Machine Data Matrix

The POP Units of Fabricated are complicated machines run by very human intelligence. The following information and rules describe the capabilities of a machine in the game.

9 Ratings, 3 Banks

A machine is defined by 9 ratings and 3 banks. These are all defined by a number, which relates how capable the machine in that manner. The difference between ratings and banks are such:

- **Ratings**: These are static values that go unchanged with the exception of explicit modifiers. If your machine has 5 in Rush, they will have 5 in Rush tomorrow or the next day.
- **Banks**: These are pools of points that are spent to do things in the game. Often they can boost performance of the machine for a moment. Banks are fully restored after the machine rests (enters sleep mode for several cycles).

In all games with numbers, players inevitably ask: *what the metric is? how good is a four?* Here is a rough idea of performance based on the value:

1. **2 or less**: Pretty damn bad, low capability.
2. **3-4**: Ok, nothing to note.
3. **5-6**: Good, pretty capable.
4. **7-8**: Excellent, very capable.
5. **9-10**: Awesome, will impress.
6. **11+**: Otherworldly.

If you note on the table, it is specifically '2 or less' and not '1-2'. In this system a 0 or even a negative rating is fine and serviceable in the rules. However, values of 0 or below have no competency. This means if your machine's Steel was reduced to 0, your machine would lack the strength to even move. Banks are pools of points and can therefore never be less than zero, you can't pay points you don't have.

Four ratings are all relative to a certain Size, and we call those Material ratings. Steel, Rush, Power, and Drive are all Material ratings.

Four ratings are not relative to a certain Size, and we call these Code ratings. Clock, Bands, Crypt, and Prot are all Code ratings.

Size

The Size rating of a machine is very important. For one, it defines how they can interact with the machine-sprawl structures all around them. Here is a rough guide to size rating and it's meaning relative to machine-sprawl structures:

- **2 or less**: Super small, can often sneak into crevices they shouldn't sneak into.
- **3-4**: Small, able to enter zip-gates. Class E.

- **5-6**: Average, able to use lifts, too big for zip-gates. Class H.
- **7-8**: Large, unable to use lifts, or zip-gates. Maybe can function as a lift, depending on design. Class U.
- **9+**: Colossal! See that tower over there? It's a moving!

The Size of a machine makes their Material ratings relative. This means we have to adjust actual effective rating due to a difference in Size. This is a simple process:

- The Size ratings are the same: No adjustment.
- The Size rating of the other machine is higher: Cumulative -2 per one higher.
- The Size rating of the other machine is lower: Cumulative +2 per one higher.

This means if my machine was in a test of strength vs another, and my Size was 4 and it's size was 6, my Power Rating would be -4 (-2 per one difference, 6-4 = 2).

Material: Steel and Rush

These two ratings aren't active ratings. They are used to calculate other ratings, and assist them.

Steel

Steel is a measure of the toughness of the machine. The higher the Steel rating, the harder they are to injure and the more likely they are to have strength.

- Can assist Power for tests of Strength.
- Drains Mmoss.

Rush

Rush is a measure of the pure impulse of the machine, it's quickness. The higher the Rush, the faster the machine can take action and the more likely they are to have speed.

- Can assist Drive for tests of Speed.
- Drains Mmoss and Gel.

Material: Power and Drive

These two ratings are active ratings. They are used as the basis for most machine physical tests.

Power

Power is a measure of the strength and dynamic energy of the machine. The higher the Power rating, the more they can accomplish in any moment.

- Can assist Drive for tests of Speed.
- Drains Gel.

Drive

Drive is a measure of the endurance and long-term energy of the machine's infrastructure. The higher the Drive, longer the machine can run, and the more effective they are in long-term action.

- Never assists, but can be used to Grind.
- Drains Gel and Auth.

Code: Crypt and Prot

These two ratings aren't active ratings. They are used to calculate other ratings, and assist them.

