This isn't to imply that one group is better gamers, or doing it wrong. Simply that they both accomplished roughly the same amount of advancement.

BP awarded at the end of a session can be spent immediately, or saved up for future purchases. They are spent as normal for character creation and represent the characters progress.

Items:

Characters start the game with 4 items each. It doesn't matter what 4 items they want, but they only get 4.

Civilian Guns - Anyone can purchase or own one legally.

Pistol- Any variety of pistols. TN 1, accurate firing range 6 squares. One handed.

Rifle- Any variety of rifled gun. TN 1, accurate firing range 15 squares. Two handed.

Shotgun- Any gun that shoots pellets or shot. TN 2, accurate firing range 6 squares. Two handed.

Military Guns- Members of the various militaries can own and wield them legally.

Pistol- Any variety of pistols. TN 2, accurate firing range 6 squares. One handed.

Rifle- Any variety of rifled gun. TN 2, accurate firing range 15 squares. Two handed.

Shotgun- Any gun that shoots pellets or shot. TN 4, accurate firing range 6 squares. Two handed.

Grenades- Thrown explosives. Deal damage to the target hit, and all adjacent creatures. All must make TN 3 checks.

Melee Weapons- Any form of melee weapon you want it to be

One Handed- TN 2

Two Handed- TN 4

Unarmed- TN 0

Computers – Most computers are tablet PCs, but high-tech computer focused PCs may choose to have a dual screen tablet that functions similar to today's laptops.

A note about the Internet: During the establishment of the Earth Nation, the internet changed from what we know it as today. It is no longer a global network, but is now a series of corporate sponsored intranets connecting to one another. As such, the internet is no longer a free repository of unbiased information, and is now closer to a company's personal website. It can still be used for communication and fact finding, but it is highly censored. Additionally, a connection between different planets is difficult, especially for general civilians. Each planet is treated as having its own personal internet that simply does not connect to the others. Often times groups will set the same website up on both internets manually. Planets/moons/space stations/large asteroids/ any space settlement that is not physically connected to another all are separate.

Wet Suits- Allow air breathing races to live and function normally underwater. These are typically a skintight suit worn over the body, with an attached breathing device worn over the head.

Dry Suits- Allow Octos to live and function normally out of water. These usually cover the entire body and are literally filled with a thin layer of water. A small pack, the size of a pack of cigarettes, oxygenates the water. This is typically attached to the suit's fabric itself, due to its light weight, it generally isn't noticeable.

Com-Link- A com-link can allow communication between most places on a planet. They can usually allow communication between a planet and an orbiting ship.

Translator Box- This small box is worn, and used to translate what a Cephaloid is saying into a vocal language.

Octo style weapons- Weaponry is pole shaped and fires from one end. It uses the same stats and regulations as the traditional human weapons, but can be used for melee and ranged attacks. For ranged damage use any civilian gun. For melee damage, pick a melee weapon to emulate. They require the same amount of hands to wield as an equivalent human weapon. A more damaging weapon tends to be longer, and they vary in length from 3-8 ft. Any race can use an Octo style weapon with minimal extra effort.

Xict'ix style weapons- Weaponry is strictly melee, laser swords and the like. Use melee weapons for their stats.

Laser Torch- A high heat flame used to torch through metals and most objects.

Explosives- Set in place and detonated. This comes with a remote detonator. Anything adjacent makes a Fortitude check vs TN 5. (Higher caliber can be found, but shouldn't be assumed to exist)

Body Temperature Regulator- The Xict'ix have developed a device for regulating their body temperatures while on Earth, and Europa.

Other Major Objects- Other stuff that you think should exist and plan to use often.

Body Armor- Body Armor is fairly conspicuous, but often times that is OK. Typically armor increases your Fortitude die for the purposes of damage checks. The more subdued the armor, the less effective. Armors give a score ranging from a single increase to three increases. For every increase your armor gives, you take a similar decrease to skills in a social situation. (Armor that provides a single increase would look like your typical bullet proof vest, two would look like a full body suit, and three would almost appear robotic)

Damaged Items

To damage an item, an attack roll is made just like against another player. Items do not heal damage naturally. Items are repaired in the same manner as a ship, but using the fix skill. Make a fix check with a TN to fix the item set as the total number of -1 penalties the item has taken. A success reduces this number by 1. Thus a more damaged item takes longer to repair, and is harder to repair. Each check takes roughly one hour. In this instance, helping someone with the check can grant a single die increase, but do not add the results together as normal. Most items have a default fortitude score of d4, and stop functioning when they fail. The GM should increase this die size for particularly durable items.

