Core Concepts: Chapter One

Sample Complexity Ratings

See sections 1.2.2 and 2.2.2

Athletics	
Rating	Example
1	Basic movements (running, throwing, climbing, etc.)
2	Advanced movements (gymnastic, etc.)
3	Complex movements (mid-air rotations, etc.)
4	Very complex movements (mid-air rotations on two axis, etc.)
5	Linked sequences of complex movements

Languages	
Rating	Example
1	Know one language
2	Know two languages
3	Know up to four languages
4	Know up to eight languages
5	Know up to sixteen languages

Medicine:	
Rating	Example
1	Basic First Aid (splints, bandages, etc.)
2	Advanced First Aid (stabilization, stitches, etc.)
3	Basic surgery (internal repairs)
4	Advanced surgery (organ transplant, etc.)
5	Cutting edge surgery (neural work, etc.)

Tech Sciences	
Rating	Example
1	Design/install/change simple items (screws, bolts, etc.)
2	Design/install/change complex items (carburetors, etc.)
3	Design/install/change basic mechanical systems (two-stroke engines, etc.)
4	Design/install/change complex mechanical systems (turbine engines, etc.)
5	Design/install/change advanced mechanical systems (electromechanical networks, etc.)

Design Notes: Complexity or Threshold?

Complexity measures what expertise you need to do a task effectively. Thresholds measure the difficulty of a task in a given situation. Thus, the Complexity rating of a task normally remains the same in a given setting, regardless of the situation. As an example, applying a splint to a broken arm is Complexity 1. In a textbook situation, this would be a fairly easy task with a low Threshold. Applying a splint in the middle of the wilds without proper equipment during a thunderstorm would not raise the Complexity, but would give you a fairly high Threshold.

Example: Fumbles

See Using the Dice, section 1.2.3

- Our hero, Jason, is trying to sneak past two overarmed thugs sent to kill him. Jason has a skill of 1, and due to unfavorable terrain, he has a total modifier of -2. Jason fumbles his roll, getting a 1. His total is 1 -2 =-1, but since the lowest a roll can go is 0, that's his result. He'd better hope the thugs aren't paying attention.
- Jason, our unlucky hero, is attempting to avoid getting hit by one of the thugs that just noticed him. He has a skill level of 2, and a total modifier of +2, including his attribute modifier. Jason again fumbles his roll, getting two 1's. This means his total is 1 + 2 = 3.

Example: Action Tests

See How to Do Things, section 1.2.4

Jason is now running from the thugs and ran into an alley blocked by a fence. Jason needs to make an action test with his Athletics skill to try and climb the fence. The GM decides that this test would be modified by Jason's Agility and the threshold will be 5 because it is challenging. Jason rolls his 2 dice getting a 3 and a 5. He takes the highest and adds 1 for his Agility, making a 6. Just enough to make it over the fence.

Example: Opposed Action Tests

see How to Do Things, section 1.2.4

Unfortunately for Jason, the thugs cleared the fence much quicker than he was expecting and are chasing him down. The GM calls for Athletics Rolls, modified by Fitness. Jason and the thugs all have the same Athletics skill, but Jason has one point higher in Complexity. The thugs, on the other hand have +1 Fit each, and Jason is only average (Fit of 0). Jason rolls and gets a 3 and a 4, making total of 5 (4 + 1 = 5), not too bad! The GM rolls for both thugs separately and gets a 2 and a 5 for thug one, making a total of 6. Thug two rolled two 6's making a 7. With his Fit of +1, this equals an 8. Jason is easily run down by the two thugs, and is again in trouble.

Example: Unskilled Tests

See How to Do Things, section 1.2.4

Jason is trying to talk the thugs out of taking him back to their boss. The GM calls for an opposed interrogations test, modified by Influence. While the thugs aren't all that good at avoiding fast talk, Jason hasn't ever done it before, and has no skill. He rolls 2 dice, getting a 5 and a 1. He must pick the lowest, meaning he has once again botched. Jason inadvertently lets slip that he is indeed, the man the thugs are looking for.

Example: Attribute Tests

See How to Do Things, section 1.2.4

Now that the thugs know who he is, they are trying to knock Jason out with some chloroform. The GM rules that Jason must make a Health test versus a threshold of 7, or fall unconscious. Jason rolls 2 dice, picking the highest and adding his Hea. He gets a 3 and a 5, plus his Hea of +1, making his result a 6. Jason slowly falls unconscious and is carried away by the thugs.

Example: Chance Tests

See How to Do Things, section 1.2.4

The thugs have taken Jason back to their boss, and deposited him in one of the various rooms. The GM gets Jason to make a Chance test to determine whether or not there's any air ducts or other such means of escape. Jason rolls one die and gets a 6, modified by his Psyche of -1 to a 5. The GM rules that Jason has lucked out and that there is an air duct large enough for him to crawl through in the room.

