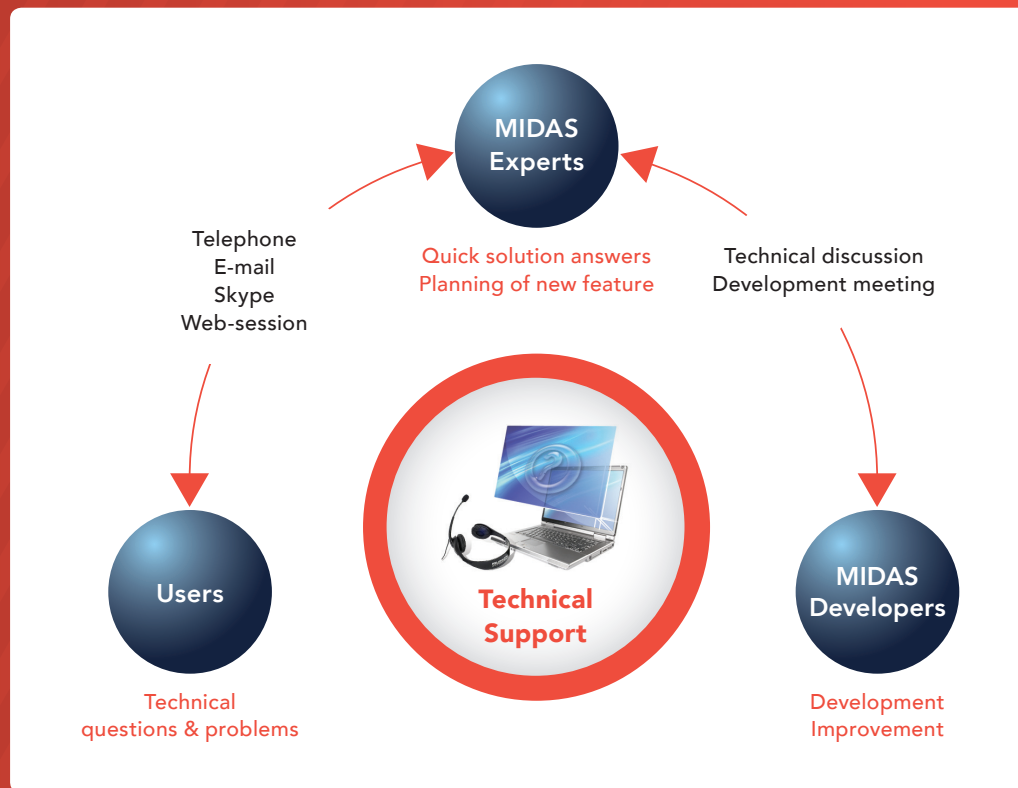


MIDAS Technical Support System



MIDAS Key Clients In the World



Contact information

If you have any inquiries for purchasing or trial request, feel free to contact us.
malaysia@midasit.com | en.midasuser.com

MIDAS Customer Online Support Website

<http://globalsupport.midasuser.com>



midas GTS NX | One-Stop Geotechnical Solution for 2D & 3D Analysis

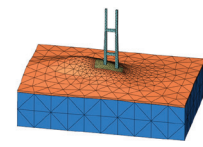
Strong Suit of midas GTS NX for Geotechnical Engineer



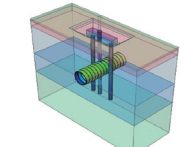
01

Full range of geotechnical analysis for 2D and 3D - All in One solution

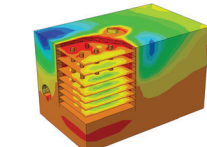
GTS NX supports various kind types of analysis including static, dynamic, seepage, stress-seepage coupled, consolidation, construction stage and slope stability analysis. GTS NX is the proven numerical modelling software used by many international geotechnical firms. Selected practical applications of GTS NX are shown in the below.



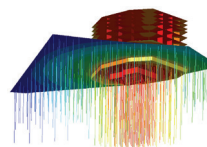
Foundation



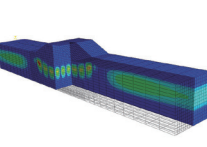
Metro



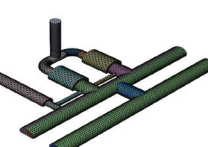
Deep excavation



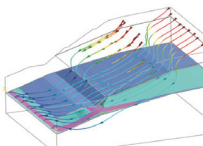
Pile foundation



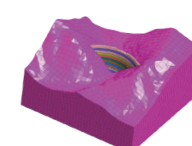
Consolidation



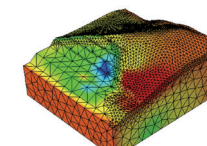
Tunnel



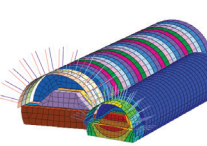
Seepage



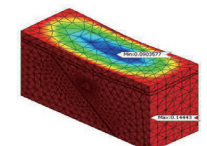
Dam



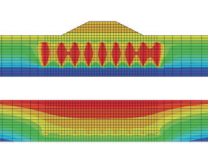
Slope stability



Construction stage



Dynamic



Ground improvement

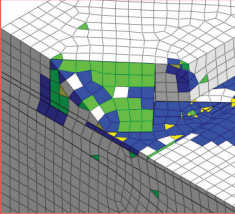
02

High quality hybrid mesh capability for extracting accurate results without any meshing difficulties and errors

