



# VEXTERNALDB

User subroutine [VEXTERNALDB](#):

- is called once at the beginning of the analysis, at the beginning of each step, before each increment, at the start of each increment, at the end of each increment, at the end of each step, and finally at the end of the analysis;
- can be used to communicate data between external programs and user subroutines within Abaqus/Explicit;
- can be used to control the time incrementation of the Abaqus/Explicit analysis;
- can be used to control the output of the restart data for the analysis;
- can be used either to skip the remainder of an Abaqus step or to terminate the analysis;
- can be used to open and close external files as needed for exchange of data with the Abaqus analysis;
- can be used to exchange data with other user subroutines via user-allocated global and thread-local arrays (see [Allocatable Arrays](#));
- can be used to exchange data with other Abaqus processes via an MPI mechanism (see [Obtaining Parallel Processes Information](#)) in domain-parallel analyses; and
- can be used to request additional field output frames during the analysis.

This page discusses:

- [Dynamic Exchange of Data with Other Abaqus User Subroutines and External Programs](#)
- [User Subroutine Interface](#)
- [Variables to Be Defined](#)
- [Variables That Can Be Updated](#)
- [Variables Passed in for Information](#)





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**See Also**  
[About User Subroutines and Utilities](#)