Example: Accumulated Successes

See How to Do Things, section 1.2.4

Jason, still groggy from the chloroform, is trying to break open the grate into the air duct before the thugs come back and take him to their boss. The grate is fairly sturdy, so the GM rules that Jason needs to make a Strength test at a Threshold 4, and needs 10 points of accumulated MoS before it will become loose enough to move. The GM also rules that due to the way the grate is situated, it will take 30 seconds per attempt. Jason has a Str of 0, so he simply rolls 2 dice, taking the highest. It takes Jason 10 tries to accumulate the necessary loosen the gate up. Five minutes (30 x 10 / 60 = 5) after he starts, Jason finally loosens the grate. He slips away just minutes before the thugs return.

Core Concepts: Chapter 2 (Character Creation)

Step 1: Concept

Lisa is taking part in a fantasy game. This game will be run using the Adventurous Reality Distortion Level. Each character is to be part of a fairly clearly defined archetype like Bruiser, Mage, Thief or Woodsman.

Lisa decides she will be playing the "Woodsman" character and comes up with a few basic key character points. The character was a hunter who grew up in the country. (Lisa thinks it will be fun to play a bit of a "country bumpkin.") He's fairly fit and is exceptionally perceptive, with "eagle eyes." He's got a strong will, and is fairly quick to pick up new things. The character is good with a bow, good at hiding and sneaking and has a variety of skills that would prove useful in the woods. Lisa also thinks that the character should have a code of honor or be unlucky in love, but she's not sure which would be more fun to play.

It takes Lisa a bit to decide on Taran for her character's name. Since the group wants to get playing right away, Lisa wants to start on the character's attributes and skills. She'll fill out the personal history and description a bit later.

Step 2: Attributes

See Attributes, section 2.1

Lisa isn't very fond of buy attributes and would really like to get on to picking her skills, so she's chosen to use the 'Quick Start' Generation option (page XX). <<2.1.2, the second major header>> This means she gets one attribute at +2, four at +1, and the rest at 0.

Based on her description, she assigns the +2 to Perception. She assigns the +1's to Agility, Fitness, Creativity and Willpower. Build, Knowledge, Psyche, Appearance and Influence are assigned 0's.

Taran's Attributes

Agi: +1	App: 0
Bld: 0	Cre: +1
Fit: +1	Inf: 0
Kno: 0	Per: +2
Psy: 0	Wil: +1

Since Lisa has spent all of her Character Points, she doesn't have to worry about whether she'll use any extra CPs for Emergency Dice or for Skill Points. She writes Taran's attributes down on the character sheet.

Step 3: Skills

See Skills, section 2.2

Lisa already has a few ideas about which skills Taran should have. She picks Notice right away, due his noted perception. He's good with a bow, and is a hunter, so he should have Archery and Traps. He's also a woodsman and she wants him to be good at sneaking and hiding, so she thinks that Athletics, Craft (Woodcraft), Stealth, Survival and Navigation would be good. He should be able to defend himself, so basic levels in Hand-to-Hand and Melee would be good. Both Defense and Combat Sense would be useful in situations outside of combat. She also thinks that Taran should know the basics of tending wounds and such, so she gives him Medicine.

Lisa writes down Taran's skills on a spare sheet of paper, along with the costs:

Taran's Skills

Skill	Lvl/Cpx	Cost	Total Cost
Archery	2/2	4/4	8
Combat Sense	2/1	4/0	4
Craft (Woodcraft)	2/1	4/0	4
Defense	2/1	4/0	4
Athletics	2/1	4/0	4
Hand-to-Hand	1/1	1/0	1
Navigation (Land)	1/1	1/0	1
Medicine	1/1	1/0	1
Melee	1/1	1/0	1
Notice	2/1	4/0	4
Stealth	2/2	4/4	8
Survival	2/2	4/4	8
Traps	1/1	1/0	1

The total costs of the skills is currently 49. Lisa can still spend one more point, but wants to move on to Perks and Flaws before finalizing anything

Step 4: Perks and Flaws

Optional Step, see Perks and Flaws, section 2.4

Lisa looks first at the Flaws, because they help define the character more, and she thinks they're more fun to play. She looks at both Curse and Code of Honor, and decide that giving Taran a cursed love life would be more fun. She thinks that giving Taran the Quirk "Country Bumpkin" would be good.

After looking at the Perks list, the only one that Lisa thinks would fit with the character concept is Acute Sense: Sight.

