

MAKING NOVIX BETA BOARDS INTO DEVELOPMENT WORKSTATIONS

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The potential of the Novix³ Forth engine as a very fast Reduced Instruction Set Computer (RISC) can be realized in real-world applications by placing the Novix cpu chip in an environment that gives the application engineer/programmer convenient access to the chip and to hardware and software interfaces. First-level access to the Novix RISC is provided by the beta board and its lower cost (less complex) cousins, the delta board⁴ and the FORTHkit.⁵

This paper describes our approach to the second-level capability useful for evaluation of hardware/software interfacing such as math co-processors, standard bus interfaces, and memory management hardware. This capability is especially important for proving the viability of Forth RISC concepts and for conducting comparison studies against more conventional microprocessors. We implemented two packaging approaches. The first one resulted in a semi-portable unit that can be carried in a salesman's catalog case. The second approach resulted in a desk-top unit that resembles a commercially available personal computer. Both types are configured with a 20-Mbyte hard disk and two 360-Kbyte floppy disk drives. Packaging and interfacing details are addressed in the paper.

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3. NOVIX is the trademark of, and the NOVIX beta board is available from, The NOVIX Corporation, 10590 N. Tantau Avenue, Cupertino, CA 95014.

4. Available from Software Composers, 210 California St., Suite F, Palo Alto, CA 94306.

5. Available from Computer Cowboys, 410 Star Hill Road, Woodside, CA 94062.