

Using the results of finite element analysis (FEA) from Ansys Mechanical and Ansys LS-DYNA, it accumulates damage from repetitive loading to determine a product's predicted life. IntegratedEngines-Additional + Solver Engines-Advanced on all available user Customized nCode DesignLife Describe the end-to-end solution procedure for stress-life analysis with Ansys nCode DesignLife in Ansys Mechanical. nCode DesignLife is a design tool that identifies critical locations and calculates realistic fatigue lives from finite element results for metals and composites, allowing engineers to simulate actual loading conditions to avoid costly design changes. nCode DesignLife is an up-front design tool that identifies critical locations and calculates realistic fatigue lives from leading FE results for both metals and composites. Using this workflow process and performing design exploration through parametric nCode DesignLife is a CAE-based fatigue Apply the strain-life analysis approach to predict the fatigue life of structures that deform in the nonlinear material range. nCode DesignLife is the next generation CAE fatigue and durability analysis tool that works with all leading FE codes and produces realistic predictions of fatigue hotspots This course provides an introduction to the capabilities of Ansys nCode DesignLife that are included with a standard license. "before you even have a prototype. General material data for seam welds for both bending and tension conditions are supplied with the software. Get an introduction to the capabilities of Ansys nCode DesignLife, including the basics of using Ansys Mechanical with Ansys nCode DesignLife to assess structural durability ANSYS nCode DesignLife is fully integrated within the ANSYS Workbench environment, so it delivers a complete fatigue process that, once you define it, you can apply repeatedly. Recognize the importance of several nCode • nCode DesignLife can be used to perform vibration fatigue analysis on results from many FEA tools •The vibration loads can be single or multiple and can be described as: •Random PSDs •Sine on random •Sine sweeps •Sine dwells •Fatigue methodology includes both Stress-Life and Strain-Life Ansys nCode DesignLife works with Ansys Mechanical to reliably evaluate fatigue life. nCode DesignLife features advanced capabilities to rapidly deliver accurate fatigue life predictions Code DesignLifeTM 8Product Overview:nCode DesignLife provides fatigue life prediction from finite element results to answer the question "how long will it last?" or "will it pass the test. You can quickly evaluate the effects of different materials and alternative CAE Solution for Fatigue Life Prediction from Finite Element Models. A click of a mouse delivers complete analysis results for a series of design variations. The approach is appropriate for weld toe, root and throat failures Fatigue Life Prediction and Test-CAE Correlation. Go beyond simplified stress analysis and avoid under or over-designing your products by DesignLife provides methods to intelligently identify weld lines in the FE model, thus simplifying the process of setting up the fatigue job. It covers the basics of using Ansys Mechanical with nCode DesignLife is a CAE-based fatigue analysis system that contains a comprehensive set of solvers and advanced methods for predicting structural durability ANSYS nCode DesignLife software makes it possible to: Perform virtual durability assessment up front to reduce reliance on physical testing and avoid costly design and Fatigue calculations based on various weld standards can be readily made using nCode DesignLife, where a number of features have been introduced to make this possible, nCode DesignLife is a design tool that identifies critical locations and calculates realistic fatigue lives from finite element results for metals and composites, allowing engineers to run the powerful nCode solver engine in the background.