The ADAM Environment and Transputers

B.D.Kelly, J.M.Stewart, B.V.McNally (ROE)

The ADAM environment is both used for data analysis by Starlink and for data acquisition by the UK-involved observatories in Australia, Hawaii and the Canary Islands. ADAM was originally hosted under VAX/VMS but is now at an advanced stage of a Unix port. ADAM comprises a parameter system, hierarchical data system, noticeboard system, error handling system and other components. Originally a multi-task single processor environment, it has been enhanced to a multiprocessor environment using local or wide area networking. The Royal Observatory Edinburgh are producing a Transputer version of the ADAM kernel to allow instruments which make use of Transputers for data acquisition/control to integrate more closely with the ADAM software running at the telescopes. Communication into the Transputer system is based on Ethernet carrying TCP/IP, easing development towards a network of mixed VMS/Unix/Transputer Telescope systems. The Transputer system is being applied to instruments under development for the UKIRT and JCMT telescopes.