Lisa talks to her GM, and he approves of the perks and Flaws. He assigns a value of 4 to Taran's Curse, because while love does play a large role in the game, it won't affect him all of the time.

Lisa totals up the points for Taran's Perks and Flaws and realizes she has 5 extra Skill Points to spend. She thinks that Taran's Notice skill could be bumped up a bit, but doesn't think he is a "Veteran" at noticing things. Instead, she spends 4 points and ups the complexity rating of his Notice skill, because he's really good at noticing details like faint tracks. This brings his Notice skill up to 2/2 from 2/1. Lisa quickly speaks to her GM about the woods near the area the game is supposed to take place, and finds out that the Elves often frequent that area. With her Gamemaster's approval, she spends her final Skill Point on Language (Elven) at level 1/1. Now that she's spent all of her skill points, she writes her skills down on her character sheet.

Step 5: Secondary Attributes

See Secondary Attributes, section 2.3

Now all Lisa has to do is calculate Taran's Secondary Attributes.

Taran's Secondary Attributes work out like so:

- Strength: Taran's Bld is 0, and his Fit is +1. This averages out to +0.5. Since Str is rounded down, Taran's Str is 0.
- Health: Taran has a Fit of +1, a Psy of 0, and a Wil of +1. This averages out to +0.667. Hea is rounded off as normal, so Taran has a Hea of +1.
- Stamina: The total of Taran's Bld and Hea is +1. This gives Taran a Sta of 30 ((5 x 1) + 25 = 30).
- Unarmed Damage: Since Taran's Bld and Str are 0, and his Hand-to-Hand level is only 1, his total UD is 4.
- Armed Damage: AD is calculated the same as UD, but with Melee instead of Hand-to-Hand. This gives Taran an AD of 4.
- Flesh Wound Threshold: This is equal to Sta/2, so Taran has Flesh Wound Threshold of 15 (30 / 2).
- Deep Wound Threshold: Equal to Sta, so it's 30 for Taran.
- Instant Death Threshold: Double Sta, so Taran has 60.
- System Shock: SS is equal to 5+ Hea, so Taran has a SS of 6.

Lisa writes these down and talks to her GM about equipment. She is now ready to play.

Core Concepts: Chapter 3

Example: Initiative

See Initiative, section 3.1.2

Jason and Al challenge Bubba and Steve to a fight. To determine who takes his actions first, the GM calls for initiative to be rolled. Each adversary rolls his Combat Sense.

Since all of the participants are using the same skill, Complexity comes into play. In this case, Al has a Cpx of 3, and Bubba has a Cpx of 2. Jason and Steve only have Cpx of 1, so Bubba will get a +1 modifier to his roll, and Al will get a +2. The results of the rolls are:
Jason gets a 6.
Al gets a 5 +2 for Cpx for a total of 7.
Bubba rolled a botch.
Steve gets a 3.

Al goes first, followed by Jason. Steve will act third. Bubba is taken aback at how fast Jason and Al acted, and so may not act this round, but he may still defend himself.

Example: Free Strikes

See Initiative, section 3.1.2
Bubba just ran out of ammo and is within reach of Jason. Rather than attacking Jason outright, Bubba decides to holster his gun, trying to look intimidating. Since Jason is aware that Bubba must let his guard down in order to holster his gun, Jason may take a free strike at Bubba, even though he's acted already this round. Jason isn't one to let honor get in the way of staying alive, and tries to punch Bubba.

Example: Chases and Pursuits

See Chases and Pursuits, section 3.2.6

Al is now hurriedly running for the door. Bubba and Steve are giving chase. Al currently has a 3-meter lead on Bubba and Steve, and has 5 meters to go before reaching the door. All participants roll Athletics, and have a -3 penalty due to the bar being crowded and furniture being in the way. All participants have the same Complexity rating, so it does not come into play. Al's total roll was 2, and both Bubba and Steve received 0, after modifiers. Steve is now 2 meters close to the door, and neither Bubba nor Steve has moved much.

Example: Climbing

See Climbing, section 3.2.7

Jason is trying to climb the 9 meters down a brick wall to the ground. The threshold for climbing a brick wall is 7, and there are no handholds. Jason makes his Athletics roll, and since this is a Complexity 1 task, adds 1 due to his Athletics Complexity being 2. Jason rolls a 8, and may move up to 1/2 his walking speed because he's spending the whole round climbing. His next roll is a 3. Jason begins to lose his Grip! He tries to regain his footing, and rolls a 2, including the -1 modifier for losing his grip. Jason can no longer beat the threshold for climbing a brick wall, and falls.

