EnginSoft is a premier consulting firm in the field of Simulation Based Engineering Science (SBES) with a global presence. It was founded in 1984, but its founder and initial employees had been working in SBES since the mid '70s. Throughout its long history it has been at the forefront of technological innovation and remains a catalyst for change in the way SBES and CAE technologies in general are applied to solve even the most complex industrial problems with a high degree of reliability.

Today, EnginSoft is comprised of groups of highly qualified engineers, with expertise in a variety of engineering simulation technologies including FEM Analysis and CFD, working in synergic companies across the globe. We are present in Italy, France, Germany, the UK, Turkey and the U.S.A. and have a close partnership with synergetic companies located in Greece, Spain, Israel, Portugal, Brazil, Japan and the U.S.A.

EnginSoft works across a broad range of industries that include the automotive, aerospace, defense, energy, civil engineering, consumer goods and biomechanics industries to help them get the most out of existing engineering simulation technologies.





ITALY info@enginsoft.com

FRANCE info.fr@enginsoft.com

GERMANY info.de@enginsoft.com

UNITED KINGDOM info.uk@enginsoft.com

TURKEY info.tr@enginsoft.com

USA info@enginsoftusa.com



www.enginsoft.com | info@enginsoft.com

ENGINSOFT

DATA SHEET

FEMFAT Software **Fatigue Analysis Software** Finite Element Method based Fatigue Analysis







FEMFAT performs fatigue analyses in combination with widely used finite element programs. Interfaces to multibody, optimization and measurement systems ensure full and convenient integration into the customers' CAE processes. FEMFAT provides engineers with reliable information on the fatigue life of structures to improve critical locations and/or reduce the total weight at an early stage of the design process, long before time-consuming and expensive tests are scheduled. This results in high quality prototypes and less testing



FEMFAT is a product **MAGNA**

effort.

Finite Element Method based Fatigue Analysis

Method, Theory and Validation

- The methods used in FEMFAT are based on ✓ The latest scientific findings of the German FKM guideline ✓ The work of Huck/Thrainer/Schutz (synthetic S/N curves) ✓ The local stress-strain model (TU Darmstadt) ✓ The R1MS concept for the assessment of welding seams ECS-proprietary methods, for example computing the notch influence in terms of the relative stress gradient

software development.

Conclusion

out a fatigue analysis.

Your Benefits

ALSTOM to YAMAHA.

- ✓ Open SPOT and WELD database
- material data set) into binary format
- ✓ Direct and fast visualization
- analysis
- and measurements
- ✓ Renewables Certification by GL Industrial Services GmbH
- ✓ Faster results by parallelized analyses
- ✓ Flexible licensing: purchase, lease or internet license (pay per use)

- More than 1000 successful fatigue-related projects at the Engineering Center Steyr and many more at our customers sites demonstrate the applicability and validity of the methods. All usage provides valuable feedback for our
- FEMFAT is a comprehensive tool that provides quick and reliable answers concerning the release of components. FEMFAT combines know how from the special fields Finite Element Method, characterization of material properties and fatigue testing. Its graphic user interface guides the user step by step. Very few modifications to the default settings are required to carry
- Efficiency and high quality are an absolute must for all our customers, from
- And this is exactly what FEMFAT stands for as a leading fatigue analysis code. Not only the automotive industry benefits from highlights like:
 - ✓ Fatigue life, damage and safety factors for all types of load
 - ✓ Comprehensive FEM-interfaces/material database
 - ✓ FEMFAT Datacrypt for the encryption of ASCII files (e.g. confidential
 - ✓ Assess linear or nonlinear FEM stresses from static or dynamic
 - ✓ More than 500 material datasets and material generator ✓ Interfaces for importing load histories from multi body simulations
 - ✓ Full choice of influence parameters on fatigue analysis