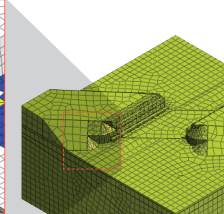
- Optimized mesh generation of various element types (2D Auto Mesh, 3D Auto Mesh, 3D Map Mesh)
- Size control optimizes mesh in the areas of high strain and displacement by assigning fine mesh elements
- Combination of 1D, 2D and 3D elements / Extrude 2D mesh into 3D

Advance meshing capability prevents any meshing difficulty and errors during modelling and priorly analysis. Thus the most complex structures can be also modeled. Moreover, it is fully optimized for 64-bit Platform provide users with fast and advanced level of geotechnical design and outputs.

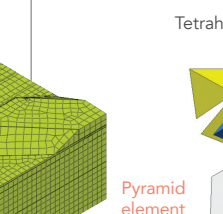
Hybrid Element Composition



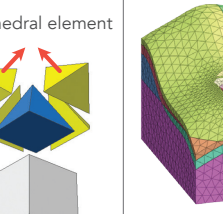
Hexahedral elements



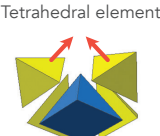
Tetrahedral elements



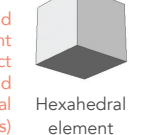
Pyramid elements



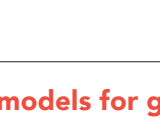
Triangular prism elements



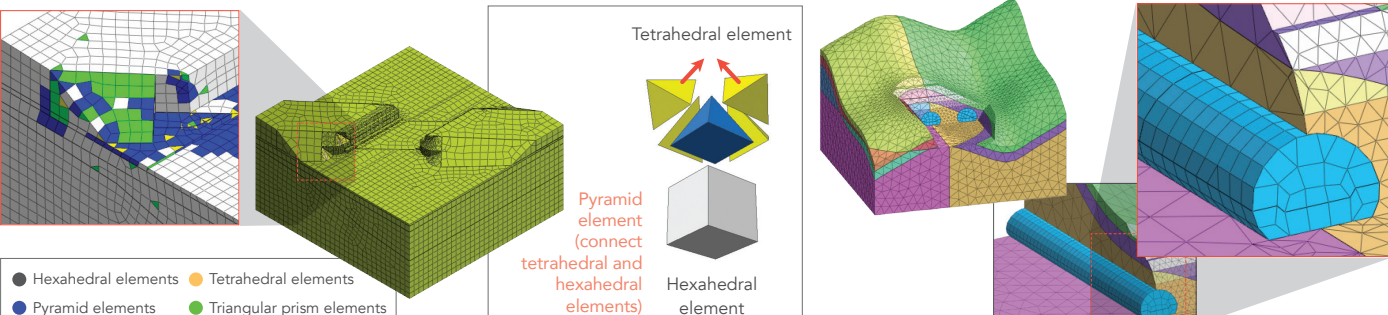
Tetrahedral element



Pyramid element (connect tetrahedral and hexahedral elements)



Hexahedral element

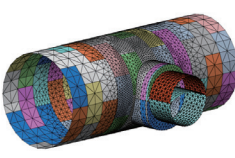


03

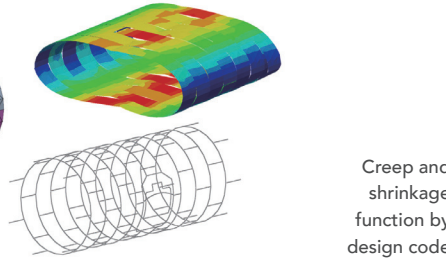
Various elements and material models for ground and structural modelling

Elements are classified into the following categories: line, plane, solid and other types. In line type, there are embedded truss, non-linear beam element as well as tension only and compression only elements. In plane type, plate element for the shotcrete or lining, gauging shell element for obtaining the member forces of solid element. Also, there are interface elements, used to allow slip, 3D pile elements, etc.

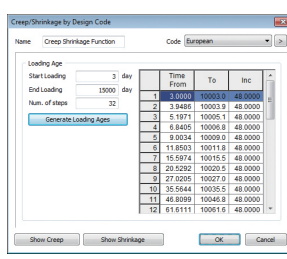
GTS NX supports different material models to simulate the behavior of soil, rock and other continua. Especially, an advanced elastoplastic model for concrete and shotcrete structures can be considered. It simulates the time-dependent strength and stiffness of concrete as well as creep and shrinkage function by design code.