Example: Injuries and Armor

See Injuries, section 3.5

Bubba really doesn't like Al, and shoots him with a heavy pistol (Damage Multiplier of x15). Al has a Stamina of 30. His wounding scores are Flesh Wound = 15, Deep Wound = 30, and Instant Death = 60. Bubba gets a Margin of Success of 2 (total damage 30). Since the damage is equal to or higher than Al's Deep Wound score, but lower than his Instant Death, Al takes a Deep Wound. He does not suffer a Flesh Wound as well, only a single Deep Wound.

If Al had been wearing an armored jacket worth 20 points of armor, his wound scores would be Flesh Wound = 35, Deep Wound = 50, and Instant Death = 70. This would mean the gunshot would not cause a Flesh Wound, let alone the Deep Wound he suffered.

Example: Action Penalties

See section 3.5.2, Action Penalties

Al has now suffered two Flesh Wounds, and a Deep Wound from Bubba. This produces a (-1 -1 -2 =) -4 action penalty which is applied to all Action Tests, including Health tests to stay conscious

Example: Knockout

See Action Penalties, section 3.5.2

Al's last wound brought his action penalty to -4. Since he suffered a wound, he must make a Health test with a threshold of 1 to stay conscious. Al rolls a 5, which is modified to a 1. Just enough to produce a draw and stay barely conscious. Had he rolled any lower, he would have fallen unconscious for 2d6 minutes (1d6 minutes per Flesh Wound) and 1d6 hours (1d6 hours per Deep Wound).

Example: Bruise Damage

See Action Penalties, section 3.5.2

Steve had caught up to Jason and hit him hard with his fist for a Deep Wound. Since this is only Bruise Damage, Jason suffers a -1 action penalty, rather than a -2. If Jason had any real wounds, the punch would affect him as a normal wound and he would suffer a -2 action penalty.

Example: Wound Degeneration

See Untreated Injuries, section 3.5.3

Al has 2 Flesh Wounds and a Deep Wound. The Deep Wound must be checked for degeneration every hour. The Flesh wounds must be checked for degeneration every (24 / 2 wounds =) 12 hours. Al must pass a Health Test with a threshold of 1 to prevent degeneration. He rolled a 4, which is modified to 0, and suffers another Flesh wound to represent the degeneration.

Example: Trauma and Resuscitation

See Death, section 3.5.5

Al had a Health of +1. This gives him a System Shock of 6. A new Deep Wound brought his action penalty down to -6. Rex begins to die due to trauma. He can be saved if a medic arrives in (6 x 2 - 6 =) 6 minutes. Fortunately for him Jeff, an experienced medic, arrives one minute later. He has 5 minutes to try and save Al. Jeff has a skill of 3/2 and rolls a 7. Al's injuries reduce this to 1 (still enough to save him). Jeff must now stabilize at least one injury to bring the action penalties above -6. He attempts to stabilize one of Al's Deep wounds and rolls an 8 (reduced to a 2), and succeeds. Jeff has barely saved Al's life.

Example: Recovery from Injury

See Recovery from Injury, section 3.5.6

Al is now resting in a hospital. He spends the first week in intensive care. After that, he begins to heal. His two Flesh Wounds heal at a rate of one every 3 days. Once those have healed, his two Deep Wounds take two weeks each. So after (7 + (2 x 3) + (2 x 14) =) 34 days in the hospital, Al is pronounced healthy and released from the hospital.

Jason took a Deep Wound from his fall, and doesn't want the authorities to find him, so he's trying to heal at home. His Deep Wound takes a full month to heal from his Deep Wound (a broken arm) and he suffers a -1 penalty to all physical activities until he can get into a rehabilitation program.

Core Concepts: Vehicle and System Design

Step 1: Concept

Kurt wants to design a walking mecha for the world of Terra Nova (the primary world in Heavy Gear, see DP9-925, the Heavy Gear Third Edition Players Handbook). He thinks that both infantry and tanks will still be prominent in his world and the mecha should fill a role somewhere between the two. He envisions it as being used as a frontline "soldier. Kurt figures the vehicle should be about 4 meters tall, fairly nimble, and carry a wide variety of weapons, all in handheld or hardpoint mounts to maximize the flexibility of the vehicle. Now that he's got a fairly good idea of what he wants, it's time to start building the vehicle.

Step 2: Basic Stats

Target Size

See Select Target Size, section 4.1.2

Kurt needs to figure out what size he wants the vehicle to be. He thinks that the vehicle should be about 6500 kg, or size 6 ((cube root of 6500) / 3 -0.5 = 5.72)).

Armor Rating

See Select Armor Rating, section 4.1.3

Kurt wants the mecha to be moderately armored, and gives it an armor rating of (2.5 x 6 =) 15.

Crew

See Select Crew, section 4.1.4

Now Kurt has to figure out the crew and passengers. He sees it as a one-person vehicle, and so writes down 1 for crew. There are no passengers of computer crew.