Factions

Factions represent your affiliation with various groups. Your default rating with any faction that has never heard of you is d4. If you do something they like, your faction score will increase. This can include performing jobs for them, selling them goods, or generally being nice to them. If you do something to anger a faction, you can expect to see your faction rating decrease. This can happen because you did a job for a rival, stole goods, or were generally mean.

Using a Faction Score to Purchase Things

This represents your credit and investments with a faction. Europa uses an abstract wealth system, where specific cash on hand is not tracked. If a faction has something, and you want it, you make a faction roll to determine how willing they are to give it at a price you can afford. A very successful roll might mean you get the item right away. A lower roll might come with stipulations, and a very low roll might mean you don't get it at all. Particularly expensive items might decrease your faction rating. A good rule of thumb for GMs: if the PCs fail the TN by 1, allow it with stipulations or a trade.

Result

- 1- Dinner
- 2- Hand Blaster
- 3- Nice Computer
- 4- Combat Armor
- 5- Car/Ground Transportation
- 6- Small 2 Man Space Ship
- 7- Cargo Ship
- 8- Fighter Jet
- 9- Battle Cruiser
- 10- Space Station

Using a Faction Score to Ask a Favor

If you want to get a faction to do something for you, you also make a faction roll. The more successful you are the more willing they are to do it. Lower rolls means they are reluctant or refuse.

Results

- 1- Nothing
- 2- Public Information
- 3- Turn a blind eye to petty crime
- 4- Turn a blind eye to serious crime
- 5- Put a hit on someone unknown
- 6- Hire bodyguards for you.
- 7- Place a hit on someone moderately famous
- 8- Hire escort / protection ships for you
- 9- Hide you from authorities for serious crime.
- 10- Hit on High profile beloved figure

Locations:

Asteroid Belt – Past the Orbit of Mars. Home to heavy duty mining operations and colonies.

Asteroid Mining Colony- Within the Asteroid Belt, these mining colonies are self sufficient cities that serve one function. Strip mining asteroids for their raw materials.

Undersea Cities on Earth- Cities of humans devoted to living under the sea in a manner much the same as the Octos. The cities do contain air, but often have underwater gardens, and chambers. Many Octos make their homes here alongside the humans.

Europa- Jupiter's Moon. Ice covered, this moon's citizens live below the surface layer, and on the floor of a vast ocean.

International Space Station- Earth's first attempt at living in the stars. This has become the equivalent to a port town. Most ships going to and from Earth don't bother entering the atmosphere and simply unload goods here. The ISS has a fleet of space elevators that ferry goods to and from Earth. Unfortunately, due to its age and general state of repair, it is quite cheap to live here, and many of the residents are engaged in a variety of illicit activities.

Earth- Earth

Earth Mars Colony- Earth has a colony on Mars, and it was originally planned as a staging ground for terra-forming the planet into something habitable for humans. Joint funding from Octos increased the demand for this task. Since the landing of the Xict'ix, however, terra-forming was put on hold and now the status of the colony is in debate.

Earth's Moon Colony- This colony was established before the means to terra-form a planet were reliable, and so no plans were made to do so. The Moon is instead the home of the ultra-rich and famous.

Europa Mars Colony- The Octos originally planned to aide in the terra-forming of Mars provided environmental regulations were in place and a large percentage of the planet was underwater. Now with the landing of the Xict'ix, this seems all but impossible and the colony is in a state of limbo. Physically the colony is simply a capped off crater, filled with water.

Xict'ix Mars Settlement- As they can and prefer to live in a vacuum, it is obvious that they oppose the terra-forming of Mars. They use the old spaceship as the base for their city, and tunnel into the surrounding land for extra space.

Space Travel:

Ships generally travel at a speed of .5 AU/day (some .1 more some .1 less depending on quality). This is an arbitrary number that will hopefully let it take "A week or so" to get from one location to another. Enough time for an adventure to happen. The Xict'ix had a faster ship, but it broke and no one knows how to fix it.

Distances are shortened to 1 decimal place. Distances are also from the "Perihelion" which is the closest the planet ever comes to the sun. Give or take +.5 for the different rotations. GMs should give rough timelines to accommodate this combined with engines not functioning at optimum efficiency (aka low gas mileage) and asteroid fields.

Distances to and from a moon are essentially non-existent. Simply use the moon's planet as the starting and ending point. If already on that moon's planet, call it a half hour because you can't use your big engine without overshooting.

For the purpose of this setting assume planets are in a line so we don't have to keep track of rotations and where they are on a given day. It just makes things easier. If you would like to do so feel free.

Here are some common measurements that will come up.