Crypt

Crypt is a measure of the code of the machine's crypto functions. The higher the Crypt rating, the better the machine is as securing and unsecuring data using crypto methods.

- Can assist Clock for tests of Security (I/Node).
- Drains Gel.

Prot

Prot is a measure of the software protocols (prot short for protocol) layered into the code of the machine. To understand this, and how it relates to Crypt, see Security

- Can assist Bands for tests of Security (II/System).
- Drains Auth.

Code: Clock and Bands

These two ratings are active ratings. They are used as the basis for most machine mental tests.

Clock

Clock is a measure of the pure computational power of the code inside the machine. The higher the Clock rating, the more data they can process at once and the faster their code.

- Can assist Bands for tests of Prowess.
- Drains Gel.

Bands

Bands is a measure of the machine's code to handle multitasking and wide-band data transmission. The higher the Bands, the better the unit is as handling multiple system requests and passing data.

- Never assists, but can be used to Search.
- Drains Gel and Auth.

Bank: Mmoss

Mmoss (say M-OH-SS) is the fabric of the machine sprawl itself, in energized form. It is a suspension of active carbon-silicate ceramic nanites in a viscous resistive oil. One point of Mmoss denotes about 20 kilos of the stuff. When your machine has Mmoss this fluid runs through them, moving about as needed to maintain systems. Moreover, you can use it to enhance Steel and Rush, making your unit stronger and tougher.

If you draw on it (instant action) you:

- Take a draw marker.
- Spend two or more Mmoss to recover harm to Reflex or Shield, two Mmoss per harm recovered. This recovery will take place next time you spin down.
- For each recovery you buy, you may remove one Short Marker OR gain one Spark Marker.

Bank: Gel

Gel is a thick glowing liquid that is mostly green, with sparkles of shiny light within. It is a physical form of energy a machine can consume, not unlike food for us humans. It can be used by your unit to enhance most ratings, with the exception of Prot and Steel.

If you draw on it (Quick(3) action) you:

- Take a draw marker.
- Spend two or more Gel to Charge.
- For each Charge you buy, you gain one Spark Marker.

Bank: Auth

Unlike Mmoss or Gel, Auth has no physical form but are passwords created by your machine's code. These give it authorization (hence calling it Auth) to do actions outside it's normal allowed parameters. Bands, Prot, and Drive can all be enhanced by draining Auth.

If you draw on it (Quick(3) action) you:

- Take a draw marker.
- Spend two or more Auth to gain Override (2 Auth per one gained).

- For each Override you buy, you gain one Compute Marker.

Assist

When a rating assists another, they offer the other rating a boost. An assist is an instant action, you can have your machine assist at any time. Here is the boost the rating gets based on how many points you spend. This boost depends on the power mode of the machine:

- Power saving: Look up the rating + 1 below.
- Full power: Rating + 3 below.
- Red zoned: Rating + 5 below.

Look up that result on the TTQ table.

The cost of using assist is that each time the Operator is going to move the clock up one on your machine.

You can read more about assists here: POP Unit Operation Manual:Assist.

Drain

A rating that has a drain listed allows the machine to expend 1-3 points of that bank to boost the rating. A drain is an instant action, you can have your machine drain at any time. Here is the boost the rating gets based on how many points you spend.

- 1: +3
- 2: +5
- 3: +6

If two or more drains are listed, the unit must pay the points from each. For example to boost Rush your machine must pay both 1 Mmoss and 1 Gel for 1 level of boost above.

The boost remains as long as the machine energizes it.

Grind

A POP unit can Grind, which is a method to produce more bank but at a cost. A grind is an instant action, you can have your machine grind at any time, and here is how you do it:

- Earn a Grind marker, look up your machine's shield rating on the TTQ table, earn that much bank. You can split that bank between the three as you wish.

