

SCIA EDITIONS 2026

MODELING

Frame modelling + linear analysis

- Base modeler incl. import and export IFC, DXF, DWG ...
- Default language (interface and documents)
- Productivity toolbox + document generator
- Linear statics 2D
- Linear statics 3D
- Automatic EC bridge combinations
- Surface loads and load panels

Modelling of surfaces and shells + linear analysis

- Planar 2D members (plates and walls)
- Curved 2D members
- Cut-out of 2D members

General cross-section editor

Parametric modelling

3D freeform modeller

INTEROPERABILITY AND BIM

BIM Toolbox

- Conversion from structural model to analysis model, revision management, etc.
- BIM and workgroup toolbox

Revit link

Tekla link

BIMPLUS

LOAD GENERATORS

Climatic loads

- 3D wind generator

Traffic loads 2D

- One load group or several load groups
- Traffic load library
- Train loads on surfaces

Moving loads 1D members

- Moving loads with influence line (1D members)

Moving loads 2D members

- Moving loads with influence surfaces (2D members)

ANALYSIS

Basic non-linear analysis

- Tension only members
- Pressure only support or soil
- Nonlinear springs and gaps
- Geometrical non-linear analysis of frames
- Geometrical non-linear analysis of surfaces

Stability analysis (general buckling form)

- Stability analysis of frames
- Stability analysis of surfaces

Advanced material non-linear analysis

- Plastic analysis (hinges) in steel constructions
- Pressure only surfaces (masonry)
- General plastic analysis of surfaces
- Friction springs

Advanced geometric non-linear analysis

- Cable analysis
- Non-linear stability analysis
- Membrane elements

7 degrees of freedom element (7th DoF)

Soil interaction

- Soil-structure interaction (Soilin)

Material non-linear analysis for concrete

Dynamic eigenmodes analysis

- Eigenmodes frames
- Eigenmodes surfaces

BASIC
FEM STATICS

CONCEPT

STEEL

PROFESSIONAL

ULTIMATE

	BASIC FEM STATICS	CONCEPT	STEEL	PROFESSIONAL	ULTIMATE
Seismic and harmonic analysis <ul style="list-style-type: none"> Advanced dynamics – frames Advanced dynamics – surfaces Harmonic analysis (single frequency) Detailed dynamic results Equivalent lateral forces 		■	■	■	■
Footfall analysis				■	■
Vibration analysis <ul style="list-style-type: none"> Harmonic analysis (frequency range) Out of phase harmonic loads Line and surface harmonic loads RMS results Sign of harmonic load based on eigenshape 					■
Construction stages <ul style="list-style-type: none"> Construction stages –frames Construction stages – surfaces 					■
Prestressing modelling and analysis <ul style="list-style-type: none"> Analysis of prestressed structures Strand patterns Post-tensioned Internal Tendons Post-tensioned External Tendons 					■
CONCRETE DESIGN					
Concrete design of frames and surfaces (theoretical reinforcement) <ul style="list-style-type: none"> Beams and columns – theoretical reinforcement Plates and walls – theoretical reinforcement (incl. steel fiber concrete) 		■		■	■
Concrete punching check <ul style="list-style-type: none"> Concrete punching check – Columns Concrete punching check – Walls 		■		■	■
Practical reinforcement <ul style="list-style-type: none"> Practical reinforcement beams and columns Practical reinforcement plates and walls 		■		■	■
Long term deflection analysis <ul style="list-style-type: none"> Code dependent long term deflections – frames Code dependent long term deflections – surfaces 		■		■	■
Prestressed concrete design <ul style="list-style-type: none"> Prestressed check 					■
STEEL DESIGN					
Steel design and optimization <ul style="list-style-type: none"> Steel code check 		■	■	■	■
Steel design and optimization <ul style="list-style-type: none"> Steel code check – 2nd gen. Eurocodes 			■	■	■
Cold formed steel design <ul style="list-style-type: none"> Cold formed steel check 			■	■	■
Cold formed steel design <ul style="list-style-type: none"> Cold formed steel check – 2nd gen. Eurocode 			■	■	■
Steel fire resistance design <ul style="list-style-type: none"> Steel fire resistance design 			■	■	■
Steel connection design and drawings <ul style="list-style-type: none"> Rigid connections Pinned connections Bolted diagonal connection Connections expert library Grid pinned connections Tubular connections (base) Detailed connection drawings 			■	■	■
Scaffolding checks			■	■	■
Foundation pad design <ul style="list-style-type: none"> Pad foundations 		■	■	■	■

	BASIC FEM STATICS	CONCEPT	STEEL	PROFESSIONAL	ULTIMATE
DESIGN OTHER MATERIALS					
Timber design and optimization · Timber and CLT design		■		■	■
Aluminium design and optimization				■	■
Composite beam design				■	■
Composite column design				■	■
OVERVIEW DRAWINGS					
General overview drawings			■	■	■
OTHER ADD-ONS					
Toolbox 'Open Design' · Toolbox: integration SCIA Design Forms in SCIA Engineer · Script editor SCIA Design Forms				■	■
Other languages · All other languages (interface and documents)	■	■	■	■	■