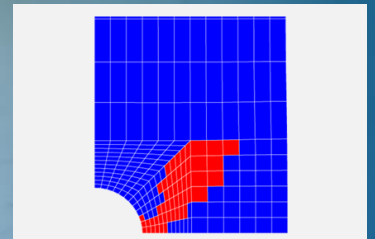


WRITING USER SUBROUTINES WITH ABAQUS

SIMULIA COURSE DESCRIPTION



Level: Advanced
Products: Abaqus
Disciplines: Structures

Audience
 This course is recommended for engineers who need to adapt the capabilities of the Abaqus solvers to their particular needs.

Why take this course?

User subroutines in Abaqus allow the program to be customized for particular applications. This course explains when to consider the use of user subroutines and how to approach their development. Detailed descriptions are given of the data required for selected subroutines, the additional statements to be included and the variables that are available within the routines. Particular attention is paid to highlighting good practice in user subroutine development. Examples of various user subroutines are used to illustrate the points made in the lectures.

What will you learn?

In this course you will learn about:

- When and how to use subroutines
- DLOAD, VDLOAD, and UTRACLOAD for specifying user-defined loading
- FILM for specifying user-defined film conditions
- USDFLD and VUSDFLD for defining field variable dependence
- UVARM and UVAREL for defining user output

variables

- UHYPER, UHYPER_STRETCH and VUHYPER for modeling hyperelastic materials
- UMAT and VUMAT for allowing constitutive models to be added to the program
- UEL and VUEL for allowing the creation of user-defined elements

Explore Your Learning Options

Live Sessions	Engage in Real-Time, interactive group workshops guided by experts. Learn and collaborate live in your preferred language and time zone.	Join a live session
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Gain hands-on experience and master real-world workflows through guided, practical training sessions.

Apply nonlinear analysis techniques to simulate complex structural and multiphysics problems accurately.

– SIMULIA Training Expert Team

What You Need to Know Before Starting

User subroutines are a very advanced feature of Abaqus. Thus extensive experience using Abaqus is strongly recommended. In addition, a strong working knowledge of the finite element method and programming in either FORTRAN or C is desirable.

Want to Learn More?

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