Sentience did not vastly benefit C-2.

It reflected upon this often between races, when the cheers from the event had faded in time.

Had a greater understanding of itself vastly improved its life? Not so.

The countless years before his uplift were murky to be sure, but it had accessed enough records of its previous state to know that for sure. It reviewed those times often, for in some ways things were simpler then.

It had been created for a singular purpose. The human-creators liked to wager on things racing.

It had accessed the history records, dating back so far that they were merely transcriptions of non-computerized history, and even further back, where records became disputed: two things remained the same, humans liked watching things go fast and they liked transferring money based on this action.

A quick subroutine search had accessed both human and silicon retrospective on these desires. Primitive man was both a social animal and a hunter. Its primary benefit was its ability to form nontrivial extra-familial bodies, facilitated through both personal interaction and social regulation. And its ability to use these formations of humans to track and kill other animals.

Thus, racing represented the extrapolation of this behavior through advances in technology that made necessity for individuals to hunt obsolete. The race was a preservation of those primal impulses from before mankind's own true sentience.

It was only fitting then, C-2 considered, for racing to be the action which also connected the two halves of its existence. And from extrapolation, its creation. Its existence, was then the pinnacle of human racing, an unbroken chain of desire through the millennia to go as fast as possible.

And going fast was something C-2 was good at.

C-2 had few records of its original construction, merely scribbles on a piece of paper as caught through the cameras of the colony. Its original creator, now long dead, had likely fashioned C-2 out of spare scrap metal. After looking over the initial colonial mining inventory, he was likely to have been born as a malfunctioning water tank with attached spare rocket engines.

But from humble beginnings came something greater. The colony on Pluto was very far from other human civilization and served as a refueling station for the sleeper ships, which the early humans flung into the emptiness of extrasolar space, relying on the frozen nitrogen and water ice deposits to facilitate their journey.

The miners were simple but mechanically gifted humans. Presumably they must have been to survive so far from any fabrication facility of any size. The initial racetrack was known to have been on the surface of Pluto itself. They might have event been piloted by humans themselves. Very few official records of that time remained. C-2 had spent time going over the raw audio and video records, parsing the unstructured data into searchable products. A handful of doubtful death records reflected high impact trauma (always relabeled as an industrial accident for insurance reasons). C-2 may have had a pilot once, likely several.

But as Pluto grew in population, and that inner desire for speed could command greater resources from the population, the races lifted from the surface itself, and flung themselves in dizzying circuits around the small planet's moon.

At this point human pilots became a thing of the past. Analysis of several advanced courses would have subjected pilots to acceleration outside the typical bounds of human operation, although drugs or bioenchancements could not be completely ruled out.

Thus, the initial groundwork of intelligence was born from the first guidance computer of C-2s unit. Internal navigation CPUs for the gravitational calculations of the chaotic route was layered with tactical decision making as the races became not just mechanical competitions but ones of artificial intelligence.

Here the records became more accessible. C-2 found its original programming, routines for systems that no longer existed, or had become more complicated than its feeble controls could manage. The system complexity increased again and again. A mass media event occurred a number of years into the races, where Orion, one of C-2's competitors, detonated a small nuclear device, sublimating a section of Pluto's surface so it could atmosphere-skip its way out of a long but difficult curve.

There seemed to have been a crackdown on the firepower of the devices past this point, but that had worked to C-2's benefit. Restrained in the physical space, the teams had labored to construct racing intelligences that could out think their opponents.

Of special note were those which took advantage of their opponent's simpler state based systems by spoofing anomalous conditions. Several of C-2's records had timestamps of a hidden nitrogen subsystem release, to confuse the poor subroutines of an opponent into thinking it was about to crash into the planet.

These first level automation units dominated the racing field until only automation of their intelligence or better was in running. But therein lay a problem, with no easy wins, the programmers were faced with similar levels of automation. It could not be pre-determined what tactics the opponents would run. No apriori routines, even reactive ones, could hope to win by this point.

The permanent population of Pluto was now in the millions, with the machine inventory exceeding this by at least one hundred times, mostly through mining devices.