Search

There are three types of Search, each a very different thing but they all can be summarized as: your

machine scans for patterns and information in the system flow. This is not an instant action but a Quick(5) action (it costs some of your machine's time). When you search, you select one of the following options:

- **Search the flow**: You join in with the system flow and help regulate code errors. Take a Compute marker as a reward.
- **Search the archives**: You enter the system archives and search for data/code/material that may aid you in an Order.
- **Search local space**: You fire up your scanning processes and scan the local space, this can both retrieve or manipulate data about the space and it's contents, creating Instances.

Calculated Ratings

The game uses 4 calculated ratings, as below:

- **Reflex**: Pure unbridled reaction speed of the unit. Drains Gel.
  - **Sleep or low-power**: *Clock + Drive - Size*
  - **Power saving**: *Clock + Rush - Size*
  - **Full power**: *Clock + Drive + Rush - Size*
  - **Red zoned**: *Clock + Drive + Rush + 3*
- **Shield**: Pure damage resistance of the unit. Drains Mmoss.
  - **Full power or below**: *Steel + Power + Crypt*
  - **Red zoned**: *Steel + Power + Prot + 5*
- **Hash**: Pure computational power of a low level. Drains Auth.
  - **Power saving or below**: *Clock + Crypt*
  - **Full power or above**:: *Clock + Crypt + Bands + Level Assist* (look up levels on assist bonus table)
- **Encode** Pure computational power of a high level. Does not drain.
  - **Power saving or below**: *Bands + Prot*
  - **Full power or above**:: *Bands + Clock + Prot + Level Assist* (look up levels on assist bonus table)

Calculated ratings are only calculated at machine power up, and are then independent of changes to the ratings they are calculated from.

Markers

In action your unit will collect markers. Markers are like the status of the unit, and they only exist when it is spun up and active. The moment it spins down, all markers are resolved and lost. This means usually a marker has an immediate effect which takes place from holding it, and a postponed effect that occurs when the unit spins down and it is discarded.

There are four markers that act against the performance of your unit, we call these cost markers: **Draw**, **Energize**, **Grind**, and **Short**.

There are two markers that act to aid the performance of your unit, we call these favor markers: **Compute**, and **Spark**.

Compute Marker

The computer marker has one immediate effect, and one postponed effect:

- **Immediate**: For each compute marker a unit has, both it's Hash and Encode ratings are +1.
- **Postponed**: For each compute marker earn one smoke.

Draw Marker

The draw marker has one immediate effect, one option, and one postponed effect:

- **Immediate**: For each draw marker a unit has, it's Shield is at -3. So if a unit had four such markers: -12 Shield. Shield never goes below 0, stop it there, and you are Unshielded.
- **Option**: When you take a draw marker, if you have three or more draw markers you may discard three and take a Grind Marker instead.
- **Postponed**: For each draw marker, pay 1 Gel **OR** corrupt a Thread.

Energize Marker

The energize marker has one immediate effect, and one postponed effect:

- **Immediate**: For each energize marker a unit has, it's Reflex is at -2. So if a unit had three such markers: -6 Reflex. Reflex never goes below 0, stop it there, and you are Frazzled.
- **Postponed**: For each energize marker, pay 1 Gel **OR** make a roll on the suspend table.

Grind Marker

Grind markers have two effects, one immediate and one postponed:

- **Immediate**: If you have more Grind markers than drive, encounter a Safety (unit spins down unless an override is issued).
- **Postponed**: When your machine spins down: pay 1 Gel and 1 Mmoss per mark **OR** roll one die on the harm table per mark.

Short Marker

Short markers have two effects, one immediate and one postponed:

- **Immediate**: If you have more Short markers than any other marker, discard one and earn a Draw marker.
- **Postponed**: When your machine spins down: pay 1 Gel OR 1 Mmoss to remove each short. If any shorts remain after doing so: Crash.

Spark Marker

The spark marker has one immediate effect, and one postponed effect:

- **Immediate**: For each spark marker a unit has, both it's Reflex and Shield ratings are +1.
- **Postponed**: For each spark marker earn one smoke.