

**Building Specifications** The building in the top photo is the new home of the National Permanent Savings Bank in Washington, D.C., designed by Hartman-Cox Architects. Its construction was based on a money-saving method of preparing building specifications which derived from NASA technology developed to obtain quality construction while holding down cost of launch facilities, test centers and other structures.

Written technical specifications spell out materials and components to be used on construction projects and identify the quality tests each item must pass. Specifications can have major impact on construction costs. Poorly formulated specifications can lead to unacceptable construction which must be replaced, unnecessarily high materials costs, safety hazards, disputes and often additional costs due to delays and litigation.

NASA's Langley Research Center developed a novel approach to providing accurate, uniform, cost-effective specifications which can be readily updated to incorporate new building technologies. Called SPECSINTACT, it is a computerized system accessible to all NASA centers involved in construction programs. The system contains a comprehensive catalog of master specifications applicable to many types of construction. It enables designers of any structure to call out relevant sections from computer storage and modify them to fit the needs of the project at hand. Architects and engineers can save time by concentrating their efforts on needed modifications rather than developing all specifications from scratch.

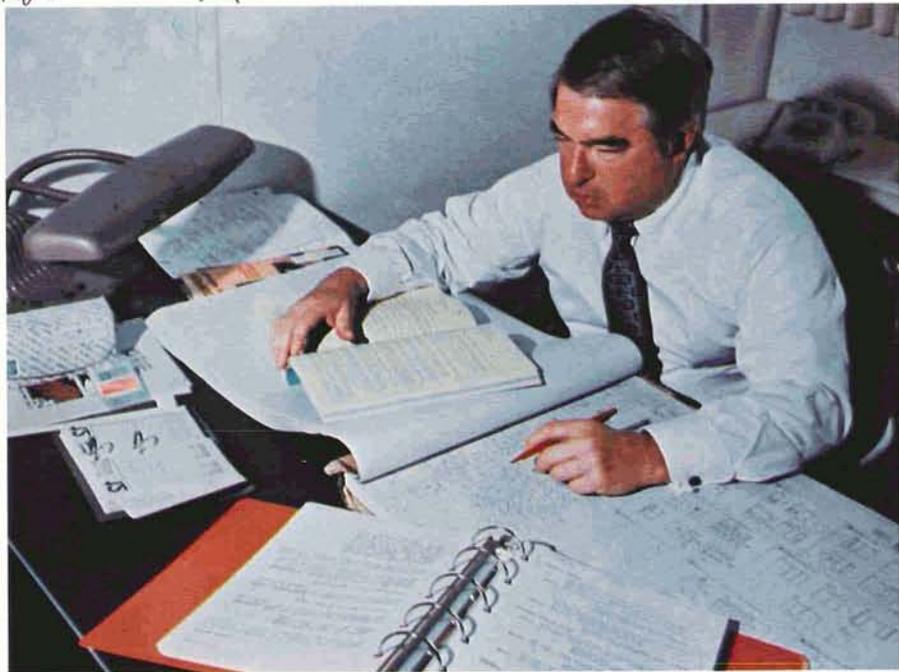
Successful use of SPECSINTACT has led to a number of spinoff systems. One of the first was MASTERSPEC, developed from NASA's experience by Production Systems for Architects and Engineers, Inc., an organization established by the American Institute of Architects. MASTERSPEC (shown at right), used in construction of the bank building pictured, follows the same basic format as SPECSINTACT and can be used in either automated or manual modes. The striking appearance of the bank building shows that, while MASTERSPEC saves time and money, its use involves no sacrifice in architectural design freedom.

The Naval Engineering Facilities Command employs an automated specifications system



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based on SPECSINTACT. The Public Buildings Service of the General Services Administration uses SPECSINTACT as a starting point in a plan to make its guideline specifications available to architects and engineers on a nationwide computer network. Public Technology, Inc., a NASA Technology Application Team, is working with Production Systems for Architects and Engineers, Inc., to promote widespread use of the system by state and local governments for cost benefits to taxpayers.