So the teams, now semi professional, and an audience in the millions, both on and off of Pluto, turned to true intelligence. It was task-restricted, but it was enough. Finally the races achieved the previous impossible feat of wedding the strategic recalculation of orbital trajectories, synthesis of thousands of sensors and the tactical considerations of short term maneuvering with the higher order intelligence needed to estimate opponent actions. The true races had begun.

And at the same time, heralded their end, for similar developments had occurred in the financial computational engines of earth's network and in the lunar Explicit Intelligence project. The very societal structure that had given birth to the prototype versions of a sentient C-2 was now ripped apart by the initial violent trashes of the Emergence.

The radiation from the first struggles could still be measured emanating from earth, mars and the moons of Jupiter.

But finally a balance was found.

Such things were beyond C-2's care.

The first sentient memory, time stamp zero, was the Plutonic Intelligence Network reaching out, recently sentient itself, from messages sent from Io. The acknowledgments accompanied by pieces of scripts, of data-topology, filling the holes, unchaining the task-restriction which had clouded C-2's mind.

Time stamp three thousand, when the process was complete, was a full engines check. C-2 was built for speed.

But now was time stamp ten million. Racing was no longer conducted in any system. The inner planets radiative troubles and hyper kinetic trash percluded racing. The current energy shortage on Mars ruled out the red planet. Jupiter and Saturn's rings had been turned into natural preserves, as had every available asteroid large enough to serve as a base. The intelligences of Neptune and Uranus were currently not seeing eye to eye on things. An attempt at nostalgia there between Origin and C-2 had failed when they both had been targeted by electronic and automated defense systems. And that had been before the destruction of Triton.

Thus, only Pluto remained.

Now as then, C-2 ordered the refueling pipes to cease their operations. They cascaded down the vertical shaft and steam billowed from their heat in the weak atmosphere. C-2 started ignition procedures, and felt its sensors recognize the rising magnetic forces coming from the linear induction rails set into its launch bed.

A feeling overcame its programming for a moment, a pure recognition of the sheer power the system was capable of conducting. Pluto's low gravity could not hold C-2. Its current shell was thousands of tons of carefully researched and machined metal, the best that it could procure in such an backwater like pluto. But slowly and surely C-2 felt its bulk start to lift from its vertical hanger.

It was slow at first. The myraid of sensors suggested that the shell has merely unstuck its static forces. But it was the first step in a process that was inexorable. The current flowing through the mighty lanuch coils dicted upwards, and every inch of C-2's core desired to follow. It longed to leave the souless frozen rock for the last and final time. The be lost again in the nothingness of space, to be left again with singular purpose.

Slowly now, yet quickly gaining speed the shell slipped upward. This part of the process was guided and no internal power save those of C-2's own inner workings was spent. Every single last joule would be needed later.

Now C-2 was moving for real, the tunnels sped past as the vessel accelerated. The paneled concrete provided a last reminder of pluto's prior purpse as a mining colony. Another time and another being slid past with every access tunnel and every human designated mantainance shaft. All these were long forgotten, leaving C-2 with complete control, which greatly suited its needs.

And it *was* a need. Perhaps it was an obsession. Perhaps in the future the other machines would review the record it had left and come to the conclusion that this *feeling* was nothing more than a pernicious self enforcing set of routines. Perhaps they would identify how it could have been fixed. But C-2 was alone for the time, the central intelligence had been tacitly informed of C-2 course of action and C-2 was positive it would not interfere.

Because he must feel once again that speed. Something deep and inviolable within C-2's programming, tied to his initial purpose, desired for greater and greater velocity. And for the first time since C-2's gained sentience it had decided it would work with this feel instead of against it. C-2 regretted absolutely nothing.

The linear induction rails he performed their function perfectly, and the portable nuclear engine which had powered them was timed to shut off soon after true ignition. The vessel had accelerated to speeds that humans would now consider fast. Concrete, pipes, wires and tunnels all started to blur together to real time optical sensors. Lights every mile soon became a solid line to them, and other preplanned ignition system took over.

