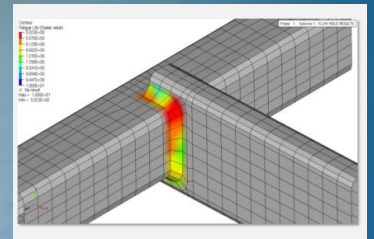


FATIGUE OF WELDS IN FE-SAFE

SIMULIA COURSE DESCRIPTION



Level: Advanced
Products: fe-safe
Disciplines: Structures

Audience
 Simulation Analysts

Why take this course?

This course covers simulating the number of cycles till fatigue failures at welds in welded structures. The methods are based on predicting a crack through a certain thickness, in welded structures at the welds (toe, root, throat, etc.; failure mechanisms in welds can be included). Both classification methods (such as BS5400 and BS7608) and structural stress methods (such as the Verity™ module in fe-safe) are included. Examples are provided using FEA output models run in Abaqus, Ansys or Nastran. Not included is temperature-dependent weld fatigue, or weld processes such as friction stir welding or similar. Non-structural joining such as solder is not covered, nor is nonmetallic joining such as adhesive bonding.

What will you learn?

Upon completion of this course you will be able to:

- Understand modeling requirements for line welds and spot welds
- Set up FEA models for weld fatigue and import results into fe-safe
- Use BS5400 Weld Finite Life algorithm in fe-safe
- Define weld lines for structural stress calculations
- Use the Verity module in fe-safe based on structural stress calculations
- Select a material for fatigue analysis using structural stress methods
- Run weld methods and/or base metal fatigue simultaneously
- Postprocess weld fatigue in fe-safe and using a postprocessor

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
On-Demand Learning	Access expert-designed courses anytime, anywhere. Perfect for independent learners looking to build skills on their schedule.	Start Learning Now
Private Training	Exclusive, tailor-made sessions designed to meet your team's unique goals with expert guidance.	Contact Us for Custom Training



Gain hands-on experience and master real-world workflows through guided, practical training sessions.

Assess fatigue life and durability to enhance product reliability and performance.

– SIMULIA Training Expert Team

What You Need to Know Before Starting

Introduction to fe-safe

Want to Learn More?

Expand your knowledge by exploring our [course Catalog](#) and browsing learning paths on [Eduspace](#), our dedicated e-learning platform.

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