A Brief Introduction to Fx/PVM

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3/2/93

Description

- Fx compiler variant and library
- All Fx language extensions except tasking (No source changes)
- Homogeneous sets of Sun or Pmax machines
  - Alpha soon
  - Heterogeneous later
- No deposit model message passing (-dmsg)

Setting Up

- See /afs/cs/project/iwarp/member/... pdinda/fx/release/README

- PVM 3
  - Put PVM 3 binaries on your PATH
  - Make pvm3/bin/ARCH directory in home directory
  - Make link to fxmonitor executable

- Make copy of generic Fx/PVM Makefile

- Modify Makefile to reflect OUTDIR, Fortran 77 compiler

Compiling

- Change Makefile to reflect TARGET, ARCH, NUMPROCS
- Run make
- Link exec into pvm3/bin/ARCH
- Run exec (Next slide)
- What Actually Happens
  - .fx → .f via Fx variant
  - .f → exec via f77
  - Link with Fx/PVM library, PVM group and main libraries, XDR library

Running

- Start PVM daemon (pvmd3 hostfile)
- Start PVM group server (pvmgs)
- Run exec
- What Actually Happens
  - exec launches and verifies fxmonitor
  - exec launches N-1 copies of itself
  - SPMD execution
  - if any exec process exits abnormally, fx-monitor kills every other exec process