Movement System

See Select Movement Systems, section 4.1.5

Kurt envisions the mecha being able to run fairly fast, probably around 60 km/h at top speed on highway. Keeping in mind that on-road speeds for walkers and ground vehicles are 150% standard off-road speeds (see section 5.6.4, Man Made Structures), he settles on 42 km/h for off road speed, which works out to be a top speed of 7 MPs in walker movement. Even with the bonus movement for highways, that isn't going to let the mecha keep up with a convoy, so Kurt adds a secondary movement system (powered wheels on the feet). He figures that 72 km/h or (72 / 6 =) 12 MPs off-road should be good. This works out to be 108 km/h on road, more than enough to keep up with a convoy.

Maneuver

See Select Maneuver, section 4.1.6

Kurt checks the "Maneuver Values" chart, and sees "nimble mecha" is a rating 0. This sounds about right, so he writes it down.

Deployment Range

See Select Deployment Range, section 4.1.7

Kurt wants the vehicle to be fairly long range, capable of going at least 200 km and returning. He chooses 500 km as the deployment range, to allow for extended patrols and detours.

Perks and Flaws

See Select Perks and Flaws, section 4.1.8

The mecha has two manipulator arms. He wants the mecha to be able to climb, so he sets the rating at 6. They should also be able to be used as weapons, so Kurt makes a note for later. Kurt thinks that the Communications and Sensors should be average, but have decent range. He chooses Comms (0/10km), and Sensors (0/2km). Since Terra Nova is primarily a desert planet, Kurt adds Hostile Environment Protection: Desert. As the design has evolved, Kurt sees it as being the baseline vehicle for the army he's building, and so adds all of the Easy to Modify perks, to represent the familiarity technicians would have with the vehicle.

Systems
See System Design, section 4.2

Kurt has a clear idea of what weapons he wants for his vehicle. All of them Hardpoint or Hand-held to allow field swapping:

- A 20mm Assault rifle-type gun, with about 60 shots, average accuracy.
- A Shoulder-mounted Rocket Pack with a heavy punch. Not very accurate, but with a "multiple launch" option.
- Some "hand grenades." Only good up close, not accurate, but good in urban settings.
- An Anti-personnel grenade launcher with a few shots. Probably with a limited arc of fire.
- A Vibroblade to hand to hand combat or for cutting through obstructions.
- And, of course, the arms can punch.

Figure Threat Value
See Generating the Numbers, section 4.1.10

<<Insert calculations with descriptions>>

Final Size and Cost
See Calculate Default Size and Cost, section 4.1.11

<<insert appropriate text, include lemon rolls and references.>>>

NOTE: actual calculations are forthcoming. The ones in the Hardback contain a few errors. The following Hunter stat block is correct.

Name: Hunter/Jager
Size: 6
*Threat Value (TV): 527
*Defensive Threat Value (DTV): 418
Movement: Walk 4/7
Ground 6/12
Maneuver: 0
Armor: 15/30/45
*Miscellaneous Threat Value (MTV): 469
Crew: Living 1 (2 actions)
Deployment Range: 500 Km
Reaction Mass: n/a
Perks and Flaws: Arms: 2 x Manipulator Arm (6, can punch); Communications (0/10 km); Easy to Modify (ALL); HEP (Desert); Sensors (0/2 km)
*Offensive Threat Value (OTV): 694

Quantity	Name	Type	Arc	ACC	DM	BR	ROF	Perks & Flaws	Ammo
1	LAC	P	F	0	x8	2	2	HH	60
1	LRP/24	M	F	-1	x12	1	3	HP, HEAT, IF	24
1	APGL	M	FF	-1	x3	1	0	AI, AE0, HP, HEAT, IF	6
3	HG	P	F	-1	x15	0	0	AI, HEAT, HH	1
1	VB	P	F	0	x8	M	0	HH, AP	Unlimited

Core Concepts: Chapter Five

Examples: Movement

See Movement, section 5.2

A vehicle with a Combat Speed of 4 receives 4 Movement Points, which may be spent for moving, turning, or any combination thereof. If the pilot choose not to spend any MPs, the vehicle is considered to be stationary. It can still defend against attacks and adjust it's hex facing by one side (see Turning, Section 5.2.1)-- But as long as no MPs are spent, it is stationary for game purposes. If the same vehicle spent 1 or 2 MPs, it would be considered half Combat Speed, and the player may claim the +1 bonus to attack (See Actions, section 5.4)

A vehicle is moving at Combat Speed (6 MPs). It may spend between 0 and 6 MPs. If it spends zero, it is considered to have stopped moving. If it spends the full 6 MPs, it has the option to shift to Top speed. The vehicle's Player opts to do this, and declares the change in speeds immediately. To make record keeping easier, the Player puts a "Top Speed" marker (in this case a penny) down next to the vehicle to indicate it's at Top Speed. On the next turn, the Player has the vehicle's full Top Speed movement points available to him (12 MPs). He must spend at least 7 MPs (one greater than Combat Speed). After a few turns at Top Speed, the Player decides that he should slow the vehicle down so he can shoot more effectively. After moving the vehicle, he declares that it is returning to Combat Speed, and removes the "Top Speed" counter.

