DLUBAL MODULES 2021

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ANALYSIS

RFEM - Structural engineering software for finite element analysis of 2D and 3D structural systems consisting of plates, walls, shells, members (beams), solids and contact elements

STABILITY ANALYSIS
RF STABILITY - Stability analysis according to the eigen value method
RF IMP - Generation of equivalent geometric imperfections and pre-deformed initial structures for nonlinear calculations
MOVING LOADS
RF MOVE - Generation of load cases from moving loads for members
RF MOVE Surfaces - Generation of load cases from moving loads for surfaces
RF INFLUENCE - Determination of influence lines and influence surfaces
CONSTRUCTION STAGES
RF STAGES - Consideration of construction stages during a building phase
GENERAL
FE-LTB - Lateral-torsional buckling analysis of members according to the second-order analysis (FEM)
RF MAT NL - Consideration of non-linear material laws
RF SOILIN - Soil-structure interaction analysis and determination of elastic foundation coefficients based on soil data
RF DEFORM - Deformation and deflection analysis of members and sets of members
RF LAMINATE - Deflection analysis and stress design of laminate and sandwich surfaces
RF LOAD-HISTORY - Simulation of load history by considering cumulative permanent (plastic) deformations
RF LIMITS - Comparison of results with user defined limit values

Please click on the module name for full details.

DESIGN

CONCRETE Add-on modules for RC structures: analyse members and surfaces according to various international standards. It is also possible to perform non-linear analysis (cracked concrete).
RF CONCRETE - Design of reinforced concrete members and surfaces (plates, walls, planar structures, shells)
RF EC2 for RFEM - Extension of the modules for reinforced concrete design by the Eurocode 2 design
RF CONCRETE Columns - Reinforced concrete design according to the model column method (method based on nominal curvature)
RF CONCRETE Deflect - Long term, shrinkage and creep deflection analysis of plate elements
RF CONCRETE NL - Physical and geometrical non-linear calculation of beam and plate structures consisting of reinforced concrete
RF Punch Pro - Punching shear design of foundations and slabs with column and wall supports
RF Foundation - Design of pad bases, bucket and block foundations
RF Tendon - Tendon definition in prestressed concrete members
RF Tendon Design - Prestressed concrete design according to Eurocode 2
STEEL RFEM add-on modules for steel structures: analyse members and surfaces according to Eurocode (including numerous National Annexes) and various international standards.
RF STEEL - Stress analysis of steel surfaces and members
RF STEEL EC3 - Design of steel members according to Eurocode 3
RF STEEL Cold-Formed Sections Module Extension *
RF STEEL BS - Design of steel members according to the British Standards BS 5950-1:2000 or British Annex BS EN 1993-1-1
RF STEEL Plasticity - Plastic design of cross-sections according to the Partial Internal Forces Method (PIFM) and Simplex Method
RF STEEL Fatigue Members - Fatigue design of members and sets of members according to EN 1993-1-9
RF FE-LTB - Lateral-torsional buckling analysis of members according to the second-order analysis (FEM)
RF Plate Buckling - Plate buckling analysis of rectangular plates with or without stiffeners
RF STEEL Warping Torsion - Warping torsion analysis according to the second-order theory with 7 degrees of freedom
RF FRAME - JOINT Pro - Design of rigid bolted frame joints according to Eurocode 3
RF HSS - Design of connections with hollow cross-sections according to Eurocode 3
RF JOINTS Steel - Column Base - Design of hinged and restrained column base footings according to Eurocode 3
RF JOINTS Steel - DSTV - Design of standardised joints in steel structures according to the EN 1993-1-8 - DSTV guidelines
RF JOINTS Steel - Pinned - Design of pinned joints according to Eurocode 3
RF JOINTS Steel - Rigid - Design of restraint joints according to EN 1993-1-8

* requires RF STEEL EC3 & RF STEEL Warping Torsion to run this module

Please click on the module name for full details.

TIMBER RFEM add-on modules for timber structures: analyse members according to Eurocode 5 and other international standards.
RF Timber Pro - Timber member design according to Eurocode 5
RF Laminate - Design of Cross-Laminated Timber Panels (CLT)
RF JOINTS Timber - Timber to Timber - Design of direct timber connections according to Eurocode 5
CONNECTIONS For design of steel and timber connections, there are numerous powerful add-on modules available for RFEM.
RF FRAME - JOINT Pro - Design of rigid bolted frame joints according to Eurocode 3
RF HSS - Design of connections with hollow cross-sections according to Eurocode 3
RF JOINTS Steel - Column Base - Design of hinged and restrained column base footings according to Eurocode 3
RF JOINTS Steel - DSTV - Design of standardised joints in steel structures according to the EN 1993-1-8 - DSTV guidelines
RF JOINTS Steel - Pinned - Design of pinned joints according to Eurocode 3
RF JOINTS Steel - Rigid - Design of restraint joints according to EN 1993-1-8
RF JOINTS Steel - Tower - Design of nominally pinned bolted connections of members used in lattice towers according to Eurocode 3
RF JOINTS Timber - Steel to Timber - Design of indirect timber connections with dowel-type fasteners and steel plates according to Eurocode 5
RF JOINTS Timber - Timber to Timber - Design of direct timber connections according to Eurocode 5
ALUMINIUM RFEM add-on modules for aluminium structures: analyse members and surfaces according to Eurocode (including numerous National Annexes) and various international standards.
RF Aluminium - Design of aluminium members according to Eurocode 9
GLASS Analysis and design of glass structures separately or as part of an entire model.
RF GLASS - Design of single-layer, laminated and insulating glass
DYNAMICS
RF DYNAM Pro - Natural Vibrations - Dynamic analysis of natural frequencies and mode shapes of member, surface, and solid models
RF DYNAM Pro - Forced Vibrations - Dynamic and seismic analysis including time history analysis and multi-modal response spectrum analysis
RF DYNAM Pro - Equivalent Loads - Seismic and static load analysis using the multi-modal response spectrum analysis
RF DYNAM Pro - Non-linear Time History - Non-linear dynamic analysis to external excitations

Please click on the module name for full details.

TOWERS AND MASTS
RF TOWER Structure - Generation of geometrically complex 3D tower structures such as lattice towers and radio masts
RF TOWER - Equipment - Generation of equipment for lattice towers of mobile operators
RF TOWER - Loading - Generation of wind, ice and variable loads for lattice towers
RF TOWER - Effective Lengths - Determination of effective lengths for lattice towers
RF TOWER - Design - Design of triangular and quadrilateral lattice towers according to European standards
RF JOINTS - Steel Tower - Design of nominally pinned bolted connections of members used in lattice towers according to Eurocode 3
PIPING SYSTEMS
RF PIPING - Modelling piping systems
RF PIPING Design - Piping design and pipe stress analysis
TENSILE MEMBRANE STRUCTURES Form-finding and design of tensile membrane structures and determination of the respective cutting pattern.
RF FORM-FINDING - Form-finding of membrane, cable, shell and beam structures
RF CUTTING PATTERN - Cutting patterns for tensile membrane structures
INTERFACE MODULES
RF COM - Programmable interface (API) based on the COM technology
RF LINK - RFEM interface for data import in the formats Step, IGES, ACIS
WIND
WIND Simulation - Wind Simulation (Wind Tunnel)

Please click on the module name for full details.