REAL TIME PRESENTATION OF NUMERICAL SIMULATIONS

VAN NETTEN,A.A., DEWEY,J.M.

When results obtained from the numerical simulation of dynamic processes are shown, they are generally displayed at discrete times. This provides information of the flow fields at these discrete times but does not give much information about the dynamics of the process. Identification of events such as weak compression or expansion waves are much more apparent when the results of the codes are animated. This is accomplished by the display of a rapid succession of images separated by small time intervals. If the time intervals are short enough the flow will appear continuous. The eye can identify very small changes between images when they are rapidly displayed which allows for the identification of subtle dynamic effects. The development of high performance PC Computer has permitted animation of the large outputs from the hydrodynamic codes.

The presentation will show the animated results of a variety of typical hydrodynamic problems solved by an in-house code based on the WAF scheme. The paper will discuss the methods of animation and its advantages.