The Pilot of a walking vehicle wishes to switch from its ground movement mode to its walker movement mode. The vehicle has 7 (Ground) movement points at Combat Speed. The player spends 4 MPs on Ground movement, and then declares the vehicle is switching to walker mode. 3 MPs remain to be used for walker movement, even though the vehicle only has a walking Combat Speed of 5. Assuming the vehicle switches back to ground movement next turn, it would only have 5 MPs to spend, as it started off in Walker movement. If the vehicle was at Top Speed, it could not switch movement modes at all.

Examples: Concealment and Detection

See Detection, section 5.3

Vehicle A has a Detection Rating of 4 during the day. There are 4 full hexes of woodland terrain between vehicle A and Vehicle B and Vehicle B is inside a woodland hex. Vehicle A is unable to detect Vehicle B without using active sensors, because there would be 4 points of obscurement between them. If Vehicle A moved so there was only 1 hex of woodland terrain between them, plus the hex Vehicle B is in, Vehicle A would suffer a -2 penalty to attack Vehicle B

Vehicle A is on a flat plain with no obscurement and is size 6. Vehicle B between 1 and 6 hexes away can detect the walker passively without penalty. Between 7 and 12 hexes, there would be 1 point of obscurement. Between 13 and 18 hexes, there would be 2 points of obscurement, and so on. Once the obscurement exceeds the Vehicle B's Detection Rating, the vehicle B may no longer passively detect Vehicle A. If Vehicle A was a Walker, each range band would be doubled (1-12, 13-24, 25-36, etc.).

Example: Sensors

See Sensors, section 5.3.2

Vehicle A cannot currently detect Vehicle B due to there being 5 points of obscurement between them. However, Vehicle B is within sensor range, so the pilot of Vehicle A spends an action and attempts to get a lock-on with sensors. Vehicle A's pilot rolls his Electronic Warfare skill, modified by his vehicle's sensor rating (0). Vehicle B is within base sensor range, has not boosted its Sensors or Comms and does not have a large profile, so there are not other modifiers. Vehicle A's roll must beat a threshold equal to the concealment (5) plus modifiers. Vehicle B has moved 3 hexes and fired one weapon, giving a total of -4 to the threshold. The threshold is now 1. Vehicle A easily beats the threshold, and now has Line-of-Sight to Vehicle B.

Examples: Attacking, Defending and Damage

See Actions, section 5.4 and Damage, section 5.5

Vehicle A is attempting to attack Vehicle B. Vehicle A rolls its Gunnery skill (2) and applies modifiers. It's moving at combat speed (no modifier), vehicle B is at medium range (-1). Vehicle B is also behind 2 hexes of woods (-2). This gives a total modifier of (-1 - 2 =) -3. At the same time, vehicle B rolls it's Piloting Skill (2) with modifiers to defend. Vehicle B has moved 2 hexes (-2) and the attack is coming from the front so the total modifier is -2. Vehicle A rolls a 4, modified to a 1, and Vehicle B rolls a 3, also modified by a 1. Vehicle A has just barely missed Vehicle B. Vehicle A decides to take its second action to fire a second time and misses again.

Vehicle B decides to slow to a stop moving and fire on Vehicle A. Vehicle A is at medium range (-1), and behind 2 hexes of woodland terrain (-2). Since Vehicle B has stopped, it gains the stationary bonus to firing (+2). It also is firing a weapon with an accuracy of +1, for a total modifier of (-1 - 2 + 2 +1=) 0. Vehicle A has moved 3 hexes, and the attack is coming from the front arc, so its total modifier is also -1. Both sides roll, and Vehicle B beats Vehicle A by 2. The Damage Multiplier is x10 so Vehicle b inflicts 20 points of damage to Vehicle A. Vehicle A's Armor Rating is 15. Since this is equal to or greater than 15, but less than 30, Vehicle A takes a Light Damage, and loses 1 point of armor. Vehicle B's player rolls on the Systems Damage chart and gets a Crew Stunned result. Vehicle A loses 1 action next round. Vehicle B fires again, beating Vehicle A by 5 (Vehicle A Botched). Vehicle A takes 50 damage, enough for an Overkill result. Vehicle A is destroyed.

