

AFGROW Standard Training Syllabus

Day 1: (optional)

LEFM fundamentals

- Basic Concepts
- Early LEFM Development
- Definition of Stress Intensity
- Crack Closure
- Relationship Between Stress Intensity and Crack Growth

Day 2:

AFGROW Basic Assumptions/Limitations

AFGROW GUI Layout and Flow

Main Modules

- Spectrum
 - Terminology
 - Spectrum Format
 - Spectrum Management Tool
- Stress Intensity/Beta Factors (Geometry)
 - Classic Cases (User Defined, Application Defined, Weight Functions)
 - Beta Correction
 - Beta Modification (K-Solution Filters)
- Crack Growth Rate Models
 - Review of Available Models in AFGROW
 - Example Using Tabular Rate Data (Class Participation)

Day 3:

Main Modules, Continued

- Stress State and Failure Criteria
- Retardation Models
- Residual Stresses
- Preferences
- Units
- I/O Files
- Examples (Class Participation)
- Additional Capabilities
 - Advanced Models
 - Crack Initiation

Day 4:

AFGROW Tips and Tricks

- Using superposition to model complex geometries

- Getting more out of the Advanced Modeling Capability

- Using AFGROW to generate crack growth reports

Continuing Damage Modelling

AFGROW COM Automation

- COM Examples (Class Participation)

- Plug-Ins

- Fracture Mechanics Database

Closing Statements / Q&A Session