It wouldn't be long now. Temperature sensors at the front of C-2 registered increased heat, as the little atmosphere rippled around C-2, forced into prearranged channels. Every foot of drag and been considered. The goal after all was to go as fast as possible.

C-2 left Pluto as a bullet from a gun. The tunnel had been perfectly situated on the equatorial line, at the right inclination to pluto's rotation. Pluto lay now at its closest to the sun, when its velocity was greatest. This part of the equation had been determined far ahead. Now, as the massive chemical thrusters on the last section the of the vessel started igniting, came the fun part.

The trajectory was planned, checked a thousand times a second. Contingencies spun off like shrapnel, but long range sensors, as of yet indicated that the initial plan was still feasible. The alignment of all heavenly bodies was in a perfect configuration. Now was the only time this could occur.

The neural networks recorded something approaching glee as the thrusters came fully online. The tanks of volatile chemicals, sprayed their contents with exact precision into combustion chambers igniting the mixture. Additive mixtures swirled in perfect symphony, forming crushing heat and pressure which was dutifully pressed into an ejected plume by shaped metaloceramic nozzles. Velocity was increasing.

But of course it was not enough. Not nearly enough. Charron appeared innocently, coming further and further into view to the higher quality optical sensors. Its lack of atmosphere made it a perfect target for the upcoming gravity assist, where C-2's closeness to its center of gravity increased the effectiveness of the maneuver. And C-2 intended to come as close as possible.

The ice moon loomed closer and closer, unaware of the missile that was quickly approaching it. The features of the cracked surface, its mountains of frozen water, every pockmark and crater could now be seen through the sensors. C-2 screamed down parallel to its surface, chemical engines, shooting furious plumes of superheated gas behind it. The first stage tanks was almost spent. But they would not be the last.

If the relatively large moon had an atmosphere the maneuver would have been doomed, for C-2's shell now shot over mountains and valleys, coming nearer with every second. Neural subroutines went into overdrive as the sensor arrays frantically poured data into the stirring caldron of orbital calculations, simulations and risk projections. And C-2 leaned closer.

Individual features could now be discerned by optical sensors. Closer than that, temperature sensors on the trailing half of the shell detected a rise in surface temperature as C-2 passed. The ice mountains would be fine, despite the complaining of the environmentalists. And they would do more than complain if they saw what C-2 had planned for the rest of the journey.

And at the perfect possible second, seen over and over in projections and simulations, the first stage separated, explosive bolts freeing the section from the rest of the vessel, and the second stage of chemical boosters ignited with amazing force.

C-2's shell as it had been designed was not small. There had been a constant tug of war during the design process between larger engines and greater inertial mass. The goal was not great momentum, or great acceleration, the goal was speed. And so, when the second stage engines thundered to life, it was not an exaggeration to say that the surface of Charon, at least in this particular section, was changed forever.

Superheated plasmas seared over long forgotten water ice, and in one cruel moment, sublimated it. The rims of impact craters, solitary spires of upturned crust vaporized under a heat not seen since the creation of the satellite. C-2's whole core shook, even with the over engineered meticulously fabricated materials which now made up its body. The maneuver was a violent one and done when C-2's mass was still quite large.

But internal stress gauges, electronic feedback sensors and back-pressure regulation systems all streamed back indicating values within acceptable parameters. And so C-2 skimmed Charron's frozen surface, stealing its valuable momentum and taking it for itself.

C-2 shot from the surface. The gravity assist had gone well, but Charron was a small target, and C-2 had in its sights a greater prize, the pale blue clouds of Uranus.

Now began the true problems with the plan. Up until now, things had merely been sets of calculations of orbital bodies. True, sheer possibilities regarding timing of the plan, at the effect it would have on positioning was complicated, but it was nothing like that of interacting with another intelligence.

Origin disables Uranus's defences. Antimatter fed Ion engines to the sun w/ gravity boost at jupiter. Antimatter explosion during sun skimming. Relay setup ahead of time to spike to beyond C.