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The Past and Future of Unicon

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Summary:

1. As the hardware keeps changing and new problems domains keep emerging, researches have to be done to update the programming language so that it can meet user’s requirements. The general unsolved problems are: How to make programming easier/faster, the portability which platform du jour, and how could make the extensibility easy. The same Unicon have.
2. Unicon is a very high level, goal-directed, object-oriented, general purpose applications language, which is the unified extended dialect of Icon. During the last 12 years, there are many Unicon researches done, including of: some personal motivations on 3D, networking, and virtual environments; NLM motivations on databases, “big text”, speed, tools; AT&T Labs Research motivations on concurrency, C/C++ access.
3. And right now, recent researches done at UI have solved part of the problems. In order to best utilize modern hardware (concurrency), pthreads are in legacy VM implementation; avoid locking, especially the GIL; make the algorithm embarrassingly parallel to speed up.