ANALYTICAL FRAMEWORK FOR THE
LIFE2 COMPUTER CODE

by

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ABSTRACT

The LIFE2 computer code is a fatigue/fracture analysis code specifically designed for the analysis of wind turbine components. It is a PC-compatible Fortran code that is written in a top-down modular format. In this numerical formulation, an "S-n" fatigue analysis is used to describe the initiation, growth and coalescence of micro-cracks into macro-cracks. A linear, "da/dn" fracture analysis is used to describe the growth of a macro-crack. This paper presents the numerical formulations used to implement these analyses.