Development of a Finite Volume

Time Marching Method

by

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ABSTRACT

The objective of the current work is to develop and demonstrate a
Navier-Stokes approach for transonic flow which includes viscous
terms in the finite-volume   method.   The accuracy   of the
computational method will be verified using a transonic diffuser
as a test case. The computational goal is to calculate the flow
in sufficient detail and with sufficient accuracy that the loss
generating mechanisms can be studied to assess the sources of
inefficiency in the transonic diffuser.   The purpose of this
report is to document progress made in the development of the
time-marching finite-volume method from September 1984 to December
1984.