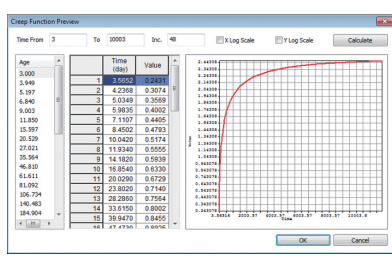
Shell interface element



Creep and shrinkage function by design code



Creep Function Preview

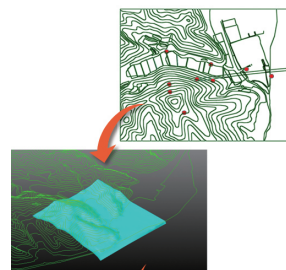


Creep Function Preview

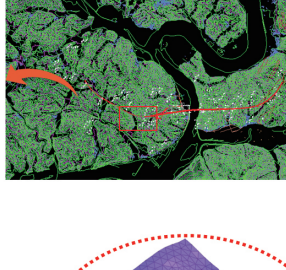
04

Efficient modelling with automation tools and CAD file import

GTS NX features a high-end 'Terrain Geometry Maker (TGM)' that automatically converts digital topographic maps into editable surfaces. It is also equipped with a 'Bedding Plane Wizard' that enables us to model uneven soil strata with ease. We can directly utilize our soil profile by entering the boring log data for different locations. The program will then automatically extrapolate the changes in soil levels between each point to allow us to generate our soil layers.



Create 3D ground surface using topographic map



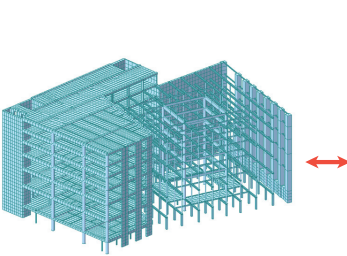
Automatically generate 3D geological stratum through actual field data

05

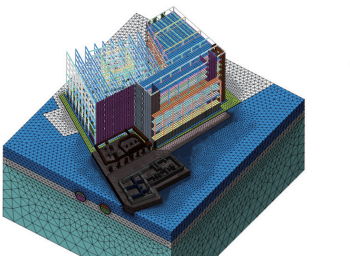
Interaction between MIDAS structural software (midas Gen & midas Civil)

GTS NX can import model information such as mesh, material, structure cross section and load & boundary condition from MIDAS structural software (midas Gen & midas Civil). Furthermore, spring stiffness of soil from GTS NX will be able to export to Gen or Civil for the final structure analysis and design.

The CAD interface transfers project data for expanded analysis requiring soil-structure interaction and detailed 3D investigation such as bridge abutment & pier and high-rise building foundations.



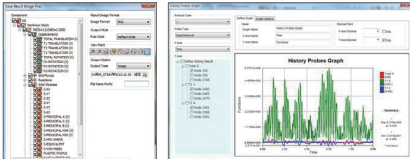
Risk assessment for a building during tunnel construction



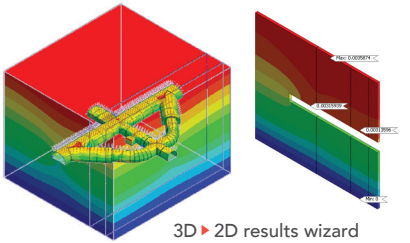
Soil structure interaction by direct method for a bridge

06

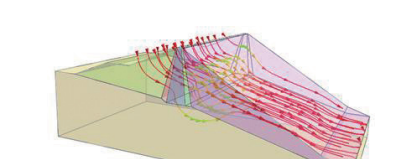
Excellent Result Display Supported by Powerful Graphic Engines



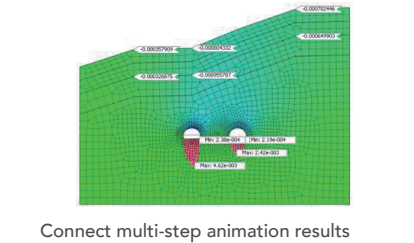
Printing result images/graphs



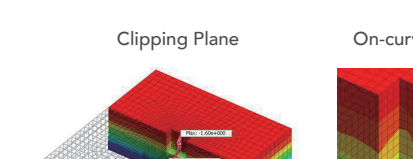
3D to 2D results wizard



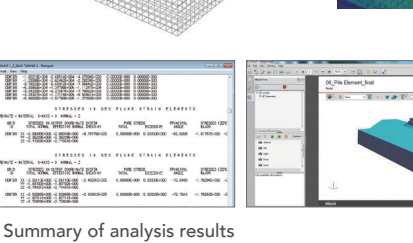
Clipping Plane



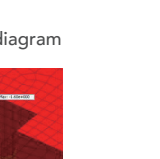
On-curve diagram



Connect multi-step animation results



Summary of analysis results



3D PDF