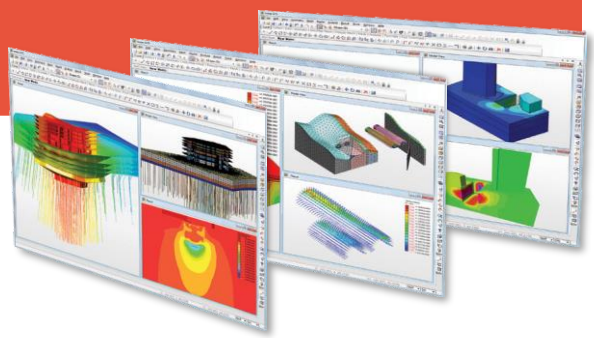
midas GTSNX



GTS NX is finite element analysis software for advanced geotechnical analysis of soil and rock deformation and stability, as well as groundwater flow, dynamic vibrations and soil-structure interaction in 2D and 3D.

For Who? GTS NX is used for analysis, testing, and design by geotechnical, civil, and mining engineers. It is designed to adapt any kind of geotechnical project. The intuitive interface will enable new users to easily integrate the software in their work process.

Advantages The fast analysis speed, outstanding graphics, and output capabilities will provide users with a new and advanced level of geotechnical design.

01. Versions

Standard Version

Terrain Geometry Maker

Real 3D Geometry Modeling

Powerful mesh Generator

Excavations and Open Pit

Retaining Wall

Soil-Structure Interaction

Pile Foundation

Diaphragm Wall

Tunneling and Mining

Fast Analysis Solver

Outstanding Post-processing

Geometry Modeller

- Import CAD File (Parasolid, DXF, DWG, MXT(midas GEN/CIVIL))
- Point/Curve/Surface/Solid/Advanced Modelling
- Bedding Plane Wizard (3D Ground Stratigraphy from Borehole Data)
- Terrain Geometry Maker (TGM)

Element Library

- 1D Type (Truss/Embedded Truss/Beam/Pile/Geogrid)
- 2D Type (Shell/Plane Stress/Plane Strain/Geogrid/Gauging Shell/Axisymmetric)
- 3D Type (Tetrahedron/Pyramid/Wedge/Hexahedron) Other Type (Spring/Interface/Shell Interface/Link/Pile Tip)
- Bonded Contact Element

Mesh Generation (Auto/Map/Hybrid/Protrude Mesh Generation)

Material Models

- Linear Elastic
- Orthotropic (Transversely Isotropic/Jointed Rock Mass)
- Elasto-plastic (Tresca/von Mises/Mohr-Coulomb/Drucker-Prager/Hoek-Brown/ Modified Cam-Clay/Jardine (London clay)/Modified Mohr-Coulomb)
- Nonlinear Elastic (Hyperbolic (Duncan-Chang)/D-Min) Strain Softening
- User supplied material for Plane Strain, Shell Joints and Volumetric Elements
- Elastic/Coulomb Friction Interface

Analysis Capabilities (64bit/GPU Solver, Batch Analysis and Parametric Analysis)

- Static Analysis (Linear, Nonlinear)
- Construction Stage Analysis (Drained, Undrained)

Wizard (Tunnel/Anchor Modelling Wizard)

Post-Processing

- Contour/Vector/Diagram Plots
- Advanced Features (Probe/Multi Step Iso Surface/Extract/Cutting Diagram/Others)
- 3D Dynamic PDF Report

02. Options

Additional Options

Slope Stability

Dams

Groundwater Flow

Dynamic Analysis

Earthquake Deformations

Slope Stability Analysis

- Strength Reduction Method (SRM)
- Stress Analysis Method (SAM)
- Construction Stage Analysis

Seepage Analysis

- Steady-State Analysis
- Transient Analysis
- Sequential Seepage-Stress Analysis
- Construction Stage Analysis

Consolidation Analysis

- Coupled Seepage-Stress Analysis (Static Boundary Conditions)
- Construction Stage Analysis

Dynamic Analysis

- 1D Ground Response Analysis
- 2D Equivalent Linear Analysis
- Eigenvalue Analysis
- Response Spectrum Analysis
- Time History Analysis (Linear, Nonlinear)
- Nonlinear Time History Analysis with SRM

Fully Coupled Analysis

- Fully Coupled Stress-Seepage Analysis (Transient Boundary Conditions)
- Construction Stage Analysis