

Tachyum Prodigy

The World's First Universal Processor

PRODUCT BRIEF

Tachyum Prodigy® Software Emulation Systems

Customers and partners can use Prodigy's software emulation for evaluation, development and debugging, and with it, they can begin to transition existing applications that demand high performance and low power to run optimally on Prodigy processors. Pre-built systems include a Prodigy emulator, toolchains, Linux kernel and user mode applications. Also included transparent binary translation from x86, ARM and RISC-V ISAs to Prodigy (user-mode applications only).

KEY FEATURES

Emulators

- Gdb-sim
- QEMU

x86, ARM, RISC-V to Prodigy translators

Compiler Toolchains

- GNU GCC v14.2 (both native and x86 hosted)

Debugging capabilities

- GDB
- Gdbserver
- QEMU based gdbserver
- Simulation based cross GDB
- KGDB

C standard Libraries

- Glibc v2.41
- Musl
- LibStdC++

OS kernels and distro tools

- Linux kernel 6.12
- Yocto Project (Open Embedded)
- FreeBSD (beta)

Linux system tools

- Top, Htop, Iotop, Sar, Nc
- Tar, Unzip, gzip, Util-linux
- Sed, Gawk, Grep
- Wget, Rsync
- Strace

Linux applications/services

- Web server: Apache
- SQL server: MariaDB, SQLite
- Non-SQL server: MongoDB
- Scripting languages: PHP, Python, Perl, Ruby, Tcl
- JVM (interpreter)
- Git, Subversion

Scientific libraries

- Eigen library
- Vectorized and tensorized BLAS including GEMM
- Vectorized and tensorized LAPACK
- FFT library
- ODE/PDE solvers

AI software

- PyTorch 2.5
- LiteRT



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