- 1 AU= 149597870.700 KM (92955807 miles)
- Distance from Earth to the Sun= 1.0 AU
- Distance from Jupiter to the Sun = 5.2 AU
- Distance from Sun to Mars= 1.5 AU

- Distance from Earth to Jupiter= 4.2 AU
- Distance from Earth to Mars= .5 AU
- Distance from Mars to Jupiter= 3.7 AU

Some less common measurements for the other planets, for when the plot dictates you go there, for space mining and the like.

- From Mercury to the Sun = .4 AU.
- Venus to the Sun = .7 AU.
- Asteroid Belt to Sun = Between 2.3 and 3.3 AU.
- Ceres to the Sun= 2.7 AU
- Saturn to the Sun = 9.5 AU
- Uranus to the Sun = 19.6 AU
- Neptune to the Sun = 30.0 AU
- Pluto/Charon Binary System to the Sun = 27.9 AU to 45.0 AU varies more than normal
- Haumea to the Sun = 43.3 AU
- Makemake to the Sun = 45.8 AU
- Kuiper Belt to the Sun = 30.0 AU - 50.0 AU
- Scattered Disk to the Sun = 50.0 AU to 150.0AU.
- Eris to the Sun = 38.2 AU – 97.6 AU.
- Sedna to the Sun = 525.7 AU.
- Alpha Centauri to our Sun= 276394.8 AU (The closest other Solar System)
- Past this point, you probably ought to look it up on your own.

Spaceships

Ship Repair- Spaceships are fixed with a spaceship repair check. These usually take multiple days. The TN to fix a ship is the total number of -1 penalties the ship has to its Fortitude rolls. Success reduces this number by 1. Thus, the more damaged a ship, the longer to repair. As you are making repairs, they get easier. A single space ship repair check can be made per ship per day, and the entire day must usually be spent working on repairs. In this instance helping someone out with the check can grant a single die increase. With this in mind, do not add results together when multiple people attempt the repair.

Ship Combat- Ships have ranges that are so far, ship to ship dogfights are relatively unheard of. Typically ships are far outside visual range. Combat is as simple as “I shoot here because my sensors say a ship is there” and “I try to dodge the incoming fire my ships sensors are alerting me to”. Dogfights are made even rarer thanks to

the speed of ships. In a few seconds a ship can be outside visual range and relatively anywhere on a map of any reasonable scale.

A ship has a given number of gun emplacements which can each be used. To fire the gun, a crew member must be stationed there and make attack rolls using the Ship Gunner skill. All ships have a pilot who can dodge opposing attacks using the Ship Pilot skill. The Crew score of a ship represents the minimum number of people required to fly this ship. The Passengers score lists the total number of people who can fit in the ship, including crew.

Detecting Ships: This is done by the onboard computers. They will alert the pilot that there is a ship within range. This is usually done by onboard detection software, and gives a visual readout. This software also detects foreign objects such as asteroids.

Example Ships

Example Xict'ix Ship

Speed: 10 Squares (.7AU/Day)
Fortitude: 2d10
Cargo Space: 5 Tons
Gun Emplacements: 1
Gun Damage: TN 12
Crew: 2
Passengers: 2

Example Octo Ship

Speed: 6 Squares (.4AU/Day)
Fortitude: 3d10
Cargo Space: 20 Tons
Gun Emplacements: 2
Gun Damage: TN 10
Crew: 3
Passengers: 6

Example Fast Freighter

Speed: 8 squares (.5 AU/Day)
Fortitude: 3d6
Cargo Space: 10 Tons
Gun Emplacements: 2
Gun Damage: TN 10
Crew: 3
Passengers: 5

Example Cargo Freighter

Speed: 6 Squares (.4 AU/Day)
Fortitude: 3d8
Cargo Space: 20 Tons
Gun Emplacements: 2
Gun Damage: TN 10
Crew: 3
Passengers: 8

Example Armed Freighter

Speed: 6 Squares (.4 AU/Day)
Fortitude: 3d8
Cargo Space: 10 Tons
Gun Emplacements: 4
Gun Damage: TN 12.
Crew: 5
Passengers: 8

Example Cruise Ship

Speed: 5 squares (.3 AU/Day)

Fortitude: 3d10

Cargo Space: 100 Tons

Gun Emplacements: 5

Gun Damage: TN 8

Crew: 6

Passengers: 1000

Example "Bus" (Typically used to ferry people to and from Earth, Mars, Europa and anywhere in between)

Speed: 5 Squares

Fortitude: 2d10

Cargo Space: 10 Tons

Gun Emplacements: 1

Gun Damage: TN 10

Crew: 2

Passengers: 100