Example: Repairing a Vehicle

See Repairs, section 5.5.4

Jackie has Tech Sciences (Mechanical) of 2 with a Complexity of 2. Assuming she has all of the required equipment, she has ((2+2) x 5 =) 20 Labor Points to repair vehicles with today. She is attempting to repair a beat-up Hunter Heavy Gear with 5 points of Armor loss (5 Labor Points), 4 Movement Points lost (4 Labor Points), 2 points of Maneuver Loss (4 Labor Points), and a Power Transfer Failure (5 Labor Points). This adds up to a total of (5 + 4 + 4 + 5 =) 18 Labor Points. She can repair this in one (long) day.

The Armor Loss has a Threshold 5 to repair, as are the Movement Point Loss and the Power Transfer Failure. The Maneuver Loss has a threshold of 6. Jackie rolls to repair the Armor Loss, and gets a 3. This is not enough to repair the Armor, so she notes down the result, and rolls again. This time she gets a 4, which added to the 3 that she got previously, beats the Threshold of 5. The Armor has been repaired. The Movement Point Loss and the Maneuver loss are repaired without problems, but Jackie botches her roll when trying to repair the Power Transfer Failure. She doesn't get any work done, and notices that the drive train is cracked and must be repaired (Light Damage, roll of 4). She has to repair the equivalent of 1 MP Loss, and 1 Armor Loss on top of having to repair the Power Transfer Failure. This means she not only has to pay the Labor Points to try and repair the Power Transfer Failure again, she also must pay Labor Points for the other damage. This pushes Jackie over the 20 Labor Points she has today, so she has to come back tomorrow to fix the remaining problems.

Core Concepts: Chapter 6

Example: Swarm Attack

See Animals and Creatures, section 6.1

Al and Jason are being attacked by a swarm of angry wasps (Aggressiveness: 3, Damage/Turn: x3). The GM rolls 3 dice for the swarm's attack, and gets a 7. This is multiplied by the Damage/Turn of x3 for a total damage of 21. The damage is then split evenly between Al and Jason (rounding down), for a total of 10 each.

Example: Creating a Race

See Aliens and Modified Humans, section 6.2

Beth wants to create a racial template for the Elves in his game. She envisions them as being tall, inhumanly attractive, fairly agile, but somewhat short tempered and emotional. Beth also thinks that most Elves should have fairly keen eyes.

Based on her ideas for the Elves, Beth starts building the template by choosing the Attribute Range shifts the race should get. Since they are exceedingly attractive, she decides that she should give them two positive shifts in Appearance (10 CPs). To represent their above average agility, she gives them a single positive shift in that attribute (5 CPs). The short temper and emotional nature are a bit hard to pin down, but Beth finally decides on giving the Elves a single negative shift in both Psyche and Willpower (-5 CPs each, -10 total).

The keen sight is an attribute that most Elves have, but Beth doesn't quite feel comfortable making all Elves have a perk, so she notes that most Elves should take the Perk: Acute Senses (Sight).

Elven Racial Template:
Elves are built using 5 extra Character points and 5 less skill points than is normal for the Reality Distortion Level of the game. Elves' Attribute ranges are -3 to +3 in all Attributes except the following: Appearance (-1 to +5), Agility (-2 to +4), Psyche (-4 to +2), and Willpower (-4 to +2). Most Elves have the Acute Sense (Vision) Perk, with few exceptions

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Example: Drugs and Toxins

See Drugs and Toxins, section 6.2.2

Wanting to appear tough, Al knocks back a triple shot of Scotch (three doses of alcohol) making the potency (6 + 10% + 10% =) 8 and the onset time (15 / 3 =) 5 minutes. Al makes a Health test, and gets a 4. For a minute, nothing seems to happen, then Al gets a goofy look on his face (analgesic and euphoric effects) and is having trouble sitting up or talking straight (sedative effect). He currently has a -4 action modifier from the sedative effect

Example: Electrical Wounds

See Electricity, section 6.2.5

Jim touches a highly electrified fence (intensity 15). He rolls 1 die to see how much damage he takes and rolls a 3. Joel suffers (15 x 3 =) 45 points of damage. This is enough for a Deep Wound. Joel suffers neuromuscular paralysis and is not able to remove his hand from the fence. In addition, he now has to make a Health test to avoid falling unconscious or comatose.

Examples: Fire Damage

See Fires, section 6.2.6

Bubba just fell into a raging bonfire. The bonfire has an Intensity of 7. Two dice are rolled to find out how much damage Bubba takes. The highest die is a 6. Bubba takes (6 x7 =) 42 points of damage this round, enough for a Deep Wound. Bubba is incapacitated for a number of rounds equal to the roll of one die (3). Bubba is almost certainly doomed to a very horrible death. Steve just pulled Bubba out of the fire. Since he wasn't expose to the fire for a full combat round, the Intensity is halved to (7 / 2 = 3.5, rounded up to) 4. He takes damage based on the roll of 2 dice multiplied by this Intensity, rather than 7. The highest die is a 5, causing (5 x 4 =) 20 points of damage to Steve, thankfully just a flesh wound.

Examples: Igniting Fires

See Fires, section 6.2.6

Jason is trying to light a campfire. The wood is flammability 6, and he's trying to light them with a match (Intensity 1). He rolls two dice (a result of 4) and adds the match's Intensity, yielding a total of 5. Not enough to start the wood on fire. After trying a few more times, Jason realizes he should probably start with some tinder.

Jason has accidentally set his jacket on fire. He tries to put out the fire and rolls a 3 on one die. It will take him 3 rounds to put the fire out. Odds are the rest of his clothing (Flammability 5) will catch on fire shortly.

Core Concepts, Chapter Seven

Note: Advice from Page 7 of the JC "GMing made easy" is here in the hardback. I will endeavor to getit transcribed ASAP

Character-scale Vehicles
Occasionally, you may find that you need to use vehicles in a meaningful way during an RPG session, but you don't want to break out the hex maps or deal with conversions mid-game. Here's a "quick and dirty" conversion guide that will let you run vehicles in RPG combats. Remember to precalculate any changes to ensure things run smoothly.

- Rounds are 6 seconds as per standard Character action
- Vehicle armor and damage are multiplied by 10.
- Vehicle weapon range is multiplied by 50.
- Vehicles follow the action rundown in the character action section. If you want a grittier feel, halve the actions available to vehicles.
- Damage against vehicles is dealt with as normal, use the crew injury rules if needed. If an exposed crewman is hit, use the character damage rules.
- Called shots on vehicles work as per vehicle rules, although you could use the character rules if attempting to hit an exposed crewman. (Drop 2 dice.)
- Vehicle speed in meters is 10 times the MP spent (x50 for flying vehicle). (MP x Hex Size is meters/30sec. Divide by 5 to get meters/6sec.)
- Rather than obscurement, apply cover modifiers for vehicles, using your common sense as to what counts as cover for a vehicle. (A shrub that would cover a child will not normally count for a tank.) Otherwise, defensive modifiers work the same for both characters and vehicles (Remember to use MP for determining vehicle defense, not actual speed in meters.)
- Vehicles get a -2 to hit characters, unless the weapon has the Anti-Infantry Perk. Otherwise attack modifiers remain the same. Remember that Top Speed and Combat Speed are based on MP, not actual speed in meters.
- Point Blank range is determined as per Character action rules.
- Characters count as size 1 for throwing, ramming, etc.

Monsters as Vehicles
For really huge creatures like Dragons, it's sometime better to design them as vehicles. This allows you to emulate extra attacks and special abilities with relative ease. Skill levels should be determined based on party capabilities and Reality Distortion Levels. Remember that without the AI perk, "weapons" will have a -2 to hit the characters

Name: The Dragon
Size: 9 (~25,000 kg)
*Defensive Threat Value (DTV)
Movement: Flight 3/5 (119 kph), Stall Speed 1 [250m/turn]
Walker 1/2 (13 kph) [20m/turn]
Maneuver: -2 (-3 Ground)
Armor: 6/12/18 [60/120/180]
*Miscellaneous Threat Value (MTV)
Crew: 2 (Effectively)
Deployment Range: 14 Hours (needs 10 hours of sleep per night)
Reaction Mass: n/a
Perks and Flaws: 2 x Manipulator Arms (3), 2 x Manipulator Legs (6), Sensors (0/2km)
*Offensive Threat Value (OTV)

Quantity	Name	Arc	ACC	DM	BR	ROF	Perks & Flaws	Ammo
2	Front Claw	F	0	3 [25]	M	0	Armor Crushing, Linked	Unlimited
2	Back Claw Grab	FF	-1	4 [35]	M	0	Entangle, Armor Crushing, Linked,Flying Only	Unlimited
1	Tail Swipe	R	0	4 [40]	M	0	Knockback	Unlimited
1	Bite	F	0	0	5 [45]	0		Unlimited
2	Wing buffet	L/R	-1	2 [18]	M	0		Unlimited
1	Fire Breath	F	0	5 [48]	0 [25m]	-2	Attenuating Damage (1), Incendiary, Smoke, Wide Angle (60)	Unlimited
NOTE: All personal scale